Key Name	Key Number	Type	Default Setting
PSKEY_BDADDR	0x0001	bdaddr	0x00A5A5, 0x5b, 0x0002

The local device's Bluetooth address. This should be unique to this device - allocated during manufacturing.

本地设备的蓝牙地址。它应该是该设备分派在生产期间的唯一地址。

The type bdaddr can be viewed as a uint16[4] array:

类型 bdaddr 可以被视为一个 unit16[4]的排列：

1st uint16: The top 8 bits of the LAP are in the bottom 8 bits of this word. The top 8 bits of this word must be zero.

LAP 的前 8 位在这一命令的末端 8 位中。这一命令的后 8 位必须为 0。

2nd uint16: lower 16 bits of the LAP

AP 的低 16 进位。

3rd uint16: The 8 bit UAP is in the bottom 8 bits of this word. The top 8 bits of this word must be zero.

UAP 的第 8 位在这一命令的末端 8 位中。这一命令的后 8 位必须为 0。

4th uint16: 16 bit NAP

16 位 NAP。

For example, the Bluetooth address 123456789abc is encoded as 0078, 9abc, 0056, 1234.

例如，蓝牙地址 123456789abc 的编码可译为 0078, 9abc, 0056, 1234。

The default value of this key is one of CSR's legal addresses: 00025b00a5a5.

该键的省略补充是 CSR 的合法地址之一：00025b00a5a5.

As stated in the Bluetooth specification, LAP values from 9e8b00 up to, and including, 9e8b3f must not be used as this range is reserved for inquiry access codes (IACs).

按照蓝牙说明所规定的，从 9e8b00 一直到 9e8b3f（包括 9e8b3f 在内）的 LAP 值不能用于这一范围的调查选存取码。

Bluetooth module manufacturers must obtain their own block of addresses from the Bluetooth SIG/IEEE. If CSR's experience is typical, these authorities define the NAP and UAP, allowing manufacturers to set the 24 bit LAP.

蓝牙模块制造商必须从蓝牙 SIG 或 IEEE 那里获得他们自己的自组地址。如果 CSR 的经验是具有典型性的，那么这些权威人士所定义的 NAP 和 UAP 将允许制造商装置 24 位的 LAP.

Key Name	Key Number	Type	Default Setting
PSKEY_COUNTRYCODE	0x0002	uint16	0

North America and most of Europe use a particular block of 79 radio frequencies for Bluetooth, but not all countries allow use of these frequencies. Some countries allow the use of different blocks of frequencies. This key selects the frequency blocks used by these exceptional countries.

北美和大部分欧洲国家常使用一种特殊的 79 无线电频率码块，但并不是所有的国家都允许使用这一频率。一些国家允许使用不同的频率码块。这些例外的国家用该键选择频率码块。

Over time most countries are adopting the default 79 frequency block, so the need for this value is diminishing. At the time of writing this comment it is expected that France, Spain and Japan will use the

default frequency block by January 2001.

随着时间的过去大部分国家都采用了默认值 **79** 频率码块，所以该值的使用率逐渐缩小。在撰写该注释时，我们期望法国，西班牙和日本也将在 **2001** 年一月开始使用这一默认频率码块。

0 North America and Europe, except ... 北美和欧洲，除了

1 France 法国

2 Spain 西班牙

3 Japan 日本

Key Name	Key Number	Type	Default Setting
PSKEY_CLASSOFDEVICE	0x0003	bdcod	0

The local device's default Bluetooth "class of Device" or CoD.

本地设备的默认蓝牙“设备驱动程序等级”或简称 **CoD**。

Type bdcod is really a uint32. The class of device is a 24 bit value stored in a uint32; the highest byte must be zero.

类型 **bdcod** 是真正的 **unit32.**该设备的驱动程序等级是一个存储在 **unit32** 中的 **24** 位数值；它的最高字节必须为 **0**。

This is the device's default class of device, used when the device boots. The device's class of device may subsequently be changed by an HCI command. The HCI command does not change the value stored under this pskey.

这是该设备驱动程序在启动时所使用的设备驱动程序的默认等级。该设备的驱动程序等级可能会随着 **HCI** 命令而改变。**HCI** 命令不会改变存储在 **pskey** 之内的数值。

The least significant two bits reveal the format of the other 22 bits. The only format currently defined is for where the two bits are zero:

最低有效的两位展示了其它 **22** 位的排列格式。单独的排列格式通常用于定义在那两位为零的位置。

Bits Content 位目录

1 - 0 Format Type (0) 排列格式类型（**0**）

2 - 7 Minor Dev Class (in the context of the Major Dev Class) 较低的 **Dev** 等级

8 - 12 Major Dev Class 13 - 23 Major Service Class 较高的 **Dev** 等级 **13—23** 较高的 **Service** 等级

At the time of writing this comment the firmware makes no use of this knowledge.

在撰写该注释时，该硬件并没有使用这一知识。

Key Name	Key Number	Type	Default Setting
PSKEY_DEVICE_DRIFT	0x0004	uint16	250

This should hold the local device's radio drift in parts per million. The maximum value allowed by the Bluetooth specification is 250.

它控制本地设备在每百万个无线电接收装置的流速。蓝牙说明中所允许的最大值为 **250**。

This value is used in LMP_timing_accuracy_res messages sent to peers, as described in Bluetooth version 1.1, LMP specification, section 5.2. It is also used in calculations in low power modes to decide for how long the radio on a slave device must be turned on in order to resynchronise with a remote master: reducing the value therefore allows power saving.

这一数值如蓝牙译文 **1.1LMP** 说明 **5.2** 节中所描述的，是用于 **LMP_timing_accuracy_res** 信息的同等级传递。它也被用于在低功耗模式计算，以决定无线电接收装置必须多久打开，以便与远程主机 **resynchronise**：

由减少的价值获得能量的节约。

The default value is appropriate when BlueCore's internal low power oscillator is in use to maintain timing during low power modes. This is true for the default PS settings. There are two occasions on which this key might usefully be decreased.

默认值在 **BlueCore** 的内部低功率振荡器使用过程中应保持适当的低功率模式。这是正确的 **PS** 设置默认值。有两个原因导致这一键值可能有效地减少。

- If PSKEY_DEEP_SLEEP_STATE is not set to its default value 1 (use deep sleep whenever possible), the low power oscillator will not be used and the value of this PS key can be set to 20 to reflect normal Bluetooth connection accuracy in low power modes.

如果 **PSKEY_DEEP_SLEEP_STATE** 设置为默认值 **1**（尽可能的使用深睡眠），低功率振荡器将不再被使用这一 **PS** 键值可以设置为 **20**，从而反映正常的蓝牙在低功率模式时连接的准确性。

- If PSKEY_DEEP_SLEEP_USE_EXTERNAL_CLOCK is set to TRUE, then the value of this PS key may be set to the worst-case accuracy of the external clock in use, in parts per million.
- 如果 **PSKEY_DEEP_SLEEP_USE_EXTERNAL_CLOCK** 设置为 **TURE**，则这一键值可能被设置为百分之一的在使用中的外部时钟的最坏情况下的准确性。

Key Name	Key Number	Type	Default Setting
PSKEY_DEVICE_JITTER	0x0005	uint16	10

This should hold the local device's radio jitter in microseconds. (LMP v1.1, section 5.2.)

这一数值可控制本地设备的无线电流速在每微妙内的速度偏差（**LMP v1.1, section 5.2**）

This value is used in LMP_timing_accuracy_res messages sent to peers. This is the only use made of this pskey.

这一数值是用于 **LMP_timing_accuracy_res** 信息的同等级传递。这是只用于解释这个 **pskey** 的

Key Name	Key Number	Type	Default Setting
PSKEY_MAX_ACLS	0x000d	uint16	7

The maximum number of concurrent ACL connections to other devices.

这是并存的 **ACl** 与其他设备连接的最大数量。

Links to remote devices use substantial amounts of RAM to maintain connection state, so this value should be kept modest. It is advisable to trim this value to match the application, allowing any liberated RAM to be used elsewhere. The value must be reduced if the chip is running any of the higher layers of the Bluetooth stack as these take from the common supply of RAM.

使用大量的 **RAM** 链接到远程设备保持连接状态，所以这个值应保持适中。最好是调整这个值，使它符合应用程序，从而允许任何释放的 **RAM** 在任何地方都可以使用。如果这个芯片是运行在任何更高的蓝牙堆积层次，并作为 **RAM** 的共有的供给，那么这个值必须要减少。

Key Name	Key Number	Type	Default Setting
PSKEY_MAX_SCOS	0x000e	uint16	3

The maximum number of SCO links to (all) other devices.

SCO 与其他（所有）设备连接的最大数量。

The firmware may use a value lower than 3, e.g., because SCO data can only flow over the BlueCore01b's single PCM interface.
该韧件可能使用一个低于 3 的数值，如，因为 SCO 数值可能只对 BlueCore01b 的单一 PCM 界面没有影响。

Key Name	Key Number	Type	Default Setting
PSKEY_MAX_REMOTE_MASTERS	0x000f	uint16	2

The local device's maximum number of remote piconet masters.
远程 piconet 主设备的本地设备最大数量。
Connecting to multiple remote masters implies the use of scatternets. The current firmware supports one permanent remote master, plus a second remote master in a temporary state either for performing a remote name request or in order to connect by a role switch to become a slave.
连接多重远端住设备意味着使用 scatternets。目前，固件支持一个永久的远端主设备，和一个暂时性的第二个远端主设备，要么为了履行一个远端名称请求，要么为了转换为一个从设备去连接。
See the description of PSKEY_ENABLE_MASTERY_WITH_SLAVERY.

Key Name	Key Number	Type	Default Setting
PSKEY_ENABLE_MASTERY_WITH_SLAVERY	0x0010	bool	TRUE

If set TRUE (value 1) then the firmware is configured to support being a master of its own piconet at the same time as being a slave in one or more other piconets. This implies the use of scatternets.
如果设置为 TURE，那么硬件被设计为支持变成一个主设备同时变成一个从设备在 1 个或更多 piconet。它指示了 scatternets 的作用。
This value is constrained by the value of the pskey PSKEY_MAX_REMOTE_MASTERS.
这一值被 PSKEY_MAX_REMOTE_MASTERS.所控制
该值受 pskey PSKEY_MAX_REMOTE_MASTERS 值的控制。
The "barge-in" connection sequence (an existing master page-scans, it is paged by new a device, then the new device's link performs a master/slave switch) implies a temporary scatternet. This pskey does not affect this behaviour.
"Barge-in"链接序列（一个现有的主页扫描，它由一个新的设备标明页数，该新的设备的链接完成一个主次开关的切换）意指一个临时的 scatternet。这个 pskey 不影响习性。
See the description of PSKEY_MAX_REMOTE_MASTERS.
参见 PSKEY_MAX_REMOTE_MASTERS 的说明。
(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)
（类型 bool 是一个基本地以 0 和 1 为值的 unit16，它映射出了 FALSE 和 TRUE）

Key Name	Key Number	Type	Default Setting
PSKEY_H_HC_FC_MAX_ACL_PKT_LEN	0x0011	uint16	310

The maximum acceptable length, in bytes, of the data portion of HCI ACL data packets received from the host. This supports the Host_Buffer_Size HCI command.
在字节中，它是 HCI ACL 数据包从主机那里接收到的部分数据中可接受的最大限度长度。它支持 Host_Buffer_Size HCI 命令。

It sometimes makes sense to tune this value to obtain better device throughput, but the product of the values of this key and of PSKEY_H_HC_FC_MAX_ACL_PKTS should be kept constant as this effectively reserves a block of the device's precious RAM for use by the host.

Key Name	Key Number	Type	Default Setting
PSKEY_H_HC_FC_MAX_SCO_PKT_LEN	0x0012	uint8	64

The maximum acceptable length, in bytes, of the data portion of HCI SCO data packets received from the host. This supports the Host_Buffer_Size HCI command.

在字节中，它是 HCI SCO 数据包从主机那里接收到的部分数据中可接受的最大限度长度。它支持 Host_Buffer_Size HCI 命令。

It sometimes makes sense to tune this value to obtain better device throughput, but the product of the values of this key and of PSKEY_H_HC_FC_MAX_SCO_PKTS should be kept constant as this effectively reserves a block of the device's precious RAM for use by the host.

有时这个值特意调整这个值去获得更好的设备吞吐量。但是这一键值和 PSKEY_H_HC_FC_MAX_SCO_PKTS 键值的结果必需始终如一，用于主机有效的存储设备的宝贵 RAM 始终。

This value should be changed only with great care: small values will heavily load the (host and) chip processor(s), whereas large values will normally increase audio latency.

这个值在改变时应谨慎小心：小的数值将给芯片处理器该来沉重的负担，反之，庞大的数据通常会增加音频的等待时间。

Key Name	Key Number	Type	Default Setting
PSKEY_H_HC_FC_MAX_ACL_PKTS	0x0013	uint16	10

The maximum number of HCI ACL data packets being sent to air that can be held within the chip at any time.

HCI ACL 数据包的最大数值将被发送到空间，它任何时候都控制在芯片内部。

This supports the Host_Buffer_Size HCI command.

它支持 Host_Buffer_Size HCI 命令。

See the description of PSKEY_H_HC_FC_MAX_ACL_PKT_LEN.

参见 PSKEY_H_HC_FC_MAX_ACL_PKT_LEN 的说明。

Key Name	Key Number	Type	Default Setting
PSKEY_H_HC_FC_MAX_SCO_PKTS	0x0014	uint16	8

The maximum number of HCI SCO data packets being sent to air that can be held within the chip at any time.

HCI SCO 数据包的最大数值将被发送到空间，它任何时候都控制在芯片内部。

This supports the Host_Buffer_Size HCI command.

它支持 Host_Buffer_Size HCI 命令。

See the description of PSKEY_H_HC_FC_MAX_SCO_PKT_LEN.

参见 PSKEY_H_HC_FC_MAX_SCO_PKT_LEN 说明。

Key Name	Key Number	Type	Default Setting
PSKEY_LC_FC_BUFFER_LOW_WATER_MARK	0x0015	lc_fc_lwm	0x0600, 0x0700, 0x0800

A set of values that control the assertion of flow control for data received from air.

一组控制流控制的 **assertion** 用于空间数据接收。

The LC determines how much buffer memory has been promised to the host for host to air traffic, then it adds the safety margins set by this key and compares the result with the available free buffer memory. The result determines when and how the LC applies flow control for data received from air.

LC 决定了有多少缓冲存储器被允许到主机用于主机到空间的传输。 这一键值增加了安全范围的设置，并于可用的空闲缓冲器做比较。

The key holds an array of three values. Each value sets a behaviour threshold, measured in a number of bytes:

这一键值保持 **3** 组值，每一个值设置一个行为，详述每节：

0) Received data is discarded and a NAK is returned. 丢弃被接收的数据，一个 **NAK** 返回。

1) ACL flow control is asserted. **ACL** 流数据有待证实

2) L2CAP flow control is asserted. **L2CAP** 流数据有待证实

Buffalo water mark?

Key Name	Key Number	Type	Default Setting
PSKEY_LC_MAX_TX_POWER	0x0017	int16	4

The device's maximum transmit power in dBm.

设备的发射功率最大值。

The firmware ensures the device never speaks more loudly that this value.

硬件确保设备发射功率绝不大于这个值。

The firmware uses the highest value in the power table that is less than or equal to the requested default power.

硬件使用功率表中的最高值少于或者胜于请求的默认功率。

Correct operation depends having a valid power table - see PSKEY_LC_POWER_TABLE.

正确的操作依赖于拥有一个恰当的功率表。见 **PSKEY_LC_POWER_TABLE**

The maximum value depends on the Bluetooth module class:

最大值随蓝牙单元而定：

Class 1: 0 to +20 dBm.

Class 2: -6 to +4 dBm.

Class 3: up to 0 dBm.

Unlike most pskey values, this is a *signed* 16 bit integer.

与大部分 **PSKEY** 值不同，这是一个“单一”的 **16** 位整数。

Key Name	Key Number	Type	Default Setting
PSKEY_TX_GAIN_RAMP	0x001d	uint16	0x1810

The device's transmitter gain ramp rate. This controls the power ramp-up at the start of a packet and ramp-down at end of a packet.

设备发送者增加斜率。这控制一个数据包的初始上升斜率和末尾下降斜率。
For BlueCore01b, the key's range is normally 0x04 to 0x3f. 0x04 gives the slowest ramp rate.
对于 **BlueCore01b**，键值的范围通常在 **0x04** 到 **0x3f**。**0x04** 给出了最慢斜率。
Although the hardware supports values below 0x04, using them will put the software timings so far out that the module may not work.
虽然硬件支持值低于 **0x04**,使用它们将使软件时速超出模块不工作的值。
The key's value has different effects according to whether the module uses the chip's internal power amplifier or an external amplifier. (See PSKEY_TXRX_PIO_CONTROL.)
这一键依照是否模块使用芯片的内在功率放大器或一个外部放大器而具有不同的结果（见 **PSKEY_TXRX_PIO_CONTROL**）
If the internal power amplifier is ramped then the microseconds taken to complete the ramp is (4*final_value)/ramp_rate.
如果内置功率放大器设置斜率那么斜率为**(4*final_value)/ramp_ra**t
If an external power amplifier is ramped then the microseconds taken to complete the ramp is (final_value)/ramp_rate.
如果一个外部功率放大器被设置斜率，那么斜率为**(final_value)/ramp_rate.**
In both cases the final_value is taken from PSKEY_LC_POWER_TABLE.
基于所有的原因，最终值源于 **PSKEY_LC_POWER_TABLE.**
Key value zero has a special behaviour - power is applied without a ramp.
0 值具有一个特别的行为，功率在没有斜率的情况下被使用。

Key Name	Key Number	Type	Default Setting
PSKEY_LC_PEER_POWER_PERIOD	0x001f	TIME	1 * SECOND

The period, measured in microseconds, between attempts to change a peer's transmit power. The same interval is used for measurements of channel quality to support LMP channel quality driven data rate messages.
尝试改变一个同等传输功率微秒校准周期。同样的间隔用于测量信道品质以支持 **LMP** 信道品质驱动数据比率信息。
Setting this to zero disables the periodic checks. This means the local device will not send messages concerning power management or channel quality driven data rate to the remote device. It will, however, continue to respond correctly to such messages sent by the remote device.
设置这一值为 **0** 取消定期检查。这以为着本地设备将不发送关于功率管理或信道品质驱动数据比率信息到远端设备子。它将，无论如何，为远端设备发来的同类信息做出连续恰当的反映。
(Type TIME is fundamentally a uint32. Value SECOND is 1000000. Value MILLISECOND is 1000.)

Key Name	Key Number	Type	Default Setting
PSKEY_LC_FC_POOLS_LOW_WATER_MARK	0x0020	lc_fc_lwm	0x0014, 0x0018, 0x001a

As PSKEY_LC_FC_BUFFER_LOW_WATER_MARK, but describing numbers of available pool memory blocks.
描述一些可利用的联合存储区域。

Key Name	Key Number	Type	Default Setting

PSKEY_LC_DEFAULT_TX_POWER	0x0021	int16	4

The radio's default transmit power, measured in dBm. The chip uses this for page, inquiry and their scan responses. This is also the power used for new connections.

无线传输默认传输功率，dBm 标准。芯片将它用于寻呼，查询，和它们的扫描响应。这也是用于新的连接的功率。

In 12.X builds the firmware uses the entry in the power table that is closest to this pskey's value. (If the two closest power tables are equidistant from this key's value then it is indeterminate which power table entry is used.)

在 12.x 结构，固件使用接近这一键值的功率表中的条目入口。（如果两个最接近的功率表等距为这一键值，那么，那么将不确定哪个功率表条目被使用）

In 13.X and later builds the firmware uses the highest value in the power table that is less than or equal to the requested default power.

在 13.x 及之后的结构，固件只用功率表中小于或等于被请求的默认功率的最高值。

Correct operation depends on the the device having a valid power table - see PSKEY_LC_POWER_TABLE.

正确的操作依赖于一个有效的功率表-见 PSKEY_LC_POWER_TABLE

Key Name	Key Number	Type	Default Setting
PSKEY_LC_RSSI_GOLDEN_RANGE	0x0022	uint8	80

The RSSI signal used to measure the signal strength relative to the golden receive range as defined in section 4.7 of part A of the Bluetooth spec.

RSSI 信号用于测量相对于重要接收范围的信号强度。在蓝牙详述 4.7 部分定义。

Pre 19.x builds:

19.x 结构：

With the attenuator setting specified in PSKEY_LC_ATTEN_GOLDEN_RANGE_MINIMUM you should get this RSSI reading for a signal at the bottom of the golden receive range. With the attenuator setting specified in PSKEY_LC_ATTEN_GOLDEN_RANGE_MAXIMUM you should get this RSSI reading for a signal at the top of the golden receive range.

PSKEY_LC_ATTEN_GOLDEN_RANGE_MINIMUM 指定的衰减设置，你需要在重要接收范围底部获得一个信号的 RSSI 解释。PSKEY_LC_ATTEN_GOLDEN_RANGE_MAXIMUM 指定衰减设置，你需要在重要接收范围的顶部获得一个信号的 RSSI 解释。

Taking this signal above 90 can lead to faulty behaviour. If a -60 dBm signal with an attenuation of 1 gives an RSSI above 90 then leave this setting at 90 as you have a module with good sensitivity. By leaving this setting at 90 devices you're talking to will be able to lower their transmit power and thus reduce interference between units.

设置这一信号在 90 以上可能导致错误行为。如果一个 60dBm 信号伴随一个 1 衰变提供一个高于 90 的 RSSI，那么当你拥有一个高灵敏度模块时请不要设置为 90.当你命令设备这一设置离开 90，将可以降低它们的传输功率并因此见效单位冲突。

19.x builds and some 20.x builds:

19.x 结构和一些 20.x 结构：

In builds where PSKEY_LC_ATTEN_GOLDEN_RANGE_MINIMUM and PSKEY_LC_ATTEN_GOLDEN_RANGE_MAXIMUM have been removed, this should be the RSSI

reading at zero attenuator setting when the received power is at the bottom of the golden range. The top of the golden range is placed 20 dBm above this.

在 与 **PSKEY_LC_ATTEN_GOLDEN_RANGE_MINIMUM** 和 **PSKEY_LC_ATTEN_GOLDEN_RANGE_MAXIMUM** 无关的结构中，它需要是 **RSSI** 读取衰减置零，当被接收功率在黄金范围的底部。黄金范围的顶部比这一值高 **20 dBm**

21.x builds and some 20.x builds:

2.1x 结构和一些 **2.0x** 结构：

In builds where PSKEY_PREFERRED_MIN_ATTENUATION exists, with the attenuator setting specified in PSKEY_PREFERRED_MIN_ATTENUATION, you should get an RSSI value of PSKEY_LC_RSSI_GOLDEN_RANGE for a signal at the bottom of the golden receive range. The top of the golden range is placed 20 dBm above this.

在 **PSKEY_PREFERRED_MIN_ATTENUATION** 存在的结构中，**PSKEY_PREFERRED_MIN_ATTENUATION** 内的衰减器设置描述，需要为在黄金万为底部的信号设置一个 **PSKEY_LC_RSSI_GOLDEN_RANGERSSI** 值。黄金范围的顶部比这一值高 **20 dBm**

Key Name	Key Number	Type	Default Setting
PSKEY_LC_COMBO_DISABLE_PIO_MASK	0x0028	uint16[]	none

A three-element array of uint16s specifying the use of PIO lines to disable non-priority Bluetooth transmissions:

16 位无符号整数三维数组制定使用 **PIO** 口使得非优先权的蓝牙传送无能力

{ uint16 pio_mask, uint16 pio_invert, uint16 pio_logic }

Bits 0 to 15 of "pio_mask" and "pio_invert" map to PIO0 to PIO15 respectively.

Pio_mask 和 **pio_invert** 的 **0** 到 **15** 分别映射到 **PIO0** 到 **PIO15**

A bit of "pio_mask" set to high enables use of the corresponding PIO pin to disable Bluetooth transmit.

一位“**pio_mask**”引脚设置为高可以使相应的 **PIO** 引脚禁止蓝牙传输。

A bit of "pio_invert" set to high indicates that the corresponding PIO pin is active low instead of active high.

一位“**pio_invert**”设置为高表明相应的 **PIO** 引脚为活动的低电平而非活动的高电平。

If the "pio_logic" value is zero then any combination of the PIO lines being asserted will disable Bluetooth transmissions (logical OR), otherwise all of the specified PIO lines must be asserted to disable transmissions (logical AND).

如果 **pio_logic** 的值是 **0**，那么所有 **PIO** 线路的组合将被维持将使得蓝牙无法传输（逻辑或），否则，所有被制定的 **PIO** 线路必须被维持无法传输（逻辑与）。

This PS key is primarily intended for use by IEEE 802.11b combo designs. The signalling is used to disable Bluetooth transmissions that may degrade 802.11b throughput.

这一 **PS key** 主要为使用 **IEEE 802.11b** 而设计。该信号是用来禁用蓝牙传输从而降解的 **802.11b** 吞吐量。

Summary: Non-priority Bluetooth transmissions are disabled in accordance with the following logic:

综述：非优先蓝牙传输将参照以下逻辑丧失能力：

masked = (PIO ^ pio_invert) & pio_mask

disable = pio_logic ? masked != 0 : masked == pio_mask

Key Name	Key Number	Type	Default Setting

PSKEY_LC_COMBO_PRIORITY_PIO_MASK	0x0029	uint16[]	none

A two-element array of uint16s specifying the use of PIO lines to indicate the occurrence of priority Bluetooth activity (transmit or receive):

{ uint16 pio_mask, uint16 pio_invert }

二维 **uint16s** 数组指定使用的 **PIO** 线表明发生优先蓝牙活动（传送或接收）

Bits 0 to 15 of "pio_mask" and "pio_invert" map to PIO0 to PIO15 respectively. A bit of "pio_mask" set to high enables driving of the corresponding PIO pin to indicate priority activity. A bit of "pio_invert" set to high indicates that the corresponding PIO pin is active low instead of active high.

"pio_mask" 和 "pio_invert"的 0 到 15 位分别指向 PIO0 到 PIO15。一位"pio_mask"设置为高使能表明相应的 PIO 引脚优先活动。一位"pio_invert"设置为高表明相应的 PIO 引脚为低电平有效，而非高电平。

Priority operations will typically include, but may not be limited to, the following:

优先的业务将主要包括以下内容，但可能不仅限于此：

- Inquiry, inquiry scanning and response **查询，查询扫描和响应**
- Page, page scanning and response **寻呼，寻呼扫描和响应**
- Master slave switch **主从切换**
- Park beacons and access windows **放置标识和访问 windows**
- Sniff instants **呼吸**
- Hold instants **等待**
- SCO slots **SCO 时隙**
- Broadcast **广播**

This PS key is primarily intended for use by IEEE 802.11b combo designs. The signalling is used to disable 802.11b transmissions that may otherwise degrade Bluetooth reliability.

这一键值主要为使用 IEEE 802.11b 而设计。信号传输用来使 IEEE 802.11b 无法传输，从而可能降低蓝牙的可靠性。

SUMMARY The PIO lines are driven in accordance with the following logic:

PIO 口驱动按照以下逻辑进行：

PIO = (PIO & ~pio_mask) | ((priority ? pio_mask : 0) ^ pio_invert)

Key Name	Key Number	Type	Default Setting
PSKEY_LC_COMBO_DOT11_CHANNEL_PIO_BASE	0x002a	uint16	none

Set the PIO pins used to obtain the channel number being used by a co-located IEEE 802.11b system. The value of this pskey is the number of the PIO line used for the least significant bit of the channel number. The next three PIO lines in sequence are used for the remaining bits of the channel number.

设置 PIO 引脚是为了获得被用于共置 IEEE 802.11b 系统频道数。这一键值的价值在于一些 PIO 引脚用于最低有效位的频道号码。在未来三年的 PIO 引脚序列用于其余位的频道号码。

When this pskey is not set, no PIO lines are used for this purpose.

当这个键值未被设定，将没有 PIO 引脚用于这一用途。

This pskey can also be set to the special value of 13 to indicate that channel usage information will be provided from an alternative source, e.g. via the HCI Set_AFH_Channel_Classification command.

这个键值也可以设置为特殊值 13 ，表明通道的使用信息将提供从其他来源，例如：通过人机交互 Set_AFH_Channel_Classification 命令。

Values above this are reserved for more esoteric or customer specific coexistence schemes.
高于该数值的值是留给更深奥或客户特定的共处计划。
The value on the PIO lines decodes to an 802.11b channel number (with centre frequency Fc) as follows:
PIO 引脚解码的 802.11b 的频道号码（与中心频率队）值如下：

Number Description
0000b 802.11b inactive
0001b 802.11b channel 1 (Fc = 2.412GHz)
0010b 802.11b channel 2 (Fc = 2.417GHz)
0011b 802.11b channel 3 (Fc = 2.422GHz)
0100b 802.11b channel 4 (Fc = 2.427GHz)
0101b 802.11b channel 5 (Fc = 2.432GHz)
0110b 802.11b channel 6 (Fc = 2.437GHz)
0111b 802.11b channel 7 (Fc = 2.442GHz)
1000b 802.11b channel 8 (Fc = 2.447GHz)
1001b 802.11b channel 9 (Fc = 2.452GHz)
1010b 802.11b channel 10 (Fc = 2.457GHz)
1011b 802.11b channel 11 (Fc = 2.462GHz)
1100b 802.11b channel 12 (Fc = 2.467GHz)
1101b 802.11b channel 13 (Fc = 2.472GHz)
1110b 802.11b channel 14 (Fc = 2.484GHz)
1111b Reserved (treated as 0000b)

This pskey is primarily intended for use by IEEE 802.11b combo designs. The signalling is used in combination with PSKEY_LC_COMBO_DOT11_BLOCK_CHANNELS to disable non-priority Bluetooth transmissions that may otherwise degrade 802.11b throughput.
这一键值主要是使用了 IEEE 802.11b 组合设计。信号是用来结合 PSKEY_LC_COMBO_DOT11_BLOCK_CHANNELS 禁用非优先蓝牙传输降解的 802.11b 吞吐量。

Key Name	Key Number	Type	Default Setting
PSKEY_LC_COMBO_DOT11_BLOCK_CHANNELS	0x002b	uint16	11

Set the number of Bluetooth channels to block on either side of an IEEE 802.11b channel centre frequency.
设置一些蓝牙通道以阻挡符合规则位置的 IEEE 802.11b 通道中央频率。
The default value of 11 results in 23 channels being blocked:
默认值 11 结果在 23 个通道被封锁：

Fc - 11, ..., Fc - 1, Fc, Fc + 1, ..., Fc + 11

This pskey is primarily intended for use by IEEE 802.11b combo designs. The signalling is used in combination with PSKEY_LC_COMBO_DOT11_CHANNEL_PIO_BASE to disable non-priority Bluetooth transmissions that may otherwise degrade 802.11b throughput.
这一键值主要是使用了 IEEE 802.11b 组合设计。信号是用来结合 PSKEY_LC_COMBO_DOT11_BLOCK_CHANNELS 禁用非优先蓝牙传输降解的 802.11b 吞吐量。

Key Name	Key Number	Type	Default Setting
PSKEY_LC_MAX_TX_POWER_NO_RSSI	0x002d	int8	4

This value is used after a connection is made if it is found that a remote device does not support RSSI measurements or power control. The transmit power is lowered to correspond to the first entry in PSKEY_LC_POWER_TABLE whose power in dBm is less than or equal to the value of this pskey.
这个值是用来在连接如果发现一个远程设备不支持接收信号强度指示测量或功率控制。发射功率降低，符合第一项 PSKEY_LC_POWER_TABLE 其在 dBm 的功率小于或等于的值这个键值 。

According to the Bluetooth radio specification, a device may only transmit to a peer which does not support RSSI or the related LMP messaging using the rules for a class 2 or class 3 device, in other words with a maximum transmit power of 4 dBm, hence the default value for this pskey. This allows the default transmit power to be raised above 4 dBm without violating the specification.
根据蓝牙规范，设备仅可以使用 CLASS2 或 CLASS3 规则传送到不支持 RSSI 或与 LMP 有关的信息的同类设备。

Key Name	Key Number	Type	Default Setting
PSKEY_LC_CONNECTION_RX_WINDOW	0x002e	uint16	10

The Bluetooth specification requires that a master or slave be sensitive to timing jitter of transmissions from the other side up to 10 microseconds while the two devices are connected. The value may be controlled by this pskey.
蓝牙规范要求当两个设备连接时主设备和从设备之间的调频传输时间为 10 微秒。这个值可能被这一键值约束。

Key Name	Key Number	Type	Default Setting
PSKEY_LC_COMBO_DOT11_TX_PROTECTION_MODE	0x0030	uint16	0

Provides an option to select some Bluetooth packets for protection. The intent is to improve SCO transmissions in a co-existence scheme.
提供了一种选项用于选择一些蓝牙数据包的保护。其目的是提高同步连接传输共存计划。

This key can take on three values: 0: All high Priority and TX packets are protected - standard setting 1: SCO TX packets are not protected but other priority TX packets are 2: No TX packets are protected.
这一键值主要包括三个部分：0：所有高优先级和 TX 包被保护-标准设置。1：SCO TX 包未被保护，但是其他重点 TX 包被保护。2：没有 TX 包被保护。
Although some packets are not protected this key does not affect whether they are transmitted or not.
虽然一些数据在这一键值里得不到保护，但这并不影响他们传送与否。

Key Name	Key Number	Type	Default Setting

PSKEY_LC_ENHANCED_POWER_TABLE	0x0031	enhanced_power_setting[]	{{ 4, 0, 0, 0}, {63, 0, 69, 0}, -24}, {{ 9, 0, 0, 0}, {63, 0, 71, 0}, -20}, {{15, 0, 0, 0}, {63, 0, 74, 0}, -16}, {{22, 0, 0, 0}, {63, 0, 77, 0}, -12}, {{30, 0, 0, 0}, {63, 0, 80, 0}, -8}, {{38, 0, 0, 0}, {63, 0, 85, 0}, -4}, {{46, 0, 0, 0}, {63, 0, 91, 0}, 0}, {{56, 0, 0, 0}, {63, 0, 105, 0}, 4}

This table is used in firmware which supports the Enhanced Data Rate specification. Any values set in PSKEY_LC_POWER_TABLE are ignored; the two tables are mutually exclusive.
本表中使用的固件支持的增强型数据速率规格。任何值设置在 **PSKEY_LC_POWER_TABLE** 被忽视;两个表是互斥的。

The chip has an internal power amplifier (PA); this has a gain control. Some module designs also have an external PA; this may have a gain control. Additional, the chip has a pre-amplifier (TX-PRE) which also has a gain control.
另外，该芯片具有一个内部功率放大器（ **PA** ） ;它具有增益控制。有些模块设计也有外部功率放大器;这可能有一个增益控制。另外，该芯片具有前置放大器（**TX-PRE**）也有增益控制。

The power table stored under this pskey provides a mapping between the three PAs' gain settings and the corresponding transmit power. This table is basis of all of the firmware's transmit power control: LMP dynamic power control, PSKEY_LC_MAX_TX_POWER, PSKEY_LC_DEFAULT_TX_POWER, etc.
存储在这一键值的功率表提供了功率放大器，增益设置和相应的发射频率之间的关系。此表依赖于所有的固件发射功率控制，**LMP** 动态功率控制 **PSKEY_LC_MAX_TX_POWER** ，**PSKEY_LC_DEFAULT_TX_POWER** 等。
Every module design must have an appropriate power table. The default value suits the CSR Casira hardware; this is not suitable for other module designs.
每个模块的设计必须有一个匹配的（适当的）功率表。该值适合于 **CSR Casira** 硬件而不适合于其他模块。
The pskey's value is an array of "power_setting" types. The array's length is not fixed; typically an array is between 1 and 10 elements long.
该键值是一系列的“ **power_setting** ”类型。数组的长度是不固定的;通常一个数组是介于 **1** 和 **10** 之间。

Each array element (of type "power_setting") holds seven bytes within five uint16s:
每个数组元素（类型为“ **power_setting** ” ）在 **5** 个 **16** 位无符号整数中保存 **7** 个字节。
The first and second word control basic data rate operation.
第一个和第二个字的基本数据速率控制操作。

1st uint16, lower byte: uint8 external_pa for basic rate

1st uint16, upper byte: uint8 internal_pa for basic rate

2nd uint16: bit 0 controls class 1 and class 2 operation

with a dynamically switchable external PA 动态转换外部功率放大器

(see below). Bits 4 to 6 control the tx_pa_attn **4** 到 **6** 位控制 **tx_pa_attn**

value used BC5 and later chips, and must be zero **BC5** 以及后来的芯片，值必须为 **0**

on chips earlier chips. Other bits must be zero. 较早的其他芯片，其余位的值必须为 **0**

The third and fourth words control enhanced data rate operation. Its form mirrors that of the first and second words.

第三和第四个字控制增强型数据速率运行。它反映了第一个和第二个字。

3rd uint16, lower byte: uint8 external_pa for enhanced rate

3rd uint16, upper byte: uint8 internal_pa for enhanced rate

On chips prior to BC5, this should be

fixed. Currently the value 63 is

recommended.在 **BC5** 以前的芯片这一值被推荐为固定的 **63.**

4th uint16, lower byte: bit 0 inhibits user of this power with **0** 位阻止这个数据增强能力

enhanced data rate (see below). Bits

4 to 6 control the tx_pa_attn value

used on chips which have a TX PA

attenuator, and should be zero

on chips which do not. Other bits must

be zero. **4** 到 **6** 位用于控制拥有 **TX PA** 衰减器的 **tx_pa_attn** 值控制，如果不拥有衰减器则为 **0**，其他位必须为 **0.**

4th uint16, upper byte: uint8 TX-PRE level for enhanced rate

Typically this is 64 greater than the

internal_pa for basic rate (upper byte

of first word). On BC5 and later chips

this value must be zero. 在 **BC5** 及其之后版本的芯片，这个值必须是 **0.**

The fifth word specifies the output power common to both data rates.

第五位指定输出功率共同的数据传输速率。

5th uint16, upper byte: int8 tx dBm

5th uint16, lower byte: set to zero.

If the bottom bit of the second word is set ('EXT PA' bit), operation with dynamically switchable external PA is assumed.

如果设置了底部第二字（‘**EXT TA**’位），将采取操作动态 **PA** 外部转换。

For any transmission with 'EXT PA' bit set, whether basic rate or enhanced data rate, class 1 logic will be assumed. The external PA will be used and the AUX_DAC will be set to the lower byte of the first word or the lower byte of the third word of the entry as appropriate. In addition, PSKEY_TRANSMIT_OFFSET_CLASS1 and PSKEY_TX_PRE_LVL_CLASS1 are used in place of PSKEY_TX_OFFSET_HALF_MHZ (or PSKEY_TRANSMIT_OFFSET) and PSKEY_TX_PRE_LVL.

对于任何传输**'EXP PA'**位设置，无论是基本速率或增强型数据速率， 将采取 **class1** 逻辑外部 **PA** 将用于和 **AUX_DAC** 被设置为低字节的第一个字或低字节第三字的适当输入。此外，**PSKEY_TRANSMIT_OFFSET_CLASS1** 和 **PSKEY_TX_PRE_LVL_CLASS1** 是用来代替 **PSKEY_TX_OFFSET_HALF_MHZ** （或 **PSKEY_TRANSMIT_OFFSET** ）和 **PSKEY_TX_PRE_LVL**。

If entries are present in the power table with the 'EXT PA' bit set, then class 2 operation is assumed for transmissions in which the 'EXT PA' bit is clear. PIO1 and the AUX_DAC will be pulled low during transmit. In addition, the PIO given by PSKEY_TX_AVOID_PA_CLASS1_PIO will be asserted to indicate such a transmission.

如果平均信息量出现在功率表的'EXT PA'位，那么将在'EXT PA'的空位采取 Class2 操作。PIO1 and the AUX_DAC 传送时将被拉低。此外，PSKEY_TX_AVOID_PA_CLASS1_PIO 的 PIO 口将表明这种传输。

When no entries in the power table have the `EXT PA' bit set, PSKEY_TX_AVOID_PA_CLASS1_PIO is not used and the settings given by other PS keys such as PSKEY_TXRX_PIO_CONTROL are applied directly.

当功率表中没有项对`EXT PA'位设置，PSKEY_TX_AVOID_PA_CLASS1_PIO 为被使用，同时，其他的键值设置，如 PSKEY_TXRX_PIO_CONTROL 将马上被应用。

For example, power_setting { 0x0d11, 0, 0x3f11, 0x4d00, 0xf800 } specifies:

举例，表设置为{ 0x0d11, 0, 0x3f11, 0x4d00, 0xf800 }

To get power output -8 dBm for basic data rate (1 Mbps) use
internal amp 13, external amp 17.

设置功率输出 8 dBm 为原始输出速率(1 Mbps)使用内部放大器 13，外部放大器 7。

To get power output -8 dBm, for enhanced data rate (2 or 3 Mbps) use
internal amp 63, external amp 17, TX-PRE amp 0x4d.

设置功率输出 8 dBm 为原始输出速率(2 or 3 Mbps)内部放大器 63，外部放大器 17，TX-PRE 放大 0x4d

A power table is a list of these entries. The entries must be in ascending order of transmit power.

If the table contains only one entry (five uint16s) then the firmware always uses these settings.

功率表列出了这些项目。项目必须是升序排列的发射功率。如果该表只包含一个项目那么固件始终使用这些设置。

The firmware responds to peer requests to increase/decrease transmit power by stepping up and down this table. The Bluetooth spec. constrains the sizes and number of steps, which in turn bounds the size and content of the power table.

固件相应对方请求，通过步进向上或向下此表以增加/减少发射频率。蓝牙规格，约束步幅的幅度和数据，即轮流限制功率表的大小和内容。

In EDR operation, if the bottom bit of the fourth word is set, the power is marked as unavailable for EDR transmissions. Depending on the setting of BCCMD Limit_EDR_Power, the chip will either change the packet type table to basic rate; or refuse peer power control requests which request it to exceed the maximum allowed EDR power. If PSKEY_LC_DEFAULT_TX_POWER is greater than the maximum allowed EDR power, BlueCore will refuse to enter use EDR until the peer requests it to decrement its power sufficiently, after which it will attempt to change the packet type table to use EDR.

在 EDR 运行过程中，如果第四字的底位被设置，则功率被标记为不可用的 EDR 的传输。依靠设置 BCCMD Limit_EDR_Power，芯片将或者改变数据类型表为基本速率，或者拒绝超过 EDR 功率允许的最大值的对等功率控制请求。如果 PSKEY_LC_DEFAULT_TX_POWER 的值大于 EDR 允许的最大值，蓝牙芯片将拒绝 ENR 进入，直到充分的消耗功率，然后它将尝试改变数据包以使用 EDR。

Note that, although this table is not used directly for the CSR-specific radiotest command set, two features of this table are used to determine transmitter behaviour in radiotest mode:

注意：虽然此表不是直接用于详细 CSR 芯片无线测试命令设置，但本表的两个特征将用于确定无线测试模式下传送者的行为。

- The first entry in the table is used to determine the fixed internal_pa setting for EDR operation. The internal_pa

value passed to the radiotest command in EDR mode (indicated by packet types of 16 or over) is used to control the TX-PRE level in the manner described above.

表中的第一项是用于确定固定 **internal_pa** 用于 **EDR** 操作设置。**internal_pa** 值将无线测试命令传递给 **EDR** 模型。（被 **16** 或 **16** 以上的类型包指示）用于控制 **TX-PRE** 水平在上述数据包类型。

- The presence of an entry with the `EXT PA' bit set is necessary before radiotest will use the class1 logic to transmit. However, in addition, the external_pa value passed to radiotest (the upper byte of the transmitter gain) must be non-zero for class 1 mode to be used.

在无线测试运用 **CLASS1** 级别传输之前，**`EXT PA'**的出现是必须的。不过，除此之外， **external_pa** 值传递给无限测试（发射机的增益高字节）必须被非零 **class1** 级别应用。

See PSKEY_TXRX_PIO_CONTROL to see how the chip's AUX_DAC pin controls an external PA.

见 **PSKEY_TXRX_PIO_CONTROL** 看芯片的 **AUX_DAC** 引脚控制外部功率放大器。

The current Casira design has a fixed-gain external PA; its AUX_DAC is not connected to the PA. The default power table thus always has external_pa set to zero.

目前 **Casira** 设计有一个固定增益外部功放，其 **AUX_DAC** 没有连接到 **PA.** 因此，默认功率表总是将 **external_pa** 设置为 **0.**

See PSKEY_LC_POWER_TABLE, PSKEY_LC_MAX_TX_POWER, PSKEY_LC_DEFAULT_TX_POWER, PSKEY_LOCAL_SUPPORTED_FEATURES, PSKEY_TXRX_PIO_CONTROL, PSKEY_TX_AVOID_PA_CLASS1_PIO, PSKEY_TRANSMIT_OFFSET_CLASS1, PSKEY_TX_PRE_LVL_CLASS1, PSKEY_TRANSMIT_OFFSET_HALF_MHZ, PSKEY_TRANSMIT_OFFSET, and PSKEY_TX_PRE_LVL

Key Name	Key Number	Type	Default Setting
PSKEY_LC_WIDEBAND_RSSI_CONFIG	0x0032	wideband_rssi_config	113, 98, 9, 50

Hardware from BlueCore3-Ext has a facility for wideband RSSI measurement. This key is used to configure the settings.

BlueCore3 硬件内置一个宽带的 **RSSI** 测量设施。这主要是用来配置设置。

It consists of four 16-bit words.

它由 **4** 个 **16** 位字组成。

The first word is the value of the wideband RSSI reading above which the RSSI high target should be reduced.

第一组为宽频 **RSSI** 显示高值，**RSSI** 高目标（对象）要低于这一数值。

The second word is the value of the wideband RSSI readinb below which the RSSI high target should be increased.

第二组为宽频 **RSSI** 显示低值，**RSSI** 高目标（对象）要高于这一数值。

THe third word is the step used when changing the RSSI high target.

第三组是用于改变 **RSSI** 高目标（对象）的步骤。

The fourth word is the minimum allowed value of the RSSI high target. The maximum value is PSKEY_RSSI_HI_TARGET, or PSKEY_LC_RSSI_GOLDEN_RANGE on builds without PSKEY_RSSI_HI_TARGET.

第四组是 **RSII** 高目标（对象）允许的最小值。

Key Name	Key Number	Type	Default Setting
PSKEY_LC_COMBO_DOT11_PRIORITY_LEAD	0x0033	uint16	50

This key is used only when we are using the Intel Phase 2 COEX scheme. This key defines the value for T_priority_lead which is the time between us raising the BT_Priority signal and the packet header beggining.

这一键值只在我们使用 **Intel Phase 2 COEX** 方案时才使用。这一键值规定了 **T_priority_lead** 的值，**T_priority_lead** 为我们提高 **BT_Priority** 信号和头数据包开始的时间。

This key might be removed on later builds once a good value has been found.

当一个较好值被发现的时候，这一键值可能被移动到后部结构。

Key Name	Key Number	Type	Default Setting
PSKEY_BT_CLOCK_INIT	0x0034	uint32	0UL

The value to which the Bluetooth clock will be initialised at boot. The value 0 is standard; the only likely reason to alter this is for debugging non-CSR devices known to encounter problems at certain clock values.

这一值蓝牙始终将被初始化。**0** 是标准值；唯一可能改变这一值只有在调试非 **CSR** 设备时某些时钟值遇到了问题。

(Historical note: before this key was introduced, CSR devices initialised their Bluetooth clocks from the lower 28 bits of the Bluetooth address, i.e. the lower 4 bits of the UAP followed by the LAP.)

（历史注释：在此之前这一键值是采用 **CSR** 公司的设备初始化从较低的蓝牙时钟的 **28** 位蓝牙地址，即低 **4** 位 **UAP** 跟随着 **LAP**。）

Key Name	Key Number	Type	Default Setting
PSKEY_LC_COMBO_DOT11_FREQ_PIO_MASK	0x0035	uint16	0

This key is used only when we are using some of the more advanced coexistence schemes. This key defines a PIO mask that shall be used to indicate when we are overlapping in frequency (between the Bluetooth device and the WLAN device).

这一键值只在我们使用一些更多超前共存设备时才会被使用。这一键值定义了一个用于指示频率重叠的 **PIO mask**（在蓝牙设备和无线局域网设备之间）。

Key Name	Key Number	Type	Default Setting
PSKEY_CONDITIONAL_SCAN_ENABLE	0x0036	bool	FALSE

If set TRUE (value 1), then the firmware will rapidly scan the Bluetooth band on the first slot pair of a page or inquiry scan, looking for any transmissions in the band. If it finds none, it will not listen for the remaining scan window. The intention is to save power when there are no other devices nearby.

如果设置为真（值为 **1**），那么硬件将迅速扫描第一时隙的蓝牙频带配对查询或寻呼扫描。寻找波段内的所

有传送，它将不关注余下的扫描窗口，目的是在周围没有其他设备时节省电能。

Key Name	Key Number	Type	Default Setting
PSKEY_CONDITIONAL_SCAN_THRESHOLD	0x0037	uint16	0x0e14

RSSI threshold for energy detection. The lowest byte is the narrow band RSSI threshold. This is in LSB for the ADC, not in mV. For pre-BC5 parts there is an upper byte and this is the number of LSB above baseline for the wide band RSSI.

阈值的 **RSSI** 能源检测。最低的字节是窄带 **RSSI** 阈值。这是在 **ADC** 的 **LSB**，而不是在 **MV**.在 **pre-BC5** 部件，有一个高字节，这是一个高于基础宽带 **RSSI** 的 **LSB** 数值。

Key Name	Key Number	Type	Default Setting
PSKEY_TX_MR_MOD_DELAY	0x0038	uint8	0x59

Trim timing for EDR transmit Mod delay for TX

整理 EDR 的 TX 发射模式延时时序。

Key Name	Key Number	Type	Default Setting
PSKEY_RX_MR_SYNC_TIMING	0x0039	uint16	0x463F

Trim timing for EDR sync

整理 EDR 同步时序。

Key Name	Key Number	Type	Default Setting
PSKEY_RX_MR_SYNC_CONFIG	0x003a	uint16	0x0024

Acceptable correlation quality of EDR

EDR 的满意关联品质。

Key Name	Key Number	Type	Default Setting
PSKEY_LC_LOST_SYNC_SLOTS	0x003b	uint16	0

In low power modes, a device will consider it has lost synchronisation with its peer if it fails to receive an expected transmission in one of the following circumstances:

在低功耗模式下，如果在以下条件之一的情况下未能接收到预期的传输，设备将认为它已经失去同步的对应设备。

- In sniff mode as a slave, during any sniff window when nothing is received.

从设备处于呼吸模式，当任何呼吸窗口都未接收到数据。

- In sniff mode as a master, during any sniff window when the slave has been sent a POLL or a data packet and no reply has been received.

主设备处于呼吸模式，当所有的从设备被主设备呼吸窗口发送一个 POLL 或数据包，但主设备未接到到回应。

- In park mode as a slave, when no transmission is received on any park beacon in a train.

从设备处于暂停状态，当所有暂停信号都没有接收到传送。

This key specifies a value in baseband slots (units of 625 us) which must elapse since the last packet received from the remote device before the logic described above applies.

这一键值指定了一个基带时隙的值，这一值在最后的数据包从远端设备被接收时必须消失.....

Key Name	Key Number	Type	Default Setting
PSKEY_RX_MR_SAMP_CONFIG	0x003c	uint16	0x0426

Acceptable correlation quality of EDR

合格的 **EDR** 相关特点。

Key Name	Key Number	Type	Default Setting
PSKEY_AGC_HYST_LEVELS	0x003d	agc_hyst_config	0x4, 0x1, 0xd, 0xa, 0xe, 0xb, 0xe, 0xb

BlueCore contains an automatic gain control algorithm which attempts to maintain a reasonable signal level by adding and removing various sources of attenuation. This key controls the signal strength at which these sources are added and removed. It should not be altered except on advice from CSR.

BlueCore 芯片包含一个自动增益控制算法，这一算法试图添加和删除衰减的不同来源以保持一个合理的信号水平。这一键值控制被增加或删减的信号来源的强度。除非 **CSR** 公司的一件，否则这个值不应被修改。

Key Name	Key Number	Type	Default Setting
PSKEY_RX_LEVEL_LOW_SIGNAL	0x003e	uint16	0xf

This key gives the value used for the ANA_RX_LVL register when the chip detects that the signal strength has fallen off. It should be greater than or equal to PSKEY_ANA_RX_LEVEL.

当芯片发现信号强度减弱时，这一键值用于显示 **ANA_RX_LVL** 的记录。这个值必须高于 **PSKEY_ANA_RX_LEVEL.**

Key Name	Key Number	Type	Default Setting
PSKEY_AGC_IQ_LVL_VALUES	0x003f	IQ_LVL_VAL[]	{0x20, 0}, {0x0e, 3} , {0x0c, 5}, {0x0a, 7}, {0x08, 11}, {0x06, 16}, {0x04, 23}

This key gives the values for the ANA_IQ_LVL register used by the AGC algorithmn on the receive side, and the corresponding attenuation values. The top byte in each word is the register value, the bottom byte is an equivalent attenuation. This key should not be altered except on specific advice from CSR.

这一键值提供了 **ANA_IQ_LVL** 的值，用于接收端的 **AGC** 运算法则，和相应的衰减值。每个字的首字节是记录值，尾字节为对应的衰减值。除非 **CSR** 公司的一件，否则这个值不应被修改。

Key Name	Key Number	Type	Default Setting
PSKEY_MR_FTRIM_OFFSET_12DB	0x0040	uint16	0x022

The offset applied to ANA_RX_FTRIM when using EDR and with the 12 dB IF attenuator is in.
当使用 EDR 和 12db IF 衰减器时用于 ANA_RX_FTRIM 补偿。

Key Name	Key Number	Type	Default Setting
PSKEY_MR_FTRIM_OFFSET_6DB	0x0041	uint16	0x011

The offset applied to ANA_RX_FTRIM when using EDR and with the 6 dB IF attenuator is in.
当使用 EDR 和 6db IF 衰减器时用于 ANA_RX_FTRIM 补偿。

Key Name	Key Number	Type	Default Setting
PSKEY_NO_CAL_ON_BOOT	0x0042	bool	FALSE

Setting this key to TRUE causes the LC not to calibrate the radio at boot time. This means that the radio will not work until the key is set to false and the chip is rebooted. This key is intend to allow the use of a bootmode (see "Understanding and Using Bootmodes", document bcore-an-019P, on the CSR support website) where the radio is disabled.
设置这一关键值为 TURE 会导致 LC 在启动时不校准无线传送信息。这意味着无线传输将无法工作，知道这一键值设置为 FALSE 并且芯片重新启动。这一键值的用意是允许启动模式（见理解和应用启动模式，CSR 技术支持 bcore-an-019P 文件。）无线传输丧失能力。
(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)
（bool 类型基本是一个 unit16 的值 0 和 1 映射到 FALSE 和 TRUE）

Key Name	Key Number	Type	Default Setting
PSKEY_RSSI_HI_TARGET	0x0043	uint8	80

This key controls a parameter used by BlueCore's automatic gain control (AGC) algorithm. It should not be changed except on advice from CSR.
这一键值用于控制蓝牙芯片自动增益控制（AGC）运算法则。除非 CSR 公司的一件，否则这个值不应被修改。

Key Name	Key Number	Type	Default Setting
PSKEY_PREFERRED_MIN_ATTENUATION	0x0044	uint8	4

See the description of PSKEY_LC_RSSI_GOLDEN_RANGE for 21.x builds.
见 21.x 构架的 PSKEY_LC_RSSI_GOLDEN_RANGE 描述

Key Name	Key Number	Type	Default Setting
PSKEY_LC_COMBO_DOT11_PRIORITY_OVERRIDE	0x0045	bool	FALSE

If this key is set to TRUE then all Bluetooth activity will be treated as high priority.
如果这一键值设置为 TURE,那么所有蓝牙活动力将被处理为高优先级。
See also PSKEY_LC_COMBO_PRIORITY_PIO_MASK.

Key Name	Key Number	Type	Default Setting

PSKEY_LC_MULTISLOT_HOLDOFF	0x0047	TIME	300 * MILLISECOND

The BT 1.2 specification recommends that in low power modes the master should use single slot packets to help the slave resynchronise. This would be at the sniff instant or at the end of a hold.

BT1.2 说明说建议：在低功耗模式主设备需使用单时隙数据包去帮助从设备同步。这需要在呼吸的开始或等待的结束时。

However, a too literal following of this rule can cause bandwidth problems with short sniff intervals as the master will use single slot packets frequently.

但是，完全逐字的遵照这一规则可能导致短呼吸间隔带宽问题，主设备将频繁的使用单时隙数据包。

Clearly, for really short sniff intervals, the slave should find it not signficantly harder to resynchronise than it does in active mode and in active mode multi-slot packet are encouraged.

显然，真正的短呼吸间隔，

So, a more lax interpretation, but still within the spirit of the spec, would be to use the single slot behaviour only when the sniff interval or hold period has been long enough that the slave might need some help resynchronising.

那么，一个仍旧符合规范，更宽松的解释：只有当呼吸间隔或等待时段足够长时才使用单时隙行为，从设备的重新同步化可能需要一些帮助。

This PS key holds a time indicating how long the master has to have not heard from the slave before it will start using single slot packets to help the slave resynchronise.

这一键值的持续时间表示在主设备开始使用单时隙包帮助从设备重新同步之前，主设备已经有多久主设备未从从设备处听到消息。

One way to calculate a good time is to know that in low power modes, the error between the master and slave's clock can grow at up to 500 ppm (since each device's clock is allowed to be upto 250 ppm from nominal). The slave is likely to get problems once it has to keep its correlator open for a full slot. A full slot is 625 us which means an maximum error between the two links of 312.5 us (as the sign of the error is also unknown). At 500 ppm it will take about 600 ms to reach this level. This suggests that the value of this key should be well below 600 ms.

一个计算良好时间的方法是知道在低功率模式下，主从时钟错误增长高达百万分之 500（每个设备时钟允许增长百分之 250） .一旦其相关器的完整时隙全部打开，从设备可能遇到问题。一个完整的时隙为 625us，这意味着两条链接间的最大错误为 312.5us（在错误信号未知的情况下）在百万分之 500，需时约 600 毫秒的时间达到这个水平。这表明，该项的值应大大低于 600 毫秒。

Key Name	Key Number	Type	Default Setting
PSKEY_LC_ENABLE_LATE_SAMPLE	0x004b	bool	TRUE

This key controls when the LC should sample if data is available for transmission. If enabled the LC samples as late as possible for data being available.

如果数据有效，这一键值控制当 LC 需要尝试时的传输。如果尽可能晚的开启 LC 尝试用于数据有效。

Key Name	Key Number	Type	Default Setting
PSKEY_LC_CLOCKS_CONFIG	0x004f	uint16	0

Miscellaneous configuration of hardware clocks for Bluetooth.

蓝牙硬件始终的多种形态。

This key should only be changed on advice from CSR.

这一键值只有在 **CSR** 的建议下才可以被修改。

Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_LC_COMBO_DOT11_ESCO_RTX_PRIORITY	0x0050	bool	FALSE

If this key is set to TRUE, the BlueCore's co-existence interface will treat eSCO retransmissions as being low priority. (Note the priority of the initial transmission of the eSCO data remains high).
如果这一键值设施为 TRUE,蓝牙的共存界面将以低优先级处理 eSCO 中断。（注意 eSCO 数据的初始传输优先仍然很高）

Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_EDR_SWITCH_MODE	0x0051	edr_switch_mode	HIGH_TO_LOW

The EDR_SWITCH_MODE will be used to describe the assertion method for the EDR_SWITCH_MODE_PIO and will be used to setup the driving method, Low To High or High To Low.
EDR_SWITCH_MODE 将被用于断定 EDR_SWITCH_MODE_PIO 的描述方法，同时将被用于设置操纵模式：低到高或者高到低。

Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_EDR_MODE_SWITCH_PIO	0x0052	uint16	none

This key will assert the PIO line specified, 0-15 if present, if the key is not present it will become a zero length key with an attempt to read it failing, this will fail the psget method and disable use of this key. If the pskey is defined but the value is 0xffff, out of bounds, then the key will not setup a pio line. The use of this pskey is intended to be the mode select line for an EDR power amp, the assertion method will be in PSKEY EDR_SWITCH_MODE,this will be either high to low or low to high.
这一键值将规定 PIO 线路，如果存在则为 0-15，如果键值不存在，它将变成一个试图读取错误的 0 字节键值，psget 模式将失败，并且使这一键值无法使用。如果键值被规定，但是该值为 0xffff，超出界限，那么该键值将不会设置一个 PIO 线路。这一 pskye 的作用是规定规定 EDR 功率放大器，断言方法将在 PSKEY EDR_SWITCH_MODE，或者高到低，或者低到高。
If a pio line is required for tx enablement then you should use the PSKEY_TXRX_PIO_CONTROL, pio pin 1 which asserts when we are transmitting.
如果一个 pio 线路对于 tx 使能是必须的，那么你需要使用当我们传输时用于断言的 PSKEY_TXRX_PIO_CONTROLpio 引脚 1。

Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_LC_ENABLE_WATCHDOG_FAULT	0x0053	bool	FALSE

This is a debugging option; CSR internal use only.
用于调试的键值，只在 CSR 内部使用。

Key Name	Key Number	Type	Default Setting
PSKEY_FREE_KEY_PIGEON_HOLE	0x00c9	uint16	0

A bitfield indicating which link keys are stored. A 1 in this mask indicates that the corresponding link key is occupied.
一个指示连接键值被储存的位单元。1 表示对应的链接键值被占用。
Freaky pigeon hole?

Key Name	Key Number	Type	Default Setting
PSKEY_LINK_KEY_BD_ADDR0	0x00ca	LM_LINK_KEY_BD_ADDR_T	none

A Bluetooth address and its corresponding link key. **一个蓝牙地址和其想对应的连接键值。**
1st uint16: top 8 bits of the LAP in the lower byte
2nd uint16: lower 16 bits of the LAP
3rd uint16: 16 bit UAP
4th uint16: 8 bit NAP in the lower byte Link key is 8 words, following the 4-word BDADDR. The link key is stored little-endian, so MSW is at position 11, LSW at position 4. Occupied keys should appear in PSKEY_FREE_KEY_PIGEON_HOLE
8 位 NAP 字节在低字节链接库是 8 个字。跟随 4 字 BDADDR.链接 key 被储存在 little-endian，那么 MSW 在 **11 位，LSW 在 4 位。被占用的 keys 应该在 PSKEY_FREE_KEY_PIGEON_HOLE** 出现。

Key Name	Key Number	Type	Default Setting
PSKEY_LINK_KEY_BD_ADDR1	0x00cb	LM_LINK_KEY_BD_ADDR_T	none

A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0
一个蓝牙地址和它想对应的连接 key。见 PSKEY_LINK_KEY_BD_ADDR0 描述。

Key Name	Key Number	Type	Default Setting
PSKEY_LINK_KEY_BD_ADDR2	0x00cc	LM_LINK_KEY_BD_ADDR_T	none

A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0
一个蓝牙地址和它想对应的连接 key。见 PSKEY_LINK_KEY_BD_ADDR0 描述。

Key Name	Key Number	Type	Default Setting
PSKEY_LINK_KEY_BD_ADDR3	0x00cd	LM_LINK_KEY_BD_ADDR_T	none

A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0

Key Name	Key Number	Type	Default Setting
PSKEY_LINK_KEY_BD_ADDR4	0x00ce	LM_LINK_KEY_BD_ADDR_T	none

A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_LINK_KEY_BD_ADDR5	0x00cf	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_LINK_KEY_BD_ADDR6	0x00d0	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_LINK_KEY_BD_ADDR7	0x00d1	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_LINK_KEY_BD_ADDR8	0x00d2	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_LINK_KEY_BD_ADDR9	0x00d3	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_LINK_KEY_BD_ADDR10	0x00d4	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_LINK_KEY_BD_ADDR11	0x00d5	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0			
Key Name	**Key Number**	**Type**	**Default Setting**

PSKEY_LINK_KEY_BD_ADDR12	0x00d6	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0			

Key Name	Key Number	Type	Default Setting
PSKEY_LINK_KEY_BD_ADDR13	0x00d7	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0			

Key Name	Key Number	Type	Default Setting
PSKEY_LINK_KEY_BD_ADDR14	0x00d8	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0			

Key Name	Key Number	Type	Default Setting
PSKEY_LINK_KEY_BD_ADDR15	0x00d9	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_LINK_KEY_BD_ADDR0			

Key Name	Key Number	Type	Default Setting
PSKEY_ENC_KEY_LMIN	0x00da	uint16	1

The minimum length of an encryption key in bytes. Range 1->16. A value of 1 implies a minimum encryption key length of 8 bits, etc.
在字节里一个密钥的最小长度，范围在 1 到 16，值为 1 意味着最小密钥长度为 8 字节。等等。
(BT specification 1.1, Section 14.3.1 p159: 1<=Lmax<=16. Section 14.3.3, p161, 3rd paragraph: max key size between one and sixteen. Section 14.3.5, p166: table does not contain key of length zero.)
蓝牙规范 1.1，159 页 14.3.1 章节，1<=Lmax<=16。161 页 14.3.3 章节，第三段最大键值设置在 1 到 16 之间。166 也 14.3.5 章：不包括 0 长度键值。
See PSKEY_ENC_KEY_LMAX.

Key Name	Key Number	Type	Default Setting
PSKEY_ENC_KEY_LMAX	0x00db	uint16	16

The maximum length of an encryption key in bytes.
在字节里一个密钥的最大长度。
Range 1->16. A value of 1 implies a maximum encryption key length of 8 bits, etc.
范围在 1 到 16，值为 1 意味着最小密钥长度为 8 字节。等等。
(BT specification 1.1, Section 14.3.1 p159: 1<=Lmax<=16. Section 14.3.3, p161, 3rd paragraph: max key size between one and sixteen. Section 14.3.5, p166: table does not contain key of length zero.)
蓝牙规范 1.1，159 页 14.3.1 章节，1<=Lmax<=16。161 页 14.3.3 章节，第三段：最大键值设置在 1 到 16 之间。166 也 14.3.5 章：不包括 0 长度键值。

UK Government restrictions require CSR to limit the maximum effective key length to less than 16 for some firmware builds.

UK 政府规定 CSR 在一些固件开发上，限定键值最大有效长度小于 16.

See PSKEY_ENC_KEY_LMIN.

Key Name	Key Number	Type	Default Setting
PSKEY_LOCAL_SUPPORTED_FEATRUES	0x00ef	uint16[]	0xffff, 0xFE8f, 0xF99B, 0x8000

A 4 element array of uint16s holding a bitfield that describes the features supported by the local device.

一个 unit16s 4 维数组存储一个地址，用于描述被附近设备支持的特征。

Coding matches the "coding of features" section in the LMP specification. The first byte of the coding of features is held in the lower byte of the first uint16, etc.

在 LMP 说明书编码匹配的“特征编码”章节指出：特征编码的第一字节保持在第一个 unit16 的低字节。

The key's default value gives the firmware's capabilities. Switching a bit from 0 to 1 does not magically create a missing capability.

这一键值的默认值给出了固件的功能。从 0 到 1 的转换不会奇迹般的丧失功能。

This key configures the local LM. If a feature is marked as provided by the default value, then clearing the key's bit turns off the corresponding functionality. For example, setting the Encryption bit to zero stops the local device supporting encryption.

这一键值设定局部 LM。如果一个显著的特点是以默认值为条件，那么清楚键值的位将关闭相对应的功能性。比如：设置加密位为 0，停止本地设备支持加密。

The three "flow control lag" bits should be left at zero.

第三位“流控制延迟”位需要设置为 0.

The order in 1.2 of the spec is as follows.

说明中的 1.2 举例如下：

First word, low to high (X => turned on in default config; (X) => turned on if supported by hardware;)

第一字，低到高（X =>打开忽略的配置；(X) =>如果硬件支持则打开。）

On Bit Feature

X 0 3-slot packets **3** 时隙包

X 1 5-slot packets **5** 时隙包

X 2 Encryption 加密

X 3 Slot offset 时隙补偿

X 4 Timing accuracy 精确时间

X 5 Master/slave switch 主从转换

X 6 Hold mode 保持模式

X 7 Sniff mode 呼吸模式

X 8 Park mode 暂停模式

X 9 Power control requests 功率控制请求

X 10 Data rate driven by channel quality 数据率的信道特征驱动

X 11 SCO link SCO 连接

X 12 HV2 packets **HV2** 包

X 13 HV3 packets **HV3** 包

X 14 mu-law voice encoding **mu-law** 噪声编码
X 15 A-law voice encoding
Second word
X 0 CVSD
X 1 Paging scheme
X 2 Power control 功率控制
X 3 Transparent SCO data **SCO** 透明数据
4 }
5 } L2CAP flow control lag (our default = 0) **L2CAP** 流延时
6 }
[1.2 features from this point]
X 7 Broadcast encryption 传播密码
8 Reserved (Scatter mode)
(X) 9 Enhanced Data Rate ACL 2 Mbps mode
(X) 10 Enhanced Data Rate ACL 3 Mbps mode
X 11 Enhanced inquiry scan 增强查询扫描
X 12 Interlaced inquiry scan 交错查询扫描
X 13 Interlaced page scan 交错暂停扫描
X 14 RSSI with inquiry results RSSI 查询结果
(X) 15 Extended SCO link --- EV3 packets 扩展 **SCO** 连接**---EV3** 包
Third word
(X) 0 Extended SCO link --- EV4 packets
(X) 1 Extended SCO link --- EV5 packets
2 Reserved (Absence masks)
X 3 AFH capable slave **AFH** 有能力的从设备
X 4 AFH classification slave **AFH** 分类从设备
5 Reserved (Alias authentication) 预留
6 Reserved (Anonymity mode) 预留
(X) 7 3-slot Enhanced Data Rate ACL packets **3** 时隙增强数据率 **ACL** 包
(X) 8 5-slot Enhanced Data Rate ACL packets **5** 时隙增强数据率 **ACL** 包
9 Reserved (Sniff sub-rating) 预留
10 Reserved (EPR (encryption pause/resume)) 预留
X 11 AFH capable master **AFH** 有能力的主设备
X 12 AFH classification master **AFH** 分类主设备
(X) 13 Enhanced Data Rate eSCO 2 Mbps mode ESCO2Mbps 模式增强数据率
(X) 14 Enhanced Data Rate eSCO 3 Mbps mode ESCO3Mbps 模式增强数据率
(X) 15 3-slot Enhanced Data Rate eSCO packets **3** 时隙增强数据率 **ESCO** 包
Fourth word
0 Reserved (Extended inquiry response)
X 15 Extended features [i.e. highest bit in feature mask]

Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_LM_USE_UNIT_KEY	0x00f0	bool	FALSE

Combination or unit keys can be used for authentication depending on devices' storage capacity. This key is set to TRUE if unit keys are to be used by default instead of combination keys.
键组或单元键值可被用来依赖于设备存储容量的鉴定。如果单元键值未被组合键值代替，那么这一键值设置为 TRUE.
(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)
该类型值基于 unit16，值 0 和 1 分别映射 FALSE 和 TRUE.

Key Name	Key Number	Type	Default Setting
PSKEY_HCI_NOP_DISABLE	0x00f2	bool	FALSE

By default the BlueCore firmware sends an HCI command_status(NOP) event to the host shortly after booting. Although this is clearly allowed by the HCI specification it is known to crash some host stacks.
默认情况下，在主机启动后不久，蓝牙核心固件将发送一个人机交互 command_status（NOP）事件到主机。虽然很明显被 HCI 说明说所允许， 碰撞一些主机堆栈为人所熟知。
This pskey provides a simple workaround: if this key is TRUE then this boot-time event is not emitted.
这一键值提供了一个简单的工作区：如果这一键值为 TRUE,那么启动时间事件则不被发出。
(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_LM_MAX_EVENT_FILTERS	0x00f4	uint8	5

Each time an event filter is added, it consumes valuable RAM resources. To limit the maximum amount of RAM event filters can take we limit the maximum number of event filters.
每次一个事件过滤被添加，它都消耗 RAM 价值资源。 限定 RAM 时间过滤器的最大值可以使我们限定事件过滤器的最大数量。

Key Name	Key Number	Type	Default Setting
PSKEY_LM_TEST_SEND_ACCEPTED_TWICE	0x00f6	bool	FALSE

The Bluetooth 1.1 specification does not ensure reliability of LMP traffic in test mode, since it does not differentiate test packets (which are unreliable) from LMP packets at the baseband level. This can lead to loss of LMP messages.
在蓝牙 1.1 规范的测试模式，并未确保 LMP 传输的可靠性。因为它没有区分基带层 LMP 包的测试包（哪些是不可靠的）。这回导致 LMP 信息的丢失。
If this key is set to TRUE, a slave in test mode will send the LMP_Accepted reply to a test control message twice. This increases the likelihood that the message will be received by the tester. (It does not guarantee it because, since the link manager does not operate in real time, there may be test messages in between the transmissions.)
如果这一键值设置为 TRUE,一个再测试模式的从设备将发送 LMP_Accepted 信息到测试控制两次。这增大了信息被测试者接收到的可能性。（这并不被保证，当连接者并未实时运转，传送中或许会有测试信息。）
(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_LM_MAX_PAGE_HOLD_TIME	0x00f7	uint16	0

Each time a unit pages a new device and it currently has active links, they are held for page timeout slots. If page timeout slots is greater than this value, this value is used a the maximum hold time. A value of zero indicates that holding around page is disabled.

每次一个单位寻呼一个新的设备，并且当前它有有效连接，它们保持寻呼超时时隙。如果寻呼超时大于这一值，这一值将被用于最大保持时间。0 代表混胡周围的等待失效。

Key Name	Key Number	Type	Default Setting
PSKEY_AFH_ADAPTATION_RESPONSE_TIME	0x00f8	uint16	0x12c0

This sets the interval between successive channel classification updates (and hence channel map adaptations) for an AFH enabled master. The period is measured in baseband slots (625us), and can be set between 1 and 30 seonds.

设置一个 AFH 激活主设备连续信道分类更新时间间隔（适应通道映射表）。时间用于衡量基带时隙，可被设置为 1 到 30 秒。

The slave classification intervals sent in the LMP_channel_classfication_req message are derived from this value:

被发送的 LMP_channel_classfication_req 分类间隔信息的值源于一下值：

AFH_max_interval = this_value

AFH_min_interval = this_value / 2

This is not supported on 4Mbit builds. This is not supported on 17.x or earlier builds.

这不支持 4Mbit 构架。这不支持 17.X 及其早期的构架。

Key Name	Key Number	Type	Default Setting
PSKEY_AFH_OPTIONS	0x00f9	uint16	0x0017

This allows AFH to be configured how the user requires. The bits are designated as below and are not restricted to classification. bit 0 enable RSSI classification bit 1 enable PLR classification bit 2 enable use of combo information in classification bit 3 <reserved> bit 4 enable hysterisis of the classifications from slaves bit 5 disable RSSI classification with low power links bit 6 enable extended RSSI classification with low power links,

这允许 AFH 被设定为使用者的要求。位指定为低并且不被限制的用于分类。0 位使 RSSI 分类，1 位使 PLR 分类，2 位使能使用分类综合报告，3 位（保留的），4 位使能 hysterisis 从设备分类，5 位使低功率连接状态下 RSSI 分类失效，6 位使 RSSI 分类在地功率链接状态下扩展。

this enables the time period for RSSI classification to be PSKEY_AFH_RSSI_LP_RUN_PERIOD.

这使能 RSSI 时间循环。

This is not supported on 4Mbit 18.x builds. This is not supported on 17.x or earlier builds.

这不被建议使用在 4Mbit 18.x 结构，也不被建议使用在 17.x 及其早期的就够。

RSSI - BlueCore makes signal strength measurements of channels not being used by the Bluetooth link when the radio would otherwise be idle. This inevitably increases the power consumption. However, it has the advantage that it makes Bluetooth a good neighbour; it identifies and avoids other users of the ISM band even if they are not causing problems for Bluetooth operation.

当蓝牙传输被闲置，RSSI 蓝牙芯片使信道的信号强度测量不被蓝牙连接所使用。这不可避免的增加了消耗，

但是，它的优势在于它给蓝牙一个好的临近设备，它鉴别和消除其他 **ISM** 带宽使用者，即使它们不影响蓝牙的正常运转。

PLR - Dropped packets and bit error rates for FEC encoded headers and payloads are used to estimate the interference for each of the channels being used. This gives priority to channels that are degrading the Bluetooth performance. As mentioned above, it will not identify other users of the ISM band unless they are corrupting Bluetooth packets, and it will not rapidly detect the removal of an interferer on a channel being avoided.

PLR – Dropped 包和 **FEC** 的比特误差鉴定译码标头和有效载荷被用于判断每个被使用的信道的干扰。它优先判断失去蓝牙性能的通道。如上所述，除非破坏蓝牙包，它将不会识别其它 **ISM** 信道的信息。同时它将不会迅速的切断一个信道的干涉。

To use AFH functionality to avoid interference, at least one device in the link must include a classifier.

运用 **AFH** 功能消除干涉，连接中的至少一个设备必须拥有一个分类器。

Key Name	Key Number	Type	Default Setting
PSKEY_AFH_RSSI_RUN_PERIOD	0x00fa	uint16	500

This is the period at which point the LC will schedule a RSSI classification, that is, if slots are available the radio is used as a spectrum analyser to read rssi on all channels or as many as it has time for. These values are averaged and decay slowly. The value of this key is in unit of ms.

这一节 **LC** 将确定一个 **RSSI** 分类时间，就是说，如果时隙可利用的无线传输被用于一个频谱分析去读取所有信道的 **RSSI** 或尽可能多的时间。这些值被平均并且缓慢衰减。这一键值的单位是 **ms**。

This is not supported on 4Mbit builds. This is not supported on 17.x or earlier builds.

这不被建议使用在 **4Mbit 18.x** 结构，也不被建议使用在 **17.x** 及其早期的就够。

Key Name	Key Number	Type	Default Setting
PSKEY_AFH_REENABLE_CHANNEL_TIME	0x00fb	uint16	0x0FA0

This key determins the amount of time it takes for a channel that was marked as bad to be marked as good again (when we have no further information about that channel). The time will be approximately Key * 40 milliseconds. The process of adding bad channels back into the channel map is deliberately randomized, so this time might vary.

这一键值 **key determins** 时间的数量，它使一个被标记为坏的信道再次标记为好的（当我们没有那个信道的补充资料时）。时间大约为 **KEY*40** 毫秒。将坏的信道增加到信道映射表的过程是故意的打乱，所以这一时间可以改变。

NB. If we have RSSI classification enabled a channel might be makred as good sooner if this algorithm thinks that the channel is good.

如果我们有 **RSSI** 分类激活一个信道，如果运算法则认为信道是好的，可能 **be makred as good sooner**

The value of this key is in units of 40 ms.

该键值的单位为 **40ms**。

This is not supported on 4Mbit builds. This is not supported on 17.x or earlier builds.

这不被建议使用在 **4Mbit 18.x** 结构，也不被建议使用在 **17.x** 及其早期的就够。

Key Name	Key Number	Type	Default Setting

PSKEY_NO_DROP_ON_ACR_MS_FAIL	0x00fc	bool	TRUE

If the Role parameter to the HCI Accept_Connection_Request (acr) command is 0x00 it requires the local device to become master of the link. This involves requesting the existing (paging) master to perform a role switch, and only completing the connection if the switch is performed. The link is dropped if the request to perform a role switch is refused. The HCI Set_Event_Filter command can be configured to achieve the same behaviour without involving the host via Connection_Request.

如果 HCIAccept_Connection_Reques 命令参数为 0x00，它命令本地设备成为连接的主设备。这包括让现有的主设备实现角色转换，并且当转换完成时只完成连接。如果角色转换被拒绝则连接放弃。HCI Set_Event_Filter 命令可以被设置完成同样的功能不包括主机通过链接请求。

If this peksy is set to TRUE this behaviour is altered: if the Role parameter is 0x00 then it is treated as advice - the local device requests the paging master to perform a role switch, but the link is not dropped if this is refused. The behaviour of the event filter is similarly adjusted. No attempt is made to hide a failure to switch. For example, no Role_Change event is sent to the host.

如果这一键值设置为 TRUE 这个行为将被改变：如果角色参数是 0x00，那么它处理请求-本地设备请求调整主设备完成转换。当如果这被拒绝，链接并不断开。事件的行为同样是被调整过的。没有掩饰转换失败的尝试。比如，没有 Role_Change 被发送到主设备。

This pskey has been added to attempt to ameliorate situations where both devices insist on being master. However, it changes the behaviour of HCI, so there is no guarantee that a given host stack will behave correctly. Users must determine correct system operation for themselves.

这一键值已经增加尝试改进双方设备都坚决作为主设备的情形。但是，它改变了 HCI 的行为，所以不保证主设备堆栈运转正常。使用者必须自己确定他们的正确的操作系统。

If this pskey is FALSE, the firmware provides the normal HCI behaviour.

如果这一键值是 FALSE，硬件提供常规的 HCI 行为。

(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_MAX_PRIVATE_KEYS	0x00fd	uint8	2

As we do not know how many devices we wish to be able to use at legacy boot time, we allow the number of private keys we use in legacy mode to be configurable. Setting this to zero will prevent any private link key storage.

如同我们不知道多少设备我们希望被用于 legacy 启动时间，我们允许运用在 legacy 模式的密钥可配置。设置为 0 可以放置密钥连接键值储存。

Key Name	Key Number	Type	Default Setting
PSKEY_PRIVATE_LINK_KEY_BD_ADDR0	0x00fe	LM_LINK_KEY_BD_ADDR_T	none

A Bluetooth address and its corresponding link key. 一个蓝牙地址和它相应的连接键值。

1st uint16: top 8 bits of the LAP in the lower byte 低字节 LAP 高 8 位

2nd uint16: lower 16 bits of the LAP LAP 低 16 位

3rd uint16: 16 bit UAP 16 位 UAP

4th uint16: 8 bit NAP in the lower byte Link key is 8 words, following the 4-word BDADDR. The link key is stored little-endian, so MSW is at position 11, LSW at position 4.

低字节连接键值的 8 位 NAP 是 8 个字，MSW 在 11 位置，LSW 在 4 位置。			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_PRIVATE_LINK_KEY_BD_ADDR1	0x00ff	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_PRIVATE_LINK_KEY_BD_ADDR0 一个蓝牙地址和它相应的连接键。见 **PSKEY_PRIVATE_LINK_KEY_BD_ADDR0** 描述。			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_PRIVATE_LINK_KEY_BD_ADDR2	0x0100	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_PRIVATE_LINK_KEY_BD_ADDR0			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_PRIVATE_LINK_KEY_BD_ADDR3	0x0101	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_PRIVATE_LINK_KEY_BD_ADDR0			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_PRIVATE_LINK_KEY_BD_ADDR4	0x0102	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_PRIVATE_LINK_KEY_BD_ADDR0			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_PRIVATE_LINK_KEY_BD_ADDR5	0x0103	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_PRIVATE_LINK_KEY_BD_ADDR0			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_PRIVATE_LINK_KEY_BD_ADDR6	0x0104	LM_LINK_KEY_BD_ADDR_T	none
A Bluetooth address and its corresponding link key. See description for PSKEY_PRIVATE_LINK_KEY_BD_ADDR0			
Key Name	**Key**	**Type**	**Default Setting**

	Number		
PSKEY_PRIVATE_LINK_KEY_BD_ADDR7	0x0105	LM_LINK_KEY_BD_ADDR_T	none

A Bluetooth address and its corresponding link key. See description for PSKEY_PRIVATE_LINK_KEY_BD_ADDR0

Key Name	Key Number	Type	Default Setting
PSKEY_LOCAL_SUPPORTED_COMMANDS	0x0106	uint16[]	0xffff, 0x03ff, 0xfffe, 0xffff, 0xffff, 0xffff, 0x0ff3, 0xffe8, 0x003f

This is a large bitfield that describes which HCI commands are supported by the host controller. The Host can find this information out itself by trying the command, the Host Controller will then return with "Unkown HCI Command", but some Host's might prefer to try this command first.

这是一个大的位区域用来描述被主控制器支持的 HCI 命令。主机会发现这已经超出了自身的尝试命令，主控制器将随即返回“未知的 HCI 命令”，但是有些主机更愿意先尝试运行这一命令。

The result returned by this command does not change after the Host Controller has booted. Sometimes it is not possible for the Host Controller to perform some operations (eg. insufficent resources or not having a link of the correct type). This command will still imply that the commands are available; if the Host tries such a command the Host Controller should return a different status message than "Unkown HCI Command".

在主控制器启动之后这一命令返回的结果并未改变。有时它不可能为主控制器完成一些操作（比如，足够的资源或没有一个正确类型的连接）。这个命令仍然意味着命令是有价值的；如果主机尝试一个命令主控制器将返回一个与"Unkown HCI Command"不同的值。

byte 0

0 Inquiry 查询

1 Inquiry Cancel 取消查询

2 Periodic Inquiry Mode 周期查询模式

3 Exit Periodic Inquiry Mode 退出周期查询模式

4 Create Connection 创造连接

5 Disconnect 拆分

6 Add SCO Connection 增加 SCO 连接

7 Cancel Create Connection 取消创造连接

byte 1

0 Accept Connection Request 接收连接请求

1 Reject Connection Request 拒绝连接请求

2 Link Key Request Reply 连接字请求回复

3 Link Key Request Negative Reply 连接字请求拒绝回复

4 PIN Code Request Reply PIN 码请求回复

5 PIN Code Request Negative Reply PIN 码请求拒绝回复

6 Change Connection Packet Type 改变连接包类型

7 Authentication Request 验证请求

byte 2

0 Set Connection Encryption 设置连接密码

1 Change Connection Link Key 改变连接 **Link Key**

2 Master Link Key 主设备 **Link Key**

3 Remote Name Request 远端命名请求

4 Cancel Remote Name Request 取消远端命名请求

5 Read Remote Supported Features 读取远端支持特征

6 Read Remote Extended Features 读取远端扩展特征

7 Read Remote Version Information 读取远端翻译信息

byte 3

0 Read Clock Offset 读取时钟偏移量

1 Read LMP Handle 读取 **LMP** 操作

2 <reserved> Exchange Fixed Info 预留，交换固定信息

3 <reserved> Exchange Alias Info 预留，交换化名信息

4 <reserved> Private Pairing Request Reply 预留，私有配对请求答复

5 <reserved> Private Pairing Request Negative Reply 预留，私有配对请求拒绝答复

6 <reserved> Generated Alias 预留，产生化名

7 <reserved> Alias Address Request Reply 预留，化名地址请求答复

byte 4

0 <reserved> Alias Address Request Negative Reply 预留，别名地址请求拒绝回复

1 Hold Mode 保持模式

2 Sniff Mode 呼吸模式

3 Exit Sniff Mode 退出呼吸模式

4 Park Mode 暂停模式

5 Exit Park Mode 退出暂停模式

6 QoS Setup **QOS** 安装

7 Role Discovery 任务发现

byte 5

0 Switch Role 转换任务

1 Read Link Policy Settings 读连接方法设置

2 Write Link Policy Settings 写连接方法设置

3 Read Default Link Policy Settings 读默认连接方法设置

4 Write Default Link Policy Settings 写默认连接方法设置

5 Flow Specification 流描述

6 Set Event Mark 设置活动标记

7 Reset 复位

byte 6

0 Set Event Filter 设置时间过滤

1 Flush 溢出

2 Read PIN Type 读 **PIN** 类型

3 Write PIN Type 写 **PIN** 类型

4 Create New Unit Key 创造新的单位关键字

5 Read Stored Link Key 读存储连接关键字

6 Write Stored Link Key 写存储连接关键字

7 Delete Stored Link Key 删除存储连接关键字

byte 7

0 Write Local Name 写本地名称

1 Read Local Name 读本地名称

2 Read Connection Accept Timeout 读连接接受超时

3 Write Connection Accept Timeout 写连接接收超时

4 Read Page Timeout 读寻呼超时

5 Write Page Timeout 写寻呼超时

6 Read Scan Enable 读扫描使能

7 Write Scan Enable 写扫描使能

byte 8

0 Read Page Scan Activity 读寻呼扫描活动性

1 Write Page Scan Activity 写寻呼扫描活动性

2 Read Inquiry Scan Activity 读查询扫描活动性

3 Write Inquiry Scan Activity 写查询扫描活动性

4 Read Authentication Enable 读鉴定使能

5 Write Authentication Enable 写鉴定使能

6 Read Encryption Mode 读加密方式

7 Write Encryption Mode 写加密方式

byte 9

0 Read Class Of Device 读设备等级

1 Write Class Of Device 写设备等级

2 Read Voice Setting 读声音设置

3 Write Voice Setting 写声音设置

4 Read Automatic Flush Timeout 读自动溢出超时

5 Write Automatic Flush Timeout 写自动溢出超时

6 Read Num Broadcast Retransmissions 读 **NUM** 传送中继

7 Write Num Broadcast Retransmissions 写 **NUM** 传送中继

byte 10

0 Read Hold Mode Activity 读保持模式活动性

1 Write Hold Mode Activity 写保持模式活动性

2 Read Transmit Power Level 读传输能力水平

3 Read SCO Flow Control Enable 读 **SCO** 流控制使能

4 Write SCO Flow Control Enable 写 **SCO** 流控制使能

5 Set Host Controller To Host Flow Control 设置主控制器到主机流控制

6 Host Buffer Size 主机缓冲期尺寸

7 Host Number Of Completed Packets 主机大量完整数据包

byte 11

0 Read Link Supervision Timeout 读连接管理超时

1 Write Link Supervision Timeout 写连接管理超时

2 Read Number of Supported IAC 读大量支持的 **IAC**

3 Read Current IAC LAP 读电流 **IAC LAP**

4 Write Current IAC LAP 写电流 **IAC LAP**

5 Read Page Scan Period Mode 读寻呼扫描周期模式

6 Write Page Scan Period Mode 写寻呼扫描周期模式

7 Read Page Scan Mode 读寻呼扫描模式

byte 12

0 Write Page Scan Mode 写寻呼扫描模式

1 Set AFH Channel Classification 设置 **AFH** 信道分类

2 <reserved> (Read Extended Data Mode) 预留，读延伸数据模式

3 <reserved> (Write Extended Data Mode) 预留，写延伸数据模式

4 Read Inquiry Scan Type 读查询扫描类型

5 Write Inquiry Scan Type 写查询扫描类型

6 Read Inquiry Mode 读查询模式

7 Write Inquiry Mode 写查询模式

byte 13

0 Read Page Scan Type 读寻呼扫描类型

1 Write Page Scan Type 写寻呼扫描类型

2 Read Channel Classification Mode 读信道分类模式

3 Write Channel Classification Mode 写信道分类模式

4 <reserved> Read Anonymity Mode 预留，读匿名模式

5 <reserved> Write Anonymity Mode 预留，写匿名模式

6 <reserved> Read Alias Authentication Enable 预留，读化名鉴定使能

7 <reserved> Write Alias Authentication Enable 预留，写化名鉴定使能

byte 14

0 <reserved> Read Anonymous Address Change Parameters 预留，读匿名地址改变参数

1 <reserved> Write Anonymous Address Change Parameters 预留，写匿名地址改变参数

2 <reserved> Reset Fixed Address Attempts Counter 预留，复位固定地址尝试计算

3 Read Local Version Information 读本地翻译信息

4 <reserved> Read Local Supported Commands 预留，读本地支持命令

5 Read Local Supported Features 读本地支持特征

6 Read Local Extended Features 读本地延伸特征

7 Read Buffer Size 读缓冲尺寸

byte 15

0 Read Country Code 读国家代码

1 Read BD ADDR

2 Read Failed Contact Count 读失败的连接数

3 Reset Failed Contact Count 复位失败的连接数

4 Get Link Quality 获得连接质量

5 Read RSSI 读 **RSSI**

6 Read AFH Channel Map 读 **AFH** 信道映射表

7 Read BD Clock 读 **BD** 时钟

byte 16

0 Read Loopback Mode 读 **Loopback** 模式

1 Write Loopback Mode 写 **Loopback** 模式

2 Enable Device Under Test Mode 使能在测试模式下设计

3 Setup Synchronous Connection 安装同步连接

4 Accept Synchronous Connection 接收同步连接

5 Reject Synchronous Connection 拒绝同步连接

Key Name	Key Number	Type	Default Setting
PSKEY_LM_MAX_ABSENCE_INDEX	0x0107	uint8	1

This describes the maximum absence index that the firmware will use when assigning absence masks. This is the index number so setting this to 0 gives a maximum number of absences as 1. The spec dictates that the minimum allowed is 1 absence hence setting this value to zero gives us the legal minimum the spec allows.

这描述了分配缺省掩膜时硬件将用的最大缺省指针。这是指针数量，所以设置这个值为 0 将使最大缺省值为 1.说明中命令最小被设置的缺省值是 1，因此设置这个值为 0 将是说明允许的最小值。

Key Name	Key Number	Type	Default Setting
PSKEY_DEVICE_NAME	0x0108	uint16[]	0x5343, 0x2052, 0x202d, 0x6362, 0x0034

The local device's default "user friendly" name, used by the HCI Read_Local_Name and Change_Local_Name commands and by LMP_name_req/LMP_name_res transactions.

本地设备默认“友好使用者”名称，被 HCI Read_Local_Name 和 Change_Local_Name 命令所使用。

When the firmware is booted, the device's name is taken from this pskey. However, if the local host alters the local device's name, by calling the HCI Change_Local_Name command, then the new name is held in RAM. Subsequent requests to read the device's name take from the RAM store, not from this pskey. The pskey's value only becomes visble again after the firmware reboots.

当硬件被启动， 设备名称将被这一键值携带。但是，如果当地主机通过调用 HCI Change_Local_Name 命令改变当地设备的名称，那么新的名字保持在 RAM 中，同时请求读取 RAM 所携带的设备名称，而并不是从这一键值中读取。这一键值的值只有在硬件重新启动后才变得有价值。

The BT 1.1 HCI specification requires the device's default name to be ""; an empty string. The default (psrom) value of this pskey is "CSR - bc3", or something similar, thus the psrom value does not meet the HCI specification. If this pskey is set to hold nothing, i.e., no uint16s are stored under the pskey, then the HCI default value is obtained.

BT 1.1 HCI 规范规定设备默认的名称是“”；一个空的字符串。这一键值的默认值为"CSR - bc3"或者类似的其它一些，所以这一值未在 HCI 规范中出现。如果这一键值被设置为保持没有的状态， 也就是说没有数据储存在键值之下，那么将得到 HCI 的默认值。

Over HCI and LMP the name is passed as a sequence of UTF-8 octets. Because the ps stores data in arrays of uint16s, the name is packed in this pskey, two octets per uint16. This packing is important when the ps store is small, notably where the ps is held in EEPROM.

在 HCI 和 LMP 之上，名称按照 8 位数组被传递，因为 PS 存储数据为批量的 unit16s，名称占满了这个键值，每个 uint16 2 个 8 位数组。当 PS 存储量小时这个包是很重要的，当 ps 保持在 EEPROM。

Working from start of the device's name, the first character is stored in the lower octet of the pskey's first uint16, the second character in the upper octet of the first uint16, etc. If the name is an odd number of characters then the upper octet of the last uint16 is '\0'.

从设备名称的起点开始，第一个写入的是在 pskey 的 unit16 存储低 8 位数组，第二个写入高 8 位数组，等等。如果名字是奇数写入，那么 unit16 最后的 8 位数组为‘\0’。

This pskey can hold a maximum of 20 uint16s, limiting the default device name to 40 octets. The behaviour is undefined in this pskey holds more than 20 uint16s. (This size constraint does not apply to a name written via the HCI Change_Local_Name command.)

这个键值的最大值为 **20 unit16**，限制默认设备的名称为 **40** 个 **8** 位数组。如果超过 **20** 个 **unit16**，那么设备的行为是不明确的。（尺寸约束不应用于被 **HCI Change_Local_Name** 命令写入的名称。）

The default name for BlueCore3 chips is "CSR - bc3"; when packed this becomes {0x5343, 0x2052, 0x202d, 0x6362, 0x0033}.

BlueCore3 芯片默认的名称是**"CSR - bc3"**。转换成为**{0x5343, 0x2052, 0x202d, 0x6362, 0x0033}.**

This pskey is used from (HCI) 18.X builds. HCI 17.X and earlier builds use PSKEY_LOCAL_NAME0 -> PSKEY_LOCAL_NAME17 and PSKEY_LOCAL_NAME_LENGTH.

这个键值被用于（**HCI**）**18.x** 构造。**HCI17.x** 以及之前的结构使用 **PSKEY_LOCAL_NAME0 -> PSKEY_LOCAL_NAME17 and PSKEY_LOCAL_NAME_LENGTH.**

Key Name	Key Number	Type	Default Setting
PSKEY_AFH_RSSI_THRESHOLD	0x0109	uint16	0x0800

This value controls the threshold of the entire RSSI classification algorithm. If the standard deviation of the power in the band is below this level then the device assumes that the entire band is clear and adapts its channel ratings accordingly.

这个值控制 **RSSI** 全部分类运算法则的开端。如果波段内功率的标准偏差低于这个水平，那么程序认定全部的波段是干净的，并因此改变它的信道等级。

Key Name	Key Number	Type	Default Setting
PSKEY_LM_CASUAL_SCAN_INTERVAL	0x010a	uint16	none

If this key is set and is none zero, `casual scanning' is enabled. The value then gives a maximum interval in slots between page and inquiry scans.

如果这一键值设定并且非 **0**，‘临时扫描’被激活。这个值则给出了一个寻呼和查询之间最大间隔时隙。

In this mode, page and inquiry scans are not necessarily performed with the frequency of the intervals set via HCI_write_inquiry_scan_activity and HCI_write_page_scan_activity. If the chip is active at any point after the interval specified over HCI since the previous scan, it will perform the scan of the appropriate type. If it does not become active within PSKEY_LM_CASUAL_SCAN_INTERVAL slots after the previous scan, it will perform the scan at that point.

在这个模式下，寻呼和查询模式没必要执行 **HCI_write_inquiry_scan_activity** 和 **HCI_write_page_scan_activity** 的间隔设置。如果在预先扫描时，芯片在 **HCI** 上的每个间隔空间之后是活跃的，它将执行恰当类型的扫描。如果在预先扫描之后它未在 **PSKEY_LM_CASUAL_SCAN_INTERVAL** 时隙中变为活跃状态，它将在那一点执行扫描。

This is most useful on hardware starting with BlueCore3-ROM. This contains support for waking the chip from deep sleep if the host provides a clock. In this case, if the host provides a clock at any time after the normal scan interval, the chip will wake to perform the scan in synchronisation with the host. Otherwise, it will wait until PSKEY_LM_CASUAL_SCAN_INTERVAL slots have elapsed and wake anyway.

它常用于 **BlueCore3-ROM** 的硬件启动。这包括如果主机供应一个时钟，它支持唤醒休眠的芯片。既然如此，如果在正常扫描间隔之后主设备供应一个时钟，芯片将启动，执行主设备扫描。另外，它将一直等待，直到 **PSKEY_LM_CASUAL_SCAN_INTERVAL** 时隙已经消失并启动。

For this reason this key should only be set when the host provides a clock input which goes low when the chip enters deep sleep. Otherwise there will be a significant performance impact as the chip will be woken unnecessarily. The key is also only useful with host transports which do not use

PSKEY_UART_SLEEP_TIMEOUT as the chip will stay awake for that period if woken by a host clock. This is likely to be a considerable inefficiency.

基于这一原因，这一键值只有在芯片处于深睡眠状体啊，主机提供一个低时钟输入时才被设置。另外，当芯片无需被激活时，这将是一个重大的性能影响。该键值在不能使用 **PSKEY_UART_SLEEP_TIMEOUT** 为芯片时，只能适用于主机传送，如果只能通过主机时钟来唤醒，那么它将在那一时段延缓苏醒。

On earlier hardware, the key is still usable, but casual wakeup relies on the chip being woken up for some other reason, either by the host or due to an internal timer.

在早期的硬件，这个键值仍然是可用的，但是临时的唤醒依赖于芯片被唤醒的其他原因，要么是主机，要么是内在的时钟。

Casual scanning is not used in continuous page scan, since in this case the chip never becomes inactive.

临时扫描不被用于连续的寻呼扫描，既然这样，芯片将不会成为非活动的。

If casual scanning is in use, the link manager will report the scan repetition mode based on the larger of the page scan interval and the casual scan interval.

如果临时扫描在使用中，连接管理者将通知扫描循环模式基于大的寻呼扫描间隔和临时扫描间隔。

Key Name	Key Number	Type	Default Setting
PSKEY_AFH_MIN_MAP_CHANGE	0x010b	uint16[]	2, 4

This key defines the minimum amount by which the device will change a channel map. If the channel map is rapidly changing by only a very small amount then the device prefers not to send too many channel map changes of classification reports.

这一键值定义一个设备将改变通道映射表的最小数量。如果信道映射表迅速的很小的改变数量，那么设备宁愿不发送太多的信道映射表改变分类报告。

The first number is the number of channels that must have got worse to cause the device to send a message. The second message is the number of channels that must have improved to cause the device to send a message. Having the second number bigger than the first means that the device will send messages more frequently as things become worse (as it knocks out more channels). The device will then only add channels back in as things become better.

第十一个数字是一个信道，它必须拥有一个损坏导致设备发送一个信息。第二个信道信息改良的导致设备发送一个信息。第二个值比第一个值大，设备将更频繁的发送信息如同事情变坏（打破个更多的信道）。信道将随即只添加地址通道如同事情边好。

Setting either value to zero will disable this feature - the device will send the channel map message whenever the channel map changes.

设置任何一个值为 **0** 将使这一部分失去作用，无论信道映射表是否改变，设备将发送信道映射表信息。

The 'all good' channel map is a special case: the device will always send this.

'all good'信道映射表是一个特别的情况，设备将总是发送这个。

This is not supported on 4Mbit builds. This is not supported on 17.x or earlier builds.

这不支持 **4Mbit** 结构，这不支持 **17.x** 或更早的结构。

Key Name	Key Number	Type	Default Setting
PSKEY_AFH_RSSI_LP_RUN_PERIOD	0x010c	uint16	5000

This is the period with which the LC will schedule a RSSI classification when the device only has 'low power mode' links, that is, if slots are available the radio is used as a spectrum analyser to read rssi on all

channels or as many as it has time for. These values are averaged and decay slowly.
当设备只拥有低功率模式连接时，这是一个 **LC** 将确定 **RSSI** 时间的周期。如果时隙是可利用的，无线传输被用作光谱分析仪去读取所有信道 **RSSI**。这些值是平均的并且衰减缓慢。
A link is in a 'low power mode' if it is in sniff or park. This key is normally much larger than 'PSKEY_AFH_RSSI_RUN_PERIOD' to reduce power when links are in sniff.
在呼吸或寻呼模式，一个连接工作在低功率模式。这个键值在正常情况下将比 **PSKEY_AFH_RSSI_RUN_PERIOD** 大许多，以缩小在呼吸模式下的功率。
This period is enabled by bit 6 in PSKEY_AFH_OPTIONS. The value of this key is in unit of ms.
这一节被 **PSKEY_AFH_OPTIONS6** 字节激活。这个值的单位是 **ms**。
This is not supported on 4Mbit builds. This is not supported on 17.x or earlier builds.
这不支持 **4Mbit** 结构，这不支持 **17.x** 或更早的结构。

Key Name	Key Number	Type	Default Setting
PSKEY_HCI_LMP_LOCAL_VERSION	0x010d	uint16	0x0303

This is the HCI_version and LMP_version information reported to the local host when the host send HCI_Read_Local_Version_Information. The HCI_Version is the top 8 bits, the LMP_Version is the bottom 8 bits.
当主机发送 **HCI_Read_Local_Version_Information** 时，这是 **HCI_version** 和 **LMP_version** 给本地主机的信息报告。**HCI_Version** 是高 **8** 位，**LMP_Version** 是低 **8** 位。

Key Name	Key Number	Type	Default Setting
PSKEY_LMP_REMOTE_VERSION	0x010e	uint8	0x03

This is the LMP_version information reported in LMP_version_res to the remote host when the remote host sends LMP_version_req. The LMP_Version is the bottom 8 bits.
这是一个当远端主机发射 **LMP_version_req** 时 **LMP_version_res** 内的 **LMP_version** 信息反馈。**LMP_Version** 是低 **8** 位。

Key Name	Key Number	Type	Default Setting
PSKEY_CONDITIONAL_SCAN_BACKOFF_TIME	0x010f	TIME	30000000

The period in microseconds for which conditional scanning will be disabled once the leaky bucket reaches PSKEY_CONDITIONAL_SCAN_BACKOFF_LEVEL. See that key's description for how the leaky bucket works.
一旦 **leaky bucket** 延伸 **PSKEY_CONDITIONAL_SCAN_BACKOFF_LEVEL**，百万分之一秒内的有条件扫描将被被失效。见键值描述：**leaky bucket** 如何工作。
The firmware also stops conditional scanning for this period when it receives an inquiry or when the last connection has just ended, returning the firmware to the idle state. Conditional scanning is never performed in the connected state.
当它接收到一个查询指令或最后的连接正好结束时，硬件也会停止有条件的扫描，硬件将返回静止状态。在连接状态从不执行有条件扫描。

Key Name	Key	Type	Default Setting

	Number		
PSKEY_CONDITIONAL_SCAN_BUCKET_BOTTOM	0x0110	int8	-10

This value provides a clip on the minimum level of the leaky bucket used to manage the power use of the conditional scan. The closer this value is to zero, the less a history of radio inactivity will matter when deciding whether to conditional scan.

这个值提供一个 leaky bucket 修剪的最小水平，用于控制条件扫描的功率。较接近的值为 0，减少非活动无线传输的历史将成为是否条件扫描的关键。

See the description of PSKEY_CONDITIONAL_SCAN_BACKOFF_LEVEL for a description of the leaky bucket mechanism.

见 **PSKEY_CONDITIONAL_SCAN_BACKOFF_LEVEL** 关于 **leaky bucket** 的描述。

Key Name	Key Number	Type	Default Setting
PSKEY_CONDITIONAL_SCAN_BUCKET_BACKOFF_LEVEL	0x0111	int8	10

When using conditional scan, if the radio environment is busy, performing the conditional scan plus the ordinary page/inquiry scan will use more power than conditional scan alone. To turn off conditional scan when the radio environment is busy, the LM uses a leaky bucket filter.

当使用条件扫描，如果无线传输环境紧张，进行条件扫描外加平常的寻呼查询扫描将比只使用条件扫描占用更多的功率。当传输环境紧张时，关闭条件扫描，LM 运用一个 leaky bucket 过滤器。

The bucket level is incremented by 1 whenever the conditional scan detected a radio source, and decremented by an amount which depends on the scan window and interval when the conditional scan did not detect a radio source. The decrement amount is calculated to keep the level at zero at the percentage chance of radio activity where conditional scanning uses an equal amount of power to not conditional scanning. When the level rises above zero, it is becoming inefficient to conditional scan. When the level goes below zero (possible as the level is a signed value), it is more efficient to conditional scan than not to.

只要发现一个无线电源，桶水平增加 1。当条件扫描未发现无线电源，将消耗一个依赖于扫描窗口和间隔的数量。消耗数量的目的是保持无线传活跃度输百分比几率为 0，使得条件扫描和非条件扫描拥有等同的功率。当水平上升到 0 以上，它变为低功率条件扫描。当水平低于 0，（值可能有正负只分）条件扫描比非条件扫描更有效。

When the bucket level reaches the value of this key, conditional scanning is disabled for the period of time given by PSKEY_CONDITIONAL_SCAN_BACKOFF_TIME. It is then re-enabled with the bucket level set back to zero.

当这一键值的同水平值延伸，在 PSKEY_CONDITIONAL_SCAN_BACKOFF_TIME 所给的时段条件扫描失效。它将在桶水平回到 0 后再次生效。

Key Name	Key Number	Type	Default Setting
PSKEY_CONDITIONAL_SCAN_BACK_TO_BACK_OPTIMISE	0x0112	bool	TRUE

When page scan and inquiry scan have the same interval, to save power we arrange to do the scans back to back, with inquiry scan first and then page scan. When this key is true, if the inquiry scan was a conditional scan and the conditional scan heard nothing, the following page scan is not performed.

Conversely, if the inquiry scan was a conditional scan and heard something, the following page scan is never a conditional scan, but always an ordinary page scan. This key is best used when the scan window is short compared to the scan interval.

当寻呼扫描和查询扫描具有相同的间隔，我们安排来回的做扫描以节省功率，先是查询扫描，然后是寻呼扫描。当这个键值为 TRUE,如果查询扫描是条件扫描，并且条件扫描未监听到任何信息，那么接下来的寻呼扫描将不被执行。相反的，如果寻呼扫描是一个条件扫描，并且监听到一些活动，接下来的寻呼扫描将不再是一个条件扫描，但经常是一个普通的寻呼扫描。这一键值最好在扫描窗口短于扫描间隔时使用。

When this key is false, the conditional scanning from page and inquiry are not coupled in this way, although both still contribute to the leaky bucket which decides whether to conditional scan.

当这个键值设置为 FALSE 时，查询和寻呼的条件扫描将不再通过此方法接入，虽然他们仍然用漏统判断是否为条件扫描。

This key only has an effect if conditional scan is enabled using PSKEY_CONDITIONAL_SCAN_ENABLE.

这一键值只有在 PSKEY_CONDITIONAL_SCAN_ENABLE 激活时才生效。

Key Name	Key Number	Type	Default Setting
PSKEY_HOLD_ERROR_MESSAGE_NUMBER	0x0113	uint16	1

Maximum number of HCI Hardware Error Events which maybe present in the queue of HCI events being sent to the host.

HCI 硬件错误事件的最小值，在被发送到主机的 HCI 事件中。

If this is set to 0 then no limit imposed.

如果这个值是 0 则没有强制限制。

Key Name	Key Number	Type	Default Setting
PSKEY_ERROR_CODE_LTADDR_EXHAUSTION	0x0114	uint8	0x09

The BlueTooth specification doesn't make it clear as to which HCI error code should be used if a device runs out of LT addresses when it has fewer than the maximum allowed number of ACL connections (see PSKEY_MAX_ACLS). This can happen if a connection is lost without a clean disconnect taking place; the device will then reserve the address that the connection was using for some amount of time.

蓝牙说明书并未解释当小于 ACL 最大允许值时，如果一个装置运行超出 LT 地址哪个 HCI 错误代码会被使用。（见 PSKEY_MAX_ACLS）如果一个连接在没有清除拆分，这一事件将发生； 设备将随即接收连接用于一些时间量的地址。

If an attempt is made to create an ACL connection, such as in order to perform a remote name request or service search, when the device has fewer than PSKEY_MAX_ACLS existing ACL connections but has no available LT_ADDRs, the value of this key is returned in the HCI command complete event. Note that the value of this key does not get validated at all. However, it is recommended that only the following values are used:

如果试图创造一个 ACL 连接，比如为了执行一个远端名称请求或服务查询，当设备拥有少于 PSKEY_MAX_ACLS 现有的 ACL 连接但是没有可用的 LT_ADDRs,，这一键值返回 HCI 命令完善时间。记录这一键值不会有任何价值，但是，推荐只有下列值被使用：

- Connection Limit Exceeded (0x09)

This is the same error code as is returned if PSKEY_MAX_ACLS is exceeded. As this value is ambiguous, it is unsuitable for some hosts.

连接限制超越（0x09）

这和超越 PSKEY_MAX_ACLS 所返回的错误代码相同，这一值是含糊的，它不适合一些主机。

- Memory Capacity Exceeded (0x07)

This error code is also returned if the device runs out of RAM and suggests to the host that the attempt should succeed if the host first performs an operation that will free up some RAM. As freeing RAM will not help in the case of LT_ADDR exhaustion, this error code is misleading and so unsuitable for some hosts.

存储器容量被超越（0x07）

当设备运行超出 RAM 时这一错误代码也被返回，建议主机如果主机首先执行一个释放一些 RAM 的操作，这一尝试需要继续。在 LT_ADDR 枯竭的情况下释放 RAM 不会起到任何作用，这个错误代码具有迷惑性，不适合一些主机。

- Connection Rejected due to Limited Resources (0x0d)

由于资源有限，连接被拒绝。（0x0d）

This error code is meant to suggest that the connection has been rejected by the remote device but, in this case, the connection has been rejected by the local device so this error code is not correct.

这个错误代码提醒连接被远端设备拒绝，但是连接被本地设备拒绝，所以，这个错误代码是不恰当的。

- Unspecified Error (0x1f)

The most suitable of the defined error codes but not specific to this error condition

未说明的错误（0X1f）

最恰当的定义错误代码但是没有详述错误情况。

Key Name	Key Number	Type	Default Setting
PSKEY_DFU_ATTRIBUTES	0x0136	uint8	7

The bmAttributes field of the run time DFU Functional Descriptor, as defined in Table 4.2 of USB DFU specification 1.0.

DFU Functional Descriptor 运行时间的 bmAttributes 区域，在 USB DFU 说明 1.0 中有所定义。

The default value (7) mysteriously means "manifest tolerant, upload + download capable."

默认值 7 意味着明显的上传和下载能力。

This applies for the USB and "DFU over UART" (protocol name not yet allocated) protocols.

这是 USB 和 "DFU over UART"的请求（协议名称未被分配）协议。

Key Name	Key Number	Type	Default Setting
PSKEY_DFU_DETACH_TO	0x0137	uint16	5000

The wDetachTimeOut field of the run time DFU Functional Descriptor, as defined in Table 4.2 of USB DFU specification 1.0.

DFU Functional Descriptor 运行时间的 **wDetachTimeOut** 区域，在 **USB DFU** 说明 **1.0** 中有所定义。
The value is in milliseconds.
这个值是毫秒。
This applies for the USB and "DFU over UART" (protocol name not yet allocated) protocols.
这是 **USB** 和 **"DFU over UART"**的请求（协议名称未被分配）协议。

Key Name	Key Number	Type	Default Setting
PSKEY_DFU_TRANSFER_SIZE	0x0138	uint16	1023

The wTransferSize field of the run time DFU Functional Descriptor, as defined in Table 4.2 of USB DFU specification 1.0. This key applies to both the USB and "DFU over UART" (protocol name not yet allocated) protocols.
DFU Functional Descriptor 运行时间的 **wTransferSize** 区域，在 **USB DFU** 说明 **1.0** 中有所定义。这一键值应用于 **USB** 和**"DFU over UART"**之间（协议名称未被分配）协议。
The maximum permissible value for this key is 1023 for both transports. (This limit is imposed by the USB hardware). The default value (1023) is in bytes. Note that the BCSP size may be overridden (by a smaller value) at low baud rates.
对于所有的传输装置，这个键值的最大允许值为 **1023.**（这个限制受控与 **USB** 硬件）

Key Name	Key Number	Type	Default Setting
PSKEY_DFU_ENABLE	0x0139	bool	TRUE

If TRUE this enables the use of dfu i.e. support for dfu will be advertised in the USB descriptors and dfu commands will be processed. Otherwise support for the protocol will not be advertised and dfu commands will be rejected.
如果是 **TRUE**,将可以使用 **dfu**，也就是说在 **USB** 描述中将支持 **dfu**，**dfu** 命令将被处理。另外，支持协议将将不被注意，**dfu** 命令将被拒绝。
This key applies to both the USB and "DFU over UART" (protocol name not yet allocated) protocols. It is intended for use in countries such as Japan where firmware upgrades may not allowed for radio devices.
这一键值应用于 **USB** 和**"DFU over UART"**（协议名称未被分配）协议。它将预计用于日本等不允许无线电设备硬件升级的国际。
(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_DFU_LIN_REG_ENABLE	0x013a	bool	FALSE

Some chips have a linear regulator. On certain builds, the register that controls this functionality may need to be asserted at boot time when in DFU mode. Setting this PSKEY to TRUE ensures that this occurs.
一些芯片拥有线性调节器。在确定的结构，在 **DFU** 模式下，控制这一功能需要在启动使被说明。设置这一键值为 **TRUE** 确保这一情况的出现。

Key Name	Key Number	Type	Default Setting
PSKEY_DFUENC_VMAPP_PK_MODULUS_MSB	0x015e	uint16[]	none

This is a 32-word array containing the more significant block of the public key for DFU signing of a VM application. See PSKEY_DFUENC_VMAPP_PK_MODULUS_LSB for the other part.
这是一个 32 字排列容纳 VM 申请 DFU 信号的更多公共密钥有意义的时钟。见另一部分的 **PSKEY_DFUENC_VMAPP_PK_MODULUS_LSB**。

Key Name	Key Number	Type	Default Setting
PSKEY_DFUENC_VMAPP_PK_MODULUS_LSB	0x015f	uint16[]	none

This is a 32-word array containing the less significant block of the public key for DFU signing of a VM application. See PSKEY_DFUENC_VMAPP_PK_MODULUS_MSB for the other part.
同上

Key Name	Key Number	Type	Default Setting
PSKEY_DFUENC_VMAPP_PK_M_DASH	0x0160	uint16	none

This is a 16-bit word containing the reciprocal of the public key mod 0x10000 used in DFU signing of a VM application.
同上

Key Name	Key Number	Type	Default Setting
PSKEY_DFUENC_VMAPP_PK_R2N_MSB	0x0161	uint16[]	none

This is a 32-word array containing the more significant block of the R2N multiplier for DFU signing of a VM application. See PSKEY_DFUENC_VMAPP_PK_R2N_LSB for the other part.
同上

Key Name	Key Number	Type	Default Setting
PSKEY_DFUENC_VMAPP_PK_R2N_LSB	0x0162	uint16[]	none

This is a 32-word array containing the less significant block of the R2N multiplier for DFU signing of a VM application. See PSKEY_DFUENC_VMAPP_PK_R2N_MSB for the other part.
同上

Key Name	Key Number	Type	Default Setting
PSKEY_BCSP_LM_PS_BLOCK	0x0192	BCSP_LM_PS_BLOCK	1, 0, 250

Configure the BCSP link establishment protocol. This is only used if BCSP is used over the chip's UART.
设定 **BCSP** 连接确定协议。只有在 **BCSP** 运用在芯片的 **UART** 上时才运用这一键值。
The configuration uses a structure of type BCSP_LM_PS_BLOCK in which the fields are:
这个结构使用 **BCSP_LM_PS_BLOCK** 结构类型。

uint16 mode 0 - disable link establishment. 使连接设定失效。
1 - enable link establishment. 使连接设定生效。

2 - enable passive-start link 使被动优先连接失效。
establishment.

uint16 sync_retries Support for this argument has been
removed.
It used to set the number of sync
packets emitted before the BCSP
link establishment engine gave up
and marked the link as dead. A
value of zero meant "don't stop."
The BCSP link establishment engine
now always behaves as if the value
is zero.

用于在 BCSP 确定方法放弃之前和在消失标记连接时，设置被发出的同步包数量。0 值意味着“不要停止”BCSP 连接确定马上行动。

uint16 tshy The Tshy value in milliseconds.
This value is also used by the
BCSP link establishment engine's
Tconf timer.

这一值也被用于 BCSP 连接确立的 Tconf 计时器。

The "mode" field used to be a bool. One particular manufacturer's laptop crashes if it receives UART traffic while the machine is booting, so the "passive-start" option has been added. This causes the chip's link establishment engine to emit no messages until it receives traffic from the host. If the host pulls the same trick neither will talk to the other, so the link will never be used.

模式区域是 bool 类型，当机器启动时，如果收到 UART 交换，一个详细厂商的 laptop 损毁。因此，一个被动启动的选项被添加。这导致芯片连接确定发动不发送信息直到接收到主机的传送。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_FC_PS_BLOCK	0x0193	HOSTIO_FC_PS_BLOCK	250, 4, 4, FALSE

Configure the host to chip hci flow control.

设置主机到芯片 HCI 的流控制。

The configuration uses a structure of type HOSTIO_FC_PS_BLOCK in which the only field currently used is:

配置使用一个 HOSTIO_FC_PS_BLOCK 的结构类型， 被唯一普遍使用的区域：

bool allow_sco_fc - if TRUE then the chip will allow SCO
over HCI flow control to be turned on, else it
will be refused.

如果是 TRUE，那么芯片将允许 SCO 高于 HCI 流控制开启。其它将被拒绝。

The remaining fields are redundant:

保留区域是多余的：

uint16 ncp_max_period - the default milliseconds between
sending NCP (hci number of completed packets)
events to the host.

在发送 **NCP**（全部包的 **HCI**）事件到主机时的默认毫秒.

uint16 acl_trip_level - the number of ACL packets required
to cause an extra NCP event to be sent to the
host.

必要的的引起一个额外的 **NCP** 事件被发送到主机的 **ACL** 包数量。

uint16 sco_trip_level - the number of SCO packets required
to cause an extra NCP event to be sent to the
host.

必要的的引起一个额外的 **NCP** 事件被发送到主机的 **SCO** 包数量。

(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_HOSTIO_PROTOCOL_INFO0	0x0194	PROTOCOL_INFO	0, FALSE, 0, FALSE

Configure the protocol that flows over BCSP channel 0.

设置 **BCSP 0** 信道溢出协议。

The host transport subsystem provides 16 channels, each of which is configured by a PROTOCOL_INFO struct held in the ps; the structure is described below.

主设备传送子系统供应 **16** 个通道，每个配置被 **PROTOCOL_INFO** 严格的设定，结构描述如下：

BCSP channel 0 is dedicated to signalling between BCSP stacks - it carries message acknowledgements - so it is not available as a channel to carry user messages through BCSP. I.e., the information on the PROTOCOL_INFO structure is useless for channel 0, but other channels use the same structure and their descriptions refer here. Channel 0 is used by the BCSP host transport only.

BCSP 的 **0** 信道致力于 **BCSP** 堆栈间的信号-它携带确认信息-所以它不允许是一个携带使用者信息穿过 **BCSP** 的信道。也就是说，在 **0** 信道，**PROTOCOL_INFO** 信息是无效的，但是，其它信道使用同样的结构，他们的描述参照这一规则。信道 **0** 仅用于 **BCSP** 主设备传输。

CSR document bc01-s-020 describes the allocation of BCSP's channels.

CSR 说明 **bc01-s-020** 描述了 **BCSP** 的信道配置。

The type PROTOCOL_INFO has the following fields:

PROTOCOL_INFO 类型有如下范围：

uint16 max_tx_payload_size - The maximum size in bytes of
BCSP payload sent to the host. For ACL and SCO the
actual maximum size will be the lower of the value
from PS and the value indicated to BlueCore in the
host's HOST_BUFFER_SIZE command, if one has been
received. In addition, at runtime, we check these
values against the size of hardware buffer
allocated.

max_tx_payload_size -BCSP 被发送到主设备的最大字节范围。对于 **ACL** 和 **SCO** 来讲，时机的最大值将是 **PS** 和蓝牙主设备的 **HOST_BUFFER_SIZE** 显示的值的较低值。如果一个被认可，在运行时，我们阻止这些值违反硬件缓冲期非配。

int:1 reliable_stream - TRUE if the protocol uses BCSP's
reliable stream.

reliable_stream-如果协议使用 **BCSP** 的可靠流信息则设置为 **TRUE.**

int:4 priority - A value between 0 and 7. Lower values have higher priority. The priority is used by the chip's BCSP scheduler when deciding what data to send to the host.

一个 **0** 到 **7** 之间的值。较低的值拥有较高的优先权。当决定什么样的数据发送给主设备时，优先权被芯片的 **BCSP** 调度程序所使用。

int:1 enabled - TRUE if the protocol is enabled. The current design of the firmware code requires each protocol to be enabled explicitly internally by the firmware, so this flag should always be FALSE.

如果协议是被激活的则设置为 **TRUE**。固件通用设计编辑每个协议被固件明确的激活命令。所以，这个标记应该常被设置为 **FALSE**。

The last three fields are packed as bit fields in the second word.

最后三个位置被第二个字的字节区域占据。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_PROTOCOL_INFO1	0x0195	PROTOCOL_INFO	256, FALSE, 0, FALSE

Configure the protocol that flows over BCSP channel 1. This channel carries BCSP link establishment if BCSP is used. This channel is used only when BCSP is the host transport.

设置信道 **1** 的 **BCSP** 溢出协议。如果这 **BCSP** 被使用，这个信道传送 **BCSP** 连接设定。这个信道只有在 **BCSP** 为主设备时才被使用。

The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0.

协议被设定为一个 **PROTOCOL_INFO** 结构。该结构在 **PSKEY_HOSTIO_PROTOCOL_INFO0**.资料中有所描述。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_PROTOCOL_INFO2	0x0196	PROTOCOL_INFO	256, TRUE, 3, FALSE

Configure the protocol that flows over host transport channel 2. This channel carries bccmd - the host to chip "private channel". This channel is available for all host transports.

设置信道 **2** 的主设备传输增益协议，这个信道传送 **bccmd-**主设备到芯片的“专用通道”。这一信道运用在所有的主设备传输。

The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0.

协议被设定为一个 **PROTOCOL_INFO** 结构。该结构在 **PSKEY_HOSTIO_PROTOCOL_INFO0**.资料中有所描述。

Key Name	Key Number	Type	Default Setting

PSKEY_HOSTIO_PROTOCOL_INFO3	0x0197	PROTOCOL_INFO	256, TRUE, 3, FALSE
Configure the protocol that flows over host transport channel 3. This channel carries hq - the chip to host "private channel". This channel is available for all host transports. **设置信道 2 的主设备传输增益协议。这个信道传送 hq-芯片到主机的“专用通道”。这一信道运用在所有的主设备传输。** The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0. **协议被设定为一个 PROTOCOL_INFO 结构。该结构在 PSKEY_HOSTIO_PROTOCOL_INFO0.资料中有所描述。**			

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_PROTOCOL_INFO4	0x0198	PROTOCOL_INFO	512, TRUE, 4, FALSE
Configure the protocol that flows over channel 4. This channel carries dm (device manager) traffic. This channel is available for all host transports. **设置信道 4 增益协议。这一信道传送 dm（设备管理）传输。这一信道运用在所有的主设备传输。** The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0. **同上条。**			

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_PROTOCOL_INFO5	0x0199	PROTOCOL_INFO	259, TRUE, 5, FALSE
Configure the protocol that flows over channel 5. This channel carries HCI commands and events. This channel is available for all host transports. **设置信道 5 增益协议。这一信道传送 HCI 指令和事件。这一信道运用在所有的主设备传输。** The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0. **同上条。**			

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_PROTOCOL_INFO6	0x019a	PROTOCOL_INFO	512, TRUE, 6, FALSE
Configure the protocol that flows over host transport channel 6. This channel carries HCI ACL traffic. This channel is available for all host transports. **设置信道 6 的主设备传输增益协议。这一信道传送 HCI ACL。这一信道运用在所有的主设备传输。** The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0. **同上条。**			

Key Name	Key Number	Type	Default Setting

PSKEY_HOSTIO_PROTOCOL_INFO7	0x019b	PROTOCOL_INFO	255, FALSE, 1, FALSE

Configure the protocol that flows over host transport channel 7. This channel carries HCO SCO traffic. This channel is available for all host transports.

设置信道 7 的主设备传输增益协议。这一信道传送 HCI SCO。这一信道运用在所有的主设备传输。

The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0.

同上条。

See also PSKEY_HOSTIO_MIN_UART_HCI_SCO_SIZE.

也可以参考 PSKEY_HOSTIO_MIN_UART_HCI_SCO_SIZE。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_PROTOCOL_INFO8	0x019c	PROTOCOL_INFO	2048, TRUE, 7, FALSE

Configure the protocol that flows over host transport channel 8. This channel carries L2CAP traffic. This channel is available for all host transports.

设置信道 8 的主设备传输增益协议。这一信道传送 L2CAP。这一信道运用在所有的主设备传输。

The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0.

同上条。

This channel also carries PAN (BNEP, TCP, UDP) traffic in PAN builds. In this case, if the value of max_tx_payload_size is less then 2048 then a value of 2048 will be assumed instead.

在 PAN 构造中，这个信道也传送 PAN（BNEP,TCP,UDP）.因此，如果 max_tx_payload_size 的值小于 2048，那么 2048 将被采取替换。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_PROTOCOL_INFO9	0x019d	PROTOCOL_INFO	2048, TRUE, 7, FALSE

Configure the protocol that flows over host transport channel 9. This channel carries RFCOMM traffic. This channel is available for all host transports.

设置信道 9 的主设备传输增益协议。这一信道传送 RFCOMM。这一信道运用在所有的主设备传输。

The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0.

同上条。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_PROTOCOL_INFO10	0x019e	PROTOCOL_INFO	256, TRUE, 7, FALSE

Configure the protocol that flows over host transport channel 10. This channel carries SDP traffic. This channel is available for all host transports.

设置信道 10 的主设备传输增益协议。这一信道传送 DSP。这一信道运用在所有的主设备传输。

The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the

information on PSKEY_HOSTIO_PROTOCOL_INFO0.
同上条。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_PROTOCOL_INFO11	0x019f	PROTOCOL_INFO	256, TRUE, 7, FALSE

Configure the protocol that flows over host transport channel 11. This channel carries test information if BCSP is used. This channel is available for all host transports.
设置信道 11 的主设备传输增益协议。如果 BCSP 被使用这一信道传送测试信息。这一信道运用在所有的主设备传输。
The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0.
同上条。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_PROTOCOL_INFO12	0x01a0	PROTOCOL_INFO	4095, TRUE, 7, FALSE

Configure the protocol that flows over host transport channel 12. This channel is used to upgrade the chip's firmware. This channel is available for all host transports.
设置信道 12 的主设备传输增益协议。这一信道用于升级芯片固件。这一信道运用在所有的主设备传输。
The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0.
同上条。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_PROTOCOL_INFO13	0x01a1	PROTOCOL_INFO	256, TRUE, 7, FALSE

Configure the protocol that flows over host transport channel 13. This channel is used by the chip's application space (virtual machine). This channel is available for all host transports.
设置信道 13 的主设备传输增益协议。这一信道用于芯片请求间隔（虚拟计算机）。这一信道运用在所有的主设备传输。
The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0.
同上条。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_PROTOCOL_INFO14	0x01a2	PROTOCOL_INFO	0, TRUE, 7, FALSE

Configure the protocol that flows over host transport channel 14. This channel is unallocated. Since this is the last free channel, anything that needs an extra channel should multiplex within this channel. This channel is available for all host transports.

设置信道 **14** 的主设备传输增益协议。这一信道未被分配，由于这是最后一个空闲的信道，所有需要额外信道的传输都需要复合在这一信道。这一信道运用在所有的主设备传输。

The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0.

同上条。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_PROTOCOL_INFO15	0x01a3	PROTOCOL_INFO	0, TRUE, 7, FALSE

Configure the protocol that flows over host transport channel 15. This channel is unallocated. It should be reserved as a possible means of signalling a later version of BCSP between host and chip. (Alternatively, this could be done using an extension to the link establishment protocol.) This channel is available for all host transports.

设置信道 **15** 的主设备传输增益协议。这一信道未被分配，它需要被保留，用于传输一个主机和芯片间的 **BCSP** 延迟形式信号。（二选一，这个可以在使用扩展连接确定协议时使用）这一信道运用在所有的主设备传输。

The protocol is configured with a PROTOCOL_INFO structure. The structure is described in the information on PSKEY_HOSTIO_PROTOCOL_INFO0.

同上条。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_UART_RESET_TIMEOUT	0x01a4	TIME	0

Configure the UART's reset counter timeout in microseconds.

设置 **UART** 的复位，计算毫秒超时。

If the UART's receive data line is held low for this period then the chip's (hardware) resets itself. Accuracy is +/- 30%, so it's important to specify to the nearest microsecond.

如果哦 **UART** 的接收数据连接在这一时刻持续为低，那么芯片（硬件）自动复位。准确度为**+/- 30%**，所以指定最接近的微秒数是很重要的。

If this value is zero then the feature is disabled.

如果这个值为 **0** 那么这一特征将丧失能力。

Values between 1 and 999 are treated as zero.

值为 **1** 到 **999** 被处理为 **0.**

This feature only works with the UART host transports: BCSP, H4, H5 and VM access to the UART.

这一特征值在 **UART** 主设备传输起作用：**BCSP,H4,H5** 和 **UARTVM** 使用权。

(Type TIME is fundamentally a uint32.)

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_USE_HCI_EXTN	0x01a5	bool	FALSE

If the system is using BCSP and this key is FALSE then the non-HCI BCSP channels (currently 7: BCCMD, HQ, 4 higher layer access libs and the VM's channel) are routed via their BCSP channels, else they are routed via hci_extn (described in CSR document bc01-s-023).

如果系统运用 **BCSP** 并且这个键值是 **FALSE**，那么 **non-HCI BCSP** 通道（当前为 **7**：**BCCMD,HQ**，**4** 个更高层入口 **libs** 和 **VM** 的信道）被发送它们的 **BCSP** 信道值。另外，它们发送 **hci_extn** 值（在 **CSR** 说明 **bc01-s-023)**中有所描述。）

If the system is using H4 or USB then these channels are always routed over hci_extn.

如果这一系统使用 **USB** 或者 **H4**,那么它们的信道通常在 **hci_extn** 之上被发送。

(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_USE_HCI_EXTN_CCFC	0x01a6	bool	FALSE

If the system is using hci_extn to carry the non-HCI channels (see the description of PSKEY_HOSTIO_USE_HCI_EXTN) and this key is TRUE then the chip emits an "hci command complete event" for each HCI manufacturer extension command.

如果系统使用 **hci_extn** 传送 **non-HCI** 通路（见 **PSKEY_HOSTIO_USE_HCI_EXTN** 描述）并且这一键值设置为 **TRUE**，那么芯片为每个 **HCI** 制造商发射一个“**HCI** 命令完善事件”命令。

Setting this TRUE means that the host->chip data flow through hci_extn fits most closely to the HCI flow control model, but it also means the hci_extn channel has glacial performance. If this is FALSE then the hci_extn traffic depends (only) on the tunneled channels' own flow control mechanisms.

设置为 **TRUE** 意味着 **host->chip** 数据流尽可能的接近 **HCI** 流控制模式穿过 **hci_extn**。但也同时意味着 **hci_extn** 信道具有冰冷的性能。 如果设置为 **FALSE**，那么 **hci_extn** 传输依赖通路自己的流控制装置。

(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_HCI_EXTN_PAYLOAD_SIZE	0x01a7	uint16	255

If the system is using hci_extn to carry the non-HCI channels (see the description of PSKEY_HOSTIO_USE_HCI_EXTN) then this value specifies the maximum size of the HCI event payloads when primitives on non-HCI channels are fragmented. This value is the size of the HCI event payload, of which one byte is used for the HCI-extn payload descriptor. Hence each fragment will be (at most) one byte less than this value. The minimum value for this PS value is therefore 2, though such a low value is likely to give extremely poor performance. The maximum value is 255 (because the length field in the HCI event header is only 8 bits wide).

如果系统使用 **hci_extn** 传送 **non-HCI** 通路（见 **PSKEY_HOSTIO_USE_HCI_EXTN** 描述），那么当原始值在 **non-HCI** 信道里被且成碎片时，这一值为 **HCI** 事件有效载荷的最大值。这一值是 **HCI** 有效载荷的尺寸值，用于 **HCI** 有效载荷的 **1** 个字节。因此每个片段将（最多）比这个值小一个字节。这个值的最小 **PS** 值因此为 **2**，即使如此低的一个值很有可能会提供一个相当不好的性能。最大值是 **255**（因为 **HCI** 的长度区域报头只有 **8bit** 宽度）。

Setting this value smaller than the maximum expected payload size forces hci_extn to fragment. This can be good when the host connection carries time-critical traffic, notably SCO.

设置这个值小于最大值期待有效载荷尺寸强制 **hci_extn** 到片段。当主机连接发送临界时间时，这个值是好的，最显著的为 **SCO**。

Key Name	Key Number	Type	Default Setting

PSKEY_BCSP_LM_CNF_CNT_LIMIT	0x01aa	uint16	20

The value of this pskey is only used if PSKEY_USE_OLD_BCSP_LE is set to TRUE.

这个键值只有在 PSKEY_USE_OLD_BCSP_LE 设置为 TRUE 时才被使用。

Most early versions of the BCSP Link Establishment engine detected only that the peer BCSP stack had started - this is what the protocol was designed to do, as the protocol was written to support a host and BlueCore01 on the same circuit board (in a cell phone).

最接近 BCSP Link Establishment（连接确立）被发现的方法只有同等的 BCSP 对战已经启动-这是协议有计划的去做的。协议支持一个主机和 BlueCore01 在同一块电路板上（在电话里）。

Later versions of the BCSP Link Establishment engine use an extension that allows the local engine to spot when the peer engine restarts - typically the case when the peer reboots.

较晚的 BCSP Link Establishment 描述使用了扩展，它允许当低发动设备复位时本地发动设备侦听-当发动设备启动时代表原因。

To use this feature both sides of the BCSP link must support this extension and the value of this variable must be non-zero. This variable sets the number of "conf" messages emitted by the local engine, as described in bc01-s-010f.

在 BCSP 的两侧使用这个特征必须支持这个扩展，这个变量的值必须为非零。这个值设置本地发动设备发出的“conf”数量，在 bc01-s-010f 中有所描述。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_MAP_SCO_PCM	0x01ab	bool	FALSE

At the time of writing this comment SCO over HCI only works over BCSP. Code to support for SCO over USB and H4 is present, but it is untested.

在 HCI 上写这个描述 SCO 时，只研究了 BCSO，代码支持 USB 上的 SCO 和 H4，但是未经实验。

To route SCO data over the PCM port there are two choices:

在 PCM 端口发送 SCO 数据有两种选择：

Use the BCCMD (private channel) command MAP_SCO_PCM to cause the next HCI Add_SCO_Connection command to route to a PCM port.

使用 BCCMD 命令 MAP_SCO_PCM 导致下一个 HCI　Add_SCO_Connection 命令发送到一个 PCM 端口。

Use this pskey.

运用这个键值。

If this pskey is TRUE then all attempts to open SCO connections map to PCM ports. I.e., this pskey overrides the BCCMD command.

如果设置为 TRUE，那么所有所有尝试打开 SCO 连接到 PCM 端口。也就是说，这一键值不考虑 BCCMD 命令。

In HCI 14.X builds, only a single SCO stream can flow over the BlueCore2-EXT's PCM port.

在 HCI14.X 构架，只有一个单一的 SCO 数据流可以流过 BlueCore2-EXT 的 PCM 端口。

In HCI 15.X, and later, builds, setting the pskey causes all attempts to open SCO channels to run over *the first* PCM channel in the PCM port. (The clock settings in PSKEY_PCM_CONFIG32 determine whether the PCM port can carry more than one SCO channel.)

在 15.X 及其只有的构架，设置这一键值会导致所有打开 SCO 信道的尝试在 PCM 端口运行*the first*PCM 信道。

See PSKEY_HOSTIO_MAP_SCO_PCM_SLOT.
(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_BREAK_POLL_PERIOD	0x01ad	TIME	0

The rate at which to poll the UART at start up in order to determine if the host is sending a break (continuous 0) in microseconds. Between polls the chip enters a low power state (deep sleep). If the break signal is removed, normal operation resumes.
如果主设备发送一个间歇（连续的 0）在百分之一秒，为了确定启动时 UART 的等级.在使芯片进入低功率状态期间（深睡眠）。如果见写信号被隔离，常规运转将重新开始。
This key is intended to be used in conjunction with PSKEY_HOSTIO_UART_RESET_TIMEOUT and enables the host to force the chip into a low power state using a limited number of IO lines.
这一键值被确定为与 PSKEY_HOSTIO_UART_RESET_TIMEOUT 合作，使主设备能够使用少数 IO 连接强制芯片到低功耗状态。
To place the chip in a low power state, the host sends a continuous break which will force a (hardware) reset if the aforementioned key is set. After resetting, if the break is still present, the chip will enter a low power state, waking only at the rate defined by this key to check for the continuing presence of the break.
设置芯片为低功耗状态，如果上述键值被设置，主机发送一个持续的间歇将强制一个（硬件）复位。如果间歇持续出现，芯片将进入一个低功耗状体啊，只有在这一键值控制等级去控制间歇的连续出现才能被唤醒。
A short delay (of a few hundred microseconds) will occur after the reset before the low power state is entered. This is due to the time required to initialise the ps and the support for deep sleep.
在低电平状态之前，将有一个短暂的延迟出现在复位之后。这是因为时间被初始化和对深睡眠的支持。
If this value is zero then the feature is disabled.
如果这个值为 0 则作用消失。
This feature only works with the BCSP, H4 and H5 host transports.
这个功能只对 BCSP，H4,H5 的传输起作用
(Type TIME is fundamentally a uint32.)

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_MIN_UART_HCI_SCO_SIZE	0x01ae	uint16	30

A SCO link provides a steady flow of audio samples from air that have to be sent to the host. When SCO data is passed to the host over HCI (i.e., not over the chip's PCM port) the samples have to be formed into HCI SCO packets.
一个 SCO 连接供应一个必须被发送到主设备的稳流音频信号。当 SCO 数据通过 HCI 传送到主设备（也就是说不通过芯片的 PCM 端口），信号必须被组成 HCI SCO 数据包。
This pskey sets the minimum number of *samples* in each HCI SCO packet sent to the host over a UART transport - BCSP and H4. (USB has separate rules for defining SCO transport.)
这一键值用于设置在每个 HCI SCO 包从 URAT 传输，BCSP 和 H4 上发送到主设备的信号最小值 （USB 有单独的定义 SOC 传送规则）。

Audio people will want this set to zero to minimise audio data latency, however this can crowd other data off the host transport. When the available host bandwidth is too low this can block all other traffic, so HCI ACL, HCI CMD/EVT, etc. stop flowing.

音频使用者将希望这个值设置为 0，以达到最小的音频数据反映时间。但是，这会挤满主设备传输的其它数据。当可利用的带宽很小，这会阻塞所有的其它传输。那么，HCI ACL,HEI CMD/EVT 等等，将停止传输。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_MAP_SCO_CODEC	0x01b0	bool	FALSE

Some versions of BlueCore include an audio codec, typically used to drive an external microphone and earpiece.

一些蓝牙译文包括了一个音频解码器，代表性的用于驱动一个外部扩音器和听筒。

If this pskey is TRUE, and if PSKEY_HOSTIO_MAP_SCO_PCM is also TRUE, then all SCO connections are routed through the built-in audio codec rather than though the normal PCM interface.

如果这一键值设置为 TRUE，并且如果 PSKEY_HOSTIO_MAP_SCO_PCM 键值也被设置为 TRUE，那么所有的 SCO 连接将在 built-in 音频解码器中发送胜于在通常的 PCM 界面发送。

(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_PCM_CVSD_TX_HI_FREQ_BOOST	0x01b1	uint16	0

Enables a high frequency emphasis filter used when transmitting voice samples over the radio using CVSD (only used when the host interface is the PCM interface).

使用 CVSD 在无线传输中传输声音信号时，一个高频显著滤波器将被允许使用。（只有在主设备界面是 PCM 界面时才被使用）。

A value of 0 disables the filter. Higher values provide increasing amounts of high frequency boost.

0 值使滤波器失效。较高值供应越开越多的高频启动。

Key Name	Key Number	Type	Default Setting
PSKEY_PCM_CVSD_RX_HI_FREQ_BOOST	0x01b2	uint16	0

Enables a high frequency emphasis filter used when receiving voice samples over the radio using CVSD (only used when the host interface is the PCM interface).

使用 CVSD 在无线传输中传输声音信号时，一个高频显著滤波器将被允许使用。（只有在主设备界面是 PCM 界面时才被使用）。

A value of 0 disables the filter. Higher values provide increasing amounts of high frequency boost.

0 值使滤波器失效。较高值供应越开越多的高频启动。

Key Name	Key Number	Type	Default Setting
PSKEY_PCM_CONFIG32	0x01b3	uint32	0x00800000

PSKEY_PCM_CONFIG is only used in BlueCore01b firmware. PSKEY_PCM_CONFIG32 is used in firmware for BlueCore-2 and later devices.

PSKEY_PCM_CONFIG 只被用在 **BlueCore01b** 固件。**PSKEY_PCM_CONFIG32** 用于 **BlueCore-2** 及其之后版本的固件。

The key's complex bit field value is described in the "BlueCore device data book" for each BlueCore device.

See PSKEY_PCM_LOW_JITTER_CONFIG for more PCM configuration options.

对每个蓝牙设备而言，这一键值的综合位含义在“蓝牙装置数据手册”中有所描述。

更多 **PCM** 结构选项见 **PSKEY_PCM_LOW_JITTER_CONFIG**

Key Name	Key Number	Type	Default Setting
PSKEY_USE_OLD_BCSP_LE	0x01b4	uint16	FALSE

If this pskey is set to FALSE then the firmware uses the BCSP Link Establishment protocol described in bcore-sp-008, otherwise it uses the older protocol described in bc01-s-010g.

如果这一键值被设置为 **FALSE**，那么固件使用 **BCSP** 连接指定协议。另外，他运用 **bc01-s-010g** 中更早的协议描述。

The new protocol only differs significantly from the old one in that:

新协议和久协议唯一的不同是：

- The "choke" is turned off when moving from "curious" to "garrulous".

当从“**curious**”到“**garrulous**”，“**choke**（阻气门）”是关闭的。

- The "cnf_cnt_limit" logic is removed; "conf" messages are continuously emitted in the "curious" state.

“**cnf_cnt_limi**”逻辑被移开，在**"curious"**状体啊**"conf"**信息不断的被发送。

It may be necessary to set this pskey to TRUE if the host has an old implementation of bcsp-le

如果主设备有一个古老的 **bcsp-le**，这一键值有可能需要被设置为 **TRUE**.

See the comment for PSKEY_BCSP_LM_CNF_CNT_LIMIT.

Key Name	Key Number	Type	Default Setting
PSKEY_PCM_CVSD_USE_NEW_FILTER	0x01b5	bool	FALSE

Versions of BlueCore2 starting with the first ROM version have a new version of the CVSD filter. This is on by default but may be disabled by setting this key to FALSE. The value is irrelevant for previous chip revisions, up to and including 0x89.

BlueCore2 种类以 **ROM** 形式为开端，拥有一个新的 **CVSD** 形式。默认值是 **on**，但是设置这一键值为 **FALSE** 可能使它丧失能力。在以前的芯片修订中这个值是未被提及的，达到并包括 **0x89**。

On BlueCore3 with internal flash, setting this to FALSE enables an even newer version of the CVSD filter. (Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

在 **BlueCore3** 内在的 **FLASH**，使 **CVSD** 滤波器拥有一个更新的值。

Key Name	Key Number	Type	Default Setting
PSKEY_PCM_FORMAT	0x01b6	uint16	0x006c

The data format used to send SCO data over the PCM port. The format is the same as for HCI_Write_Voice_Setting. The bottom two bits of this key (air format) are always ignored and should be set to zero. The air format specified with HCI_Write_Voice_Setting will be used instead.

在 **PCM** 端口发送 **SCO** 数据的数据格式。这个格式与 **HCI_Write_Voice_Setting** 的格式相同。这一键值的底部两位经常是被忽视的并且应该被设置为 **0. HCI_Write_Voice_Setting** 的空间格式将被旧的所代替。

The Bluetooth HCI spec mandates that devices boot up with 16 bit linear data format, unfortunately many PCM codecs do not expect this format so this key allows the HCI format to be overridden so that manufacturers can set it correctly for the hardware and application authors do not need to know the correct format.

蓝牙 **HCI** 规格要求，系统启动为 **16** 位线性数据格式。不幸的是很多 **PCM** 多媒体数据信号编解码器不认可这一形式，所以这一键值 **HCI** 形式越过，因此厂商可以设置硬件校正并请求创作者不需要了解正确的形式。

If this key is set to the magic value 0xffff then the format specified with HCI_Write_Voice_Settings will be used and hence the PCM format can be changed dynamically (this is almost never what you want).

如果这个键值设置为魔法般的 **0xffff**，那么被 **HCI_Write_Voice_Settings** 指定的形式将被使用，并且 **PCM** 形式将被有力的转变。（这从来不是你想要的）

On BlueCore2 all PCM streams get the same format.

在 **BlueCore2**，所有的 **PCM** 流拥有统一的格式。

On devices with an internal codec, if SCO data is routed to the internal codec then this key will be ignored and the correct value for the internal codec will be used.

在一个拥有多媒体数字信号编解码器的设备，如果 **SCO** 数据发送到内在的多媒体数字信号编解码器那么这一键值将被忽略，多媒体数字信号编解码器的修正值将被使用。

Key Name	Key Number	Type	Default Setting
PSKEY_CODEC_OUT_GAIN	0x01b7	uint16	0x0005

Sets the audio output gain when using the built-in codec.

当使用内置多媒体数字信号编解码器时设置音频输出增益。

On devices with a codec (except BlueCore2-External) this is: Bits [2:0] set the analogue gain (5 = unity gain) Bits [7:4] set the digital gain (0 = unity gain) Bits [9:8] set the sigma-delta gain (0 = nominal)

在拥有多媒体数字信号编解码器的设备（除了外部 **BlueCore2** 外）这是：【**2**：**0**】设置模拟增益（**5=**统一增益）**[7:4]**设置数字增益（**0=**统一增益）**[9:8]**设置 **sigma-delta**（**0=**默认值）

On BlueCore2-External, this is Bits [2:0] set the gain (7 = maximum gain)

在 **BlueCore2-External [2:0]**设置增益（**7=**增益最大值）

Key Name	Key Number	Type	Default Setting
PSKEY_CODEC_IN_GAIN	0x01b8	uint16	0x0008

Sets the audio input gain when using the built-in codec.

当使用内置多媒体数字信号编解码器时设置音频输入增益。

On devices with a codec (except BlueCore2-External) this is: Bits [3:0] set the analogue gain (8 = optimum noise) Bits [7:4] set the digital gain (0 = unity gain) Bit [8] enables scaling down of DAC outputs

在多媒体数字信号编解码器设备（除了外部 **BlueCore2** 外），这是：**[3:0]**设置模拟增益（**8=**最适合的噪音）**[7:4]**设置数字增益（**0=**统一增益）**[8]**缩小 **DAC** 输出比例。

On BlueCore2 External, the bits are Bits [3:0] set the gain (0xF = maximum)

在 **BlueCore2-External [2:0]**设置增益（**0xf=**增益最大值）

Key Name	Key Number	Type	Default Setting

PSKEY_CODEC_PIO	0x01b9	uint16	none
Sets the PIO pin to drive high when the built-in codec is enabled. This is typically used to bias the microphone input. 当内置多媒体数字信号编解码器被激活的情况下，设置驱动高电平 PIO 引脚。代表性的用于基本扩音输出。 A value of 15 enables the AUX_DAC instead of a PIO. 值设置为 15 使得 AUX_DAC 代替 PIO. When the key is not set, no PIO pin is enabled. 当这一键值没有设置时，没有 PIO 口被激活。			

Key Name	Key Number	Type	Default Setting
PSKEY_PCM_LOW_JITTER_CONFIG	0x01ba	uint32	0x00000000
Additional PCM configuration to support master mode with much reduced jitter on the clock. This is required to support certain external codec chips. 附加的 PCM 结构用以支持简化时钟跳动的主设备模式。对于支持某些外部多媒体数字信号编解码器这一键值是必须的。 Only useful for chips starting with BlueCore2-ROM. 只有在 BlueCore2-ROM 之后的芯片该键值才有作用。 See PSKEY_PCM_CONFIG32 for more PCM configuration options. 更多 PCM 结构选项见 PSKEY_PCM_CONFIG32			

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_SCO_PCM_THRESHOLDS	0x01bb	uint16[]	8, 20
Sets the upper and lower thresholds for the buffers used to hold SCO data flowing between air and the PCM port. 设置系统的磁盘缓存块的高低极限，用于支持 SCO 数据在空间和 PCM 端口的传输。 The thresholds are checked just before a packet is received from air and just after a packet is sent to air. 极限值在从空间接收一个数据包和发送一个数据包之间被检测。 If the data pending in the buffer exceeds the upper threshold when the level is checked, a sample is deleted from the buffer.If the pending data in the buffer drops below the lower threshold, a sample is inserted into the buffer. 当水平被检测时，如果缓冲器中正在审理的数据超过上极限，一个样本将在缓冲器中被删除。如果缓冲期中正在审核的数据低于下极限，一个样本将被插入到缓冲器。 The thresholds are held as a uint16[2]. The first value gives the lower threshold and the second value gives the upper threshold. 极限保持 uint16[2]，第一个值指示了低极限，第二个值指示了高极限。 This PS key has no effect on some versions of firmware. 这一 PS 键值对某些固件没有影响。			

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_SCO_HCI_THRESHOLDS	0x01bc	uint16[]	10, 80

Sets the upper and lower thresholds for the buffers used to hold SCO data flowing between air and the HCI.

设置系统的磁盘缓存块的高低极限，用于支持 SCO 数据在空间和 HCI 的传输。

The thresholds are checked just before a packet is received from air and just after a packet is sent to air.

极限值在从空间接收一个数据包和发送一个数据包之间被检测。

When the thresholds are exceeded, the firmware will insert or delete single samples or groups of samples to bring the amount of data pending in the buffer into range. The exact behaviour depends on whether the SCO data is in transparent format and which host transport is in use.

当极限值被超越，固件将插入或删除单一的样本或成组的样本使得数据总数在缓冲器的范围以内。精确的数据依赖于 SCO 数据是否在传输模式和哪个主设备在运行。

The thresholds are held as a uint16[2]. The first value gives the lower threshold and the second value gives the upper threshold.

极值保持 uint16[2]，第一个值给出了最低值，第二个值给出了最高值。

This PS key has no effect on some versions of firmware.

这一 PS 键值对某些固件没有影响。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_MAP_SCO_PCM_SLOT	0x01bd	uint16	0

When the pskey PSKEY_HOSTIO_MAP_SCO_PCM is TRUE, the first SCO channel opened is routed over the chip's PCM port. While this SCO channel is in place, all subsequent attempts to open extra SCO channels fail.

当 PSKEY_HOSTIO_MAP_SCO_PCM 键值是 TRUE，第一个被开启的 SCO 信道在 PCM 端口被发送。这一 SCO 信道在设定的位置，所有后续的打开额外 SCO 信道的努力都将失败。

The SCO channel is routed over the PCM timing frame slot defined by this pskey. This pskey's default value, zero, routes to "the first" PCM slot.

这一键值定义了 SCO 信道在 PCM 上发送的时隙。这一键值的默认值，0，发送“第一个”PCM 时隙。

The number of slots in the PCM port's timing frame depends on the value of PSKEY_PCM_CONFIG32; there's no point in setting PSKEY_HOSTIO_MAP_SCO_PCM_SLOT to 3, asking for SCO data to travel over the 4th slot in the PCM frame if the PCM channel's clock rate only supports a single slot per frame.

许多 PM 端口的时隙依赖于 PSKEY_PCM_CONFIG32 的值；如果 PCM 信道的时钟比率只支持一个单时隙结构，在设置 PSKEY_HOSTIO_MAP_SCO_PCM_SLOT 为 3 时它们没有要点，请求 SCO 数据在 PCM 固件的第四时隙传播。

(This pskey is available only in builds for BlueCore-2 and later chips. Functionality equivalent to this pskey is available in BlueCore01b builds using a bit field in PSKEY_PCM_CONFIG, a pskey absent from builds for BlueCore-2 and later chips.)

这一键值只在 BlueCore-2 及其之后的芯片使用。在 BlueCore01b PSKEY_PCM_CONFIG 与这一键值在功能性上等同，PSKEY_PCM_CONFIG 在 BlueCore-2 及其之后版本的芯片没有出现。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_BAUDRATE	0x01be	uint16	0x009d

The UART's (initial) Baud rate in builds from HCI 18.X. (This PS key's name is similar to PSKEY_UART_BAUD_RATE, used in firmware builds before HCI 18.X.)

HCI 18.X 结构的 UART 波特率。（这一键值的名称与 PSKEY_UART_BAUD_RATE 相似，用于 HCI 18.X 之前的固件结构）

A value of 0 has a special meaning which is to enable automatic detection of the UART baud rate from data sent by the host to the BlueCore following a chip reset. Note that this is designed for use with ROM devices; automatic detection of Baud rate does not work for the DFU upgrade procedure.

一个 0 值具有特殊的含义：随着芯片的复位，使得自动检测 UART 波特率从主机到蓝牙芯片的数据传送。注意，只是为使用 ROM 设备所设计的；波特率自动检测不为 DFU 升级程序工作。

When the system is configured to use a UART-based host transport, i.e. if PSKEY_HOST_INTERFACE selects BCSP, H4, H5 or User (VM access to the UART), then the UART's Baud rate is set to the value of this PS key when the firmware boots. The PS key's value is:

当系统被设置成为使用 UART-基础主机传送器，也就是。如果 PSKEY_HOST_INTERFACE 选择 BCSP,H4,H5 或者使用者（VM 有权使用 UART），那么当固件启动时 UART 的波特率被设置为之一键值。这一键值的值为：

Baud rate = pskey_value/0.004096 **（波特率计算公式）**

Some common values are: **一些普遍的值**

38k4 baud - 157 (0x009d)

57k6 baud - 236 (0x00ec)

115k2 baud - 472 (0x01d8)

230k4 baud - 944 (0x03b0)

460k8 baud - 1887 (0x075f)

921k6 baud - 3775 (0x0ebf)

1382k4 baud - 5662 (0x161e)

The maximum rated speed for the UART hardware is 1.5 Mbaud, although this key can be set to a higher value.

UART 硬件的最大额定速度为 1.5 Mbaud，尽管这一键值可以被设置为一个更高的值。

The BCCMD command "Config_UART" enables the host to set the UART to a different Baud rate after booting, but the change is lost when the firmware reboots.

BCCMD 命令"Config_UART"可以使主机在启动之后设置 UART 为不同的波特率，但是当固件重启时这些改变将消失。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG_BCSP	0x01bf	uint16	0x0806

If PSKEY_HOST_INTERFACE selects use of BCSP then the UART's configuration register is set to the value of this PS key when it boots.

如果 PSKEY_HOST_INTERFACE 选择使用 BCSP,那么当启动时 UART 的结构寄存器被设置为这一 PS 键值。

The UART configuration register is a bitfield:

UART 结构寄存器结构：

Bit Meaning

0 0 => one stop bit, 1 => two stop bits.

1 0 => no parity bits, 1 => one parity bit.

2 0 => odd parity, 1 => even parity.

3 0 => h/w flow control disabled, 1 => enabled.

4 Set to 0.
5 0 => RTS deasserted, 1 => RTS asserted.
6 Set to 0.
7 0 => non-BCSP/H5 operation disabled, 1 => enabled.
8 Set to 0.
9 Set to 0.
10 Set to 0.
11 Set to 1.
12 0 => H5 operation disabled, 1 => enabled.
13 Set to 0.
14 Set to 0.
15 Set to 0.

The default value, 0x0806, selects use of BCSP mode and even parity.

默认值为 0x0806，选择使用 BCSP 模式和 even parity

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG_H4	0x01c0	uint16	0x08a8

If PSKEY_HOST_INTERFACE selects use of H4 then the UART's configuration register is set to the value of this PS key when it boots.

如果 PSKEY_HOST_INTERFACE 选择使用 H4，那么那么当启动时 UART 的结构寄存器被设置为这一 PS 键值。

The UART configuration register is a bitfield and shares its format with PSKEY_UART_CONFIG_BCSP:

UATE 结构寄存器是一个位空间，并且是 PSKEY_UART_CONFIG_BCSP 的一部分。

Bit Meaning
0 0 => one stop bit, 1 => two stop bits.
1 0 => no parity bits, 1 => one parity bit.
2 0 => odd parity, 1 => even parity.
3 0 => h/w flow control disabled, 1 => enabled.
4 Set to 0.
5 0 => RTS deasserted, 1 => RTS asserted.
6 Set to 0.
7 0 => non-BCSP/H5 operation disabled, 1 => enabled.
8 Set to 0.
9 Set to 0.
10 Set to 0.
11 Set to 1.
12 0 => H5 operation disabled, 1 => enabled.
13 Set to 0.
14 Set to 0.
15 Set to 0.

The default value, 0x08a8, selects use of hardware flow control, as required by the H4 specification.

默认值 0x08a8，选择使用硬件流控制。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG_H5	0x01c1	uint16	0x1806

If PSKEY_HOST_INTERFACE selects use of H5 then the UART's configuration register is set to the value of this pskey when it boots.

如果 PSKEY_HOST_INTERFACE 选择使用 H5，那么那么当启动时 UART 的结构寄存器被设置为这一 PS 键值。

The UART configuration register is a bitfield:

Bit Meaning

0 0 => one stop bit, 1 => two stop bits.

1 0 => no parity bits, 1 => one parity bit.

2 0 => odd parity, 1 => even parity.

3 0 => h/w flow control disabled, 1 => enabled.

4 Set to 0.

5 0 => RTS deasserted, 1 => RTS asserted.

6 Set to 0.

7 0 => non-BCSP/H5 operation disabled, 1 => enabled.

8 Set to 0.

9 Set to 0.

10 Set to 0.

11 Set to 1.

12 0 => H5 operation disabled, 1 => enabled.

13 Set to 0.

14 Set to 0.

15 Set to 0.

(The "H5" host transport protocol is properly known as the "Three Wire Uart Transport Layer", but is commonly known as H5 within CSR.)

H5 主机传送协议被任务是"Three Wire Uart Transport Layer"，但是它被普遍的认为是 CSR 内部的 H5.

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG_USR	0x01c2	uint16	0x08a8

If PSKEY_HOST_INTERFACE selects use of VM access to the UART then the UART's configuration register is set to the value of this PS key when it boots.

如果 PSKEY_HOST_INTERFACE 选择使用 VM 有权使用 UART，那么那么当启动时 UART 的结构寄存器被设置为这一 PS 键值。

The UART configuration register is a bitfield:

Bit Meaning

0 0 => one stop bit, 1 => two stop bits.

1 0 => no parity bits, 1 => one parity bit.

2 0 => odd parity, 1 => even parity.

3 0 => h/w flow control disabled, 1 => enabled.

4 Set to 0.

5 0 => RTS deasserted, 1 => RTS asserted.

6 Set to 0.
7 0 => non-BCSP/H5 operation disabled, 1 => enabled.
8 Set to 0.
9 Set to 0.
10 Set to 0.
11 Set to 1.
12 0 => H5 operation disabled, 1 => enabled.
13 Set to 0.
14 Set to 0.
15 Set to 0.

The default value, 0x08a8, selects use of hardware flow control.

默认值为 0x0a08，选择使用硬件流控制。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_TX_CRCS	0x01c3	bool	TRUE

Determines whether CRCs are used in BCSP packets sent to the host.

确定 CRCs 是否被使用在 BCSP 数据包中发送到主设备。

This PS key is also used with H5.

这一键值也用于 H5。

(The "H5" host transport protocol is properly known as the "Three-Wire UART Transport Layer", but is commonly known as H5 within CSR.)

H5 主机传送协议被适当的认为是"Three-Wire UART Transport Layer"，但是一般被认为是 CSR 中的 H5.

Key Name	Key Number	Type	Default Setting
PSKEY_UART_ACK_TIMEOUT	0x01c4	uint16	250

When the firmware sends a reliable message over BCSP it starts a timer. The timer's period is the value of this pskey in milliseconds. If the host acknowledges reception of the message before the timer fires then the timer is cancelled. If the timer fires then the message is sent again and another timer started, etc.

当固件在 BCSP 出发点计时器上发出一个可靠的信息。计时器的周期为这一键值，单位是毫秒。如果主设备在计时器开启前承认接收信息，那么计时器被取消。如果计时器启动，那么信息将被再次发送并且另一个计时器开启，等等。

It is possible to limit the number of times a timer will be used for a given reliable BCSP message using PSKEY_UART_TX_MAX_ATTEMPTS.

限制计时器的数量，一个计时器将被用于使用 PSKEY_UART_TX_MAX_ATTEMPTS 给予可靠的 BCSP，是有可能的。

This pskey is also used with H5.

这一键值也被用于 H5。

(The "H5" host transport protocol is properly known as the "Three Wire Uart Transport Layer", but is commonly known as H5 within CSR.)

H5 主机传送协议被适当的认为是" Three Wire Uart Transport Layer "，但是一般被认为是 CSR 中的 H5.

Key Name	Key Number	Type	Default Setting

PSKEY_UART_TX_MAX_ATTEMPTS	0x01c5	uint16	0

The description of PSKEY_UART_ACK_TIMEOUT outlines BCSP's mechanism to retransmit reliable messages to the host until acknowledged.

PSKEY_UART_ACK_TIMEOUT 的说明描述了 BCSP 的机械装置转发可靠的信息到主设备。

The value of PSKEY_UART_TX_MAX_ATTEMPTS sets a limit on the number of times the send/timeout cycle will be attempted. Current (HCI 18.X) firmware will panic (and normally reboot) if this limit is reached.

PSKEY_UART_TX_MAX_ATTEMPTS 的值设置了一个时间数字的限制，发送/超时的周期将被试探。如果达到这一限度当前的硬件将混乱（并且正常重新启动）。

Messages are sent indefinitely if this pskey is set to zero, i.e., the value zero is treated as infinity.

如果这一键值被设置为 0，信息被不确定的发送，也就是说，0 值被处理为无限大。

This pskey is also used with H5.

这一键值也被用于 H5。

(The "H5" host transport protocol is properly known as the "Three Wire Uart Transport Layer", but is commonly known as H5 within CSR.)

H5 主机传送协议被适当的认为是" Three Wire Uart Transport Layer "，但是一般被认为是 CSR 中的 H5。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_TX_WINDOW_SIZE	0x01c6	uint16	4

The size of the sliding window used by BCSP.

用于 BCSP 的变化窗口的尺寸。

When the baseband sends a reliable BCSP message to the host then the host is required to acknowledge its reception. (If it is not acknowledged within a certain period the message is sent again.)

当基带发送一个可靠的 BCSP 信息到主设备，那么主设备要回复它的接收情况。（如果在某时段内未回复，消息将被再次发送）。

The baseband will send several packets to the host before waiting for the first of the bunch to be acknowledged. The maximum number of sent packets that can be unacknowledged at any time is set by this pskey.

This pskey is also used with the firmware's H5 driver.

在等待第一个被主机回复的信息之前，基带将发送到主机一些数据包。这一键值设置了可以不被答复的数据包的最大数量值。

(The "H5" host transport protocol is properly known as the "Three Wire Uart Transport Layer", but is commonly known as H5 within CSR.)

H5 主机传送协议被适当的认为是" Three Wire Uart Transport Layer "，但是一般被认为是 CSR 中的 H5。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_HOST_WAKE	0x01c7	uint16[]	4, 500, 10, 0

Configure the use of a wakeup signal by the BlueCore to wake the peer UART device from a low power state. The wakeup signal, which may be either a UART break condition or a pulse on a PIO line, is specified via a separate PS key, PSKEY_UART_HOST_WAKE_SIGNAL.

通过 BlueCore 配置唤醒信号的使用，用来将同等 UART 设备从低功耗状体唤醒。唤醒信号，可能是一个 UART 突变情况，或者是一个 PIO 连接上的脉冲信号，被指定经过一个单独的 PSkey，

PSKEY_UART_HOST_WAKE_SIGNAL

If this PS key's mechanism is turned on, the firmware judges when the peer may have entered its deep sleep state based on timers, and the local device can be set to emit a wakeup signal before sending data to the peer. Normally the length of the break condition is set to be sufficient to allow the peer to come fully awake as the local device will normally send a message to the peer afterwards.

如果这个 PSkey 的构造是开启，固件判断合适等同设备可能基于定时器已经进入深睡眠状态，本地是被将被设置在发射数据到同等设备前发出一个唤醒信号。通常情况下，打破环境的长度被设置的很充分以允许同等设备充分觉醒，在本地设备将通常发送信息到同等设备之后。

Most systems do not require the BlueCore to emit a wakeup signal to wake up the peer device. Systems using the BCSP transport, for example, support the host and baseband entering a deep sleep state, in which their UARTs are disabled. The devices may enter deep sleep when they choose, without warning that they are about to enter deep sleep and without signaling when they are in deep sleep. When one device wishes to send data to its peer it sends a message; the message can be lost (because the peer's UART may be turned off) but the presence of the message rouses the peer. For reliable BCSP channels the message is resent if it has not been acknowledged after a delay (set by PSKEY_UART_ACK_TIMEOUT), and the message normally gets through the second time, as the peer is then awake. This mechanism is entirely adequate for most systems, but using a host wakeup signal may reduce delay implied by PSKEY_UART_ACK_TIMEOUT.

大多数系统不要求 BlueCore 发射一个唤醒信号去唤醒同等设备。系统使用 BCSP 传输，例如，支持主设备和基带输入一个深睡眠状态，使它们的 UARTs 失效。当设备选定时它们将进入深睡眠状态，不会发出它们即将进入深睡眠状态的警告，也不会发出他们已经进入深睡眠状态的信息。当一个设备希望发送消息到它的同等设备，它将发送一条消息；这条消息可能被丢失（因为对等设备的 UART 可能已经关闭）但是出现的消息唤醒对等设备。在可靠的 BCSP 通道，如果信息在延迟后未被承认，它将再次被发送（通过 PSKEY_UART_ACK_TIMEOUT 设置）。信息经常通过第二个时间，那时对等设备已经苏醒。这一结构适合大多数系统，但是使用一个主设备唤醒信号可能减少 PSKEY_UART_ACK_TIMEOUT 延迟。

This use of wakeup signals by the BlueCore is turned off by default, as this suits most systems.

这用于 BlueCore 唤醒信号，默认是关闭的，它适用于大多数系统。

This PS key has four uint16 parameters:

这一键值为 4 位 uint16 参量：

Enable: Values: 1 => enable mechanism 结构使能
4 => disable mechanism 结构丧失能力

Sleep_Delay: Milliseconds after tx to host or rx from host, after which host will be assumed to have gone into its deep sleep state. (Range 1 -> 65535.)

睡眠延时：在 tx 到主机或 tx 从主机之后的毫秒，在主机被假装进入深睡眠状体之后。

Break_Length: Duration of wake signal in milliseconds. (Range 1 -> 1000.)

断裂长度：唤醒信号持续时间。

Pause_Length: Milliseconds between end of wake signal and sending data to the host. (Range 0 -> 1000.)

终止长度：唤醒信号终止和发送数据到主机。

Key Name	Key Number	Type	Default Setting
PSKEY_HOSTIO_THROTTLE_TIMEOUT	0x01c8	TIME	200 * MILLISECOND

This key modifies the behaviour of the BlueCore's host interface code. It should only be configured on advice from CSR.

这一键值修改蓝牙芯片主设备界面编码行为。只有在 **CSR** 公司的建议下才可以被配置。

PSKEY_NOTE_START If the scheduler is blocked by interrupts (for a time specified by PSKEY_SCHED_THROTTLE_TIMEOUT), execution of the hostio interrupt handlers is delayed to give the scheduler time to run. The maximum time for which these interrupt handlers can be delayed is specified by this PS key (in microseconds). PSKEY_NOTE_END

如果调度程序被中断打断（**PSKEY_SCHED_THROTTLE_TIMEOUT** 说明时间），主设备中断操作被延迟给予调度时间操作。这些中断寄存器可以被延时的最大时间用这一键值加以说明。

Key Name	Key Number	Type	Default Setting
PSKEY_PCM_ALWAYS_ENABLE	0x01c9	bool	FALSE

By default, the PCM port is only enabled when it is in use for audio. If this key is set to TRUE, the PCM port will be turned on when the chip boots and will remain on until reset. This has considerable implications for power consumption.

默认情况下，**PCM** 端口只有在用于音频时才被激活。如果这个键值设置为 **TRUE**，当芯片启动时 **PCM** 端口将被开启，并将在复位前一直保持开启状态。这对功率消耗有相当的影响。

(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_UART_HOST_WAKE_SIGNAL	0x01ca	uint16	0x0000

BlueCore can be configured to output a wakeup signal to the host prior to sending it data if it considers that the host may be in a low power state. PSKEY_UART_HOST_WAKE enables this wakeup signalling and specifies the various timers required. PSKEY_UART_HOST_WAKE_SIGNAL is used to specify the wakeup signal to use: this is a UART break signal, a pulse on a PIO line or, for the H4DS transport only, a repeated byte sequence.

如果考虑到主设备在低功耗状态，蓝牙核心可以被设置输出一个唤醒信号到主设备优先于发送它的数据。**PSKEY_UART_HOST_WAKE** 使这些唤醒信号能够发送并且指定不同的定时器请求。

PSKEY_UART_HOST_WAKE_SIGNAL 用于指定唤醒信号使用：这是一个 **UART** 中断信号，一个 **PIO** 线路上的脉冲信号，或者，只用于 **H4DS** 传输，一个重复的二进制次序。

This PS key's value is a bitfield, allocated as:

bits 0 to 3: Host Wake Mechanism. Values: 主机唤醒机制

0 - repeated byte sequence 重复二进制次序

1 - positive pulse on PIO **PIO** 上的正脉冲

2 - negative pulse on PIO **PIO** 上的负脉冲

3 - UART BREAK condition **UART BREAK** 形式

bits 4 to 7: PIO pin selection. Value selects PIO pin. **PIO** 引脚选择。值选择 **PIO** 引脚。

If the Host Wake Mechanism is 0x00, BlueCore will send a repeated byte sequence. The duration of the byte train is specified by PSKEY_H4DS_WAKE_DURATION. This mechanism is available for the H4DS transport only. The byte sequence has been chosen to work well with BlueCore's Baud rate detection capability.

如果主设备唤醒机制是 **0x00**，蓝牙核心将发送一个重复的二进制序列。**PSKEY_H4DS_WAKE_DURATION**

说明了二进制序列持续时间。这一机制只可用于 **H4DS** 传输。二进制序列被选择用于和蓝牙核心的波特率侦听性能良好配合。

If the Host Wake Mechanism is 0x01 then a positive pulse is signalled on the PIO pin selected by bits 4->7. (Value 0x0 in bits 4->7 selects PIO[0], value 0x01 selects PIO[1], etc.). The duration of the pulse is specified by PSKEY_H4DS_WAKE_DURATION for the H4DS transport and by PSKEY_UART_HOST_WAKE for all other host transports.

如果主设备唤醒机制为 0x01，那么一个正脉冲信号经由 4-7 位 PIO 引脚发出（4 到 7 位中的值 0x0.选择 PIO0,值 0x01 选择 PIO1,等等）。PSKEY_H4DS_WAKE_DURATION 指定脉冲持续时间用于 H4DS 传输和 PSKEY_UART_HOST_WAKE 指定脉冲持续时间用于其他主设备传输。

If the Host Wake Mechanism is 0x02 then a negative pulse is signalled on the PIO pin selected by bits 4->7. The duration of the pulse is specified by PSKEY_H4DS_WAKE_DURATION for the H4DS transport, and by PSKEY_UART_HOST_WAKE for all other host transports.

如果主设备唤醒机制是 0x02，那么一个负脉冲信号经由 4-7 位 PIO 引脚发出。

PSKEY_H4DS_WAKE_DURATION 指定脉冲持续时间用于 H4DS 传输和 PSKEY_UART_HOST_WAKE 指定脉冲持续时间用于其他主设备传输。

If the Host Wake Mechanism is 0x03 then a break condition is signalled by the UART. The duration of the break signal is specified by PSKEY_H4DS_WAKE_DURATION for the H4DS transport, and by PSKEY_UART_HOST_WAKE for all other host transports.

如果主设备唤醒机制是 0x03，那么 UART 发送一个中断情形信息。PSKEY_H4DS_WAKE_DURATION 指定脉冲持续时间用于 H4DS 传输和 PSKEY_UART_HOST_WAKE 指定脉冲持续时间用于其他主设备传输。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG_H4DS	0x01cb	uint16	0x08a8

If PSKEY_HOST_INTERFACE selects use of H4DS then the UART's configuration register is set to the value of this PS key when the system boots.

如果 PSKEY_HOST_INTERFACE 选择使用 H4DS，那么当系统启动时 UART 的结构寄存器将被设置为这一键值。

The UART configuration register is a bitfield:

Bit Meaning

0 0 => one stop bit, 1 => two stop bits.

1 0 => no parity bits, 1 => one parity bit.

2 0 => odd parity, 1 => even parity.

3 0 => h/w flow control disabled, 1 => enabled.

4 Set to 0.

5 0 => RTS deasserted, 1 => RTS asserted.

6 Set to 0.

7 0 => non-BCSP/H5 operation disabled, 1 => enabled.

8 Set to 0.

9 Set to 0.

10 Set to 0.

11 Set to 1.

12 0 => H5 operation disabled, 1 => enabled.

13 Set to 0.

14 Set to 0.

15 Set to 0.

The default value, 0x08a8, selects use of hardware flow control, as required by the H4 (sic) specification.

默认值 0x08a8，选择用于硬件流控制。

Key Name	Key Number	Type	Default Setting
PSKEY_H4DS_WAKE_DURATION	0x01cc	uint16	0x0020

The H4DS protocol requires BlueCore to wake the host if it believes the host may be asleep. The protocol requires that this is performed by sending a repeating byte sequence of sufficient duration to wake the host, to allow the host to initialise its UART, and to lock onto the byte train. The (minimum) duration of the byte sequence is configured with this pskey.

H4DS 协议要求如果相信主设备可能在睡眠状体啊，蓝牙核心唤醒主设备。协议规定通过发送一个充分周期的持续二进制序列完成这一过程，以唤醒主设备，允许主设备初始化它的 UART，锁定在字节长度。这一键值设定了二进制序列的最小持续时间。

The pskey's value is in milliseconds. The corresponding number of bytes in the wakeup signal is calculated using the value of PSKEY_UART_BAUDRATE.

键值单位是毫秒。相应的许多唤醒信号的二进制数据适当的运用 PSKEY_UART_BAUDRATE.中的值。

This pskey only has an effect when the H4DS host transport is in use, as configured with PSKEY_HOST_INTERFACE.

这一键值只有在 H4DS 主设备传输使用时才生效，在 PSKEY_HOST_INTERFACE.设定。

See PSKEY_UART_HOST_WAKE_SIGNAL.

Key Name	Key Number	Type	Default Setting
PSKEY_H4DS_MAXWU	0x01cd	uint16	50

The H4DS specification requires BlueCore to send Wake-Up messages to the host until the host responds. There's no point sending Wake-Up messages indefinitely if the peer fails to respond - it just wastes the BlueCore's power. (The host may not have been switched on, or perhaps the UART cable has not been plugged in.) Consequently, the H4DS specification provides a mechanism to limit the number of Wake-Up messages sent to the host in one batch. If the limit is reached, BlueCore stops sending Wake-Up messages until it hears (any) UART traffic from the host.

H4DS 说明指出 BlueCore 将发送唤醒信息到主设备直到主设备回应。没有指出如果同等设备未能回应发送唤醒信息是不确定的-它只是在浪费蓝牙核心的功率。(主设备可能未被开启或者或许 UART 电缆未被插入)。因此 H4DS 说明说规定了一个限定发送到主设备的一组信息的数量的机制。如果达到限制，蓝牙核心将停止发送唤醒信息直到听到 UART 从主设备传输。

This pskey sets the limit, "MAXWU" in the specification.

这一键值设置了限制，说明书中的"MAXWU"。

A value of zero is treated as infinity, i.e., the baseband does not stop sending Wake-Up messages when the host does not respond.

0 值被处理为无穷大，也就是说当主设备未回应时基带将不会停止发送唤醒信息。

Very small positive values (below 10) may cause problems.

非常小的值（低于 10）可能会引起故障。

Key Name	Key Number	Type	Default Setting
PSKEY_H4DS_LE_TIMER_PERIOD	0x01cf	uint16	250

The H4DS specification's Link Establishment engine uses a pair of timers with periods Tsync and Tconf. This pskey sets the duration of both timers. The pskey's value is in milliseconds.
H4DS 说明的 Link Establishment 引擎运用一对 Tsync 和 Tconf 计时器。这一键值设置两个计时器的持续时间。单位为毫秒。

Key Name	Key Number	Type	Default Setting
PSKEY_H4DS_TWU_TIMER_PERIOD	0x01d0	uint16	250

The H4DS specification's Deep Sleep engine uses a timer with period Twu to schedule the transmission of Wake-Up messages. This pskey sets the duration of the timer. The pskey's value is in milliseconds.
H4DS 说明的深睡眠引擎使用一个 TWU 计时器安排传播唤醒信息。这一键值设置计时器的持续时间。单位为毫秒。

Key Name	Key Number	Type	Default Setting
PSKEY_H4DS_UART_IDLE_TIMER_PERIOD	0x01d1	uint16	50

The H4DS specification requires a device to detect when the UART has become idle. The BlueCore implementation achieves this by running a timer with period Tuart_idle, the action function for which asks "has any traffic flowed since the timer was started?". If the answer is "no", the UART is considered to have become idle. This pskey sets the duration of the timer. The pskey's value is in milliseconds.
H4DS 说明要求一个装置用于发现 UART 被闲置。蓝牙核心执行运行一个 Tuart_idle 计时器以执行这一行为。功能函数问：“当计时器开始时，是否伴随着传输？”如果答案是“不”，UART 被认为是空闲。这一键值设置计时器的周期。单位为毫秒。

Key Name	Key Number	Type	Default Setting
PSKEY_PCM_SLAVE_PROVIDE_CLOCK	0x01e5	bool	FALSE

This key controls whether the BlueCore chip will provide the clock on the PCM bus when configured as PCM slave. PSKEY_PCM_LOW_JITTER_CONFIG must hold a valid setting for this key to have any effect.
这一键控制当配置 PCM 为从设备时，蓝牙核心芯片是否提供 PCM 通道时钟。
PSKEY_PCM_LOW_JITTER_CONFIG 必须为这一键值的使用保持一个正确的设置。

Key Name	Key Number	Type	Default Setting
PSKEY_ANA_FTRIM	0x01f6	uint16	0x1d

BlueCore uses a crystal as the basis of all of its accurate timing, notably radio frequency control, UART baud rate and precise event timing. Each real crystal oscillates at a slightly different frequency. This ps value trims the crystal to an optimal value.
蓝牙以一个晶振为其所有精准时机的基础，最显著的是无线电频率控制，UART 波特率和精准的事件时间。每个晶体振动在自己单独的频率。这一键值将晶体设置到最佳值。

This value must be set per crystal, i.e. it will need to be configured for each manufactured Bluetooth module.
这一值必须通过晶体被设置，也就是说，它需要被配置用于每个人造蓝牙单元。

Key Name	Key Number	Type	Default Setting
PSKEY_WD_TIMEOUT	0x01f7	TIME	5 * SECOND

BlueCore has hardware support to run a watchdog timer. This is a timer that is set to the value of this key every time it is "kicked" - written to by the firmware. If the firmware fails to kick the watchdog within this period the chip's watchdog hardware forces a hardware reset of the chip. This is to support the outlandish possibility that the chip's firmware might crash or hang up.
蓝牙核心拥有硬件支持运行看门狗时钟。这是一个即使时间“kicked”也会被设置为键值的计时器。-由硬件写入。如果硬件未在这一时间内 **kick** 看门狗，芯片的看门狗硬件强迫一个芯片的硬件复位。这用于支持特殊的可能性，芯片的硬件可能破坏或挂起。
The value is in microseconds. If the value is zero the watchdog is disabled.
单位为毫秒。如果值是 **0** 则看门狗失效。
See the description of PSKEY_WD_PERIOD.
见 **PSKEY_WD_PERIOD** 描述。
(Type TIME is fundamentally a uint32. Value SECOND is 1000000.)

Key Name	Key Number	Type	Default Setting
PSKEY_WD_PERIOD	0x01f8	TIME	3 * SECOND

Set the watchdog period - (nominally) the microseconds between kicking the watchdog hardware.
设置看门狗时段-通常的，毫秒在 **KICK** 看门狗硬件之间。
This should be no more than 70% of PSKEY_WD_TIMEOUT (unless the timeout value is zero).
它不能超过 **PSKEY_WD_TIMEOUT** 的 **70%**。
(Type TIME is fundamentally a uint32. Value SECOND is 1000000.)

Key Name	Key Number	Type	Default Setting
PSKEY_HOST_INTERFACE	0x01f9	phys_bus	phys_bus_bcsp

Select the physical connection that is used to pass information to and from the host - BCSP, H4, USB, etc. Only one of these can be used at a time, not least because the USB interface uses some of the same chip pins as the UART.
挑选规律的连接用于从向主机传送或从主机接受信息-**BCSP,H4,USB**,等等。他们中每次只能有一个被使用，特别是因为 **USB** 接口使用一些相同的 **UART** 芯片引脚.
Much of the chip's support for BCSP/H5 is performed by hardware - this allows interrupt routines to deal with complete BCSP/H5 packets. When the chip uses its UART in a more naive fashion, e.g., for H4, this support must be disabled. The UART's hardware support for BCSP/H5 must be enabled via PSKEY_UART_CONFIG_BCSP/H5.
大多数芯片对 **BCSP/H5** 的支持由硬件执行-这允许打破惯例处理完整的 **BCSO/H5** 数据包。当芯片使用它的 **UART** 在一个更加轻信的方式，对于 **H4**，这个支持必须丧失能力。**UART** 的硬件支持 **BCSP/H5** 必须被 **PSKEY_UART_CONFIG_BCSP/H5** 激活。
The H4 specification requires the use of UART hardware flow control and no use of parity. These must

also be set via PSKEY_UART_CONFIG_H4.
H4 说明书指出 UART 硬件流控制的用处和无用。这也必须被 PSKEY_UART_CONFIG_H4 激活。
Type phys_bus is really a uint16. The pskey takes values:

0 - No chip to host connection 没有芯片到主设备连接。
1 - BCSP
2 - H2 - USB
3 - H4 - UART
4 - VM access to the UART **VM 有权使用 UART**
6 - H5
7 - H4DS

(The "H5" host transport protocol is properly known as the "Three Wire Uart Transport Layer", but is commonly known as H5 within CSR.)
(H5 主设备发送协议正确的被认为是"Three Wire Uart Transport Layer"，但一般的认为是 CSR 中的 H5)

Key Name	Key Number	Type	Default Setting
PSKEY_HQ_HOST_TIMEOUT	0x01fb	TIME	5 * SECOND

Each HQ message sent to the host should provoke a corresponding reply from the host. This ps key sets the period in microseconds for which the hq task waits before giving up waiting for the reply.
每个发送到主设备的 HQ 信息需要引起一个主设备的相应回答。这一键值设置在放弃等待回复之前 HQ 任务等待的时间段。
See PSKEY_HQ_ACTIVE.
(Type TIME is fundamentally a uint32. Value SECOND is 1000000.)

Key Name	Key Number	Type	Default Setting
PSKEY_HQ_ACTIVE	0x01fc	bool	TRUE

The chip's hq (host query) task can send messages to the host over either BCSP channel 3 or tunnelled through the CSR manufacturer specific HCI extensions. The channel's protocol has an rpc-style structure, which means each message should cause the host to send a corresponding response back to the chip. The protocol is described in CSR document bc01-sp-042.
芯片的 HQ 任务可以在任何一个 BCSP 信道 3 上或者 CSR 制造商规定的 HCI 扩充部分发送信息。信道协议有一个 rpc-style 构造，意味着每个信息需要使主设备发送一个相应的回应到芯片。在 CSR 文献 bc01-sp-042 描述了协议。
If this pskey is set to FALSE then the chip's hq task is configured so that no HQ traffic is sent to the host.
See PSKEY_HQ_HOST_TIMEOUT.
如果这个键值设置为 RALSE 那么芯片的 HQ 任务被配置，那么没有 HQ 传输发送到主设备。
(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_BCCMD_SECURITY_ACTIVE	0x01fd	bool	FALSE

The firmware's bccmd task presents a command interpreter to the host in a manner similar to HCI. The command interpreter's command set is not part of any Bluetooth standard - it is specific to the BlueCore chips and firmware. The command set is used for such things as monitoring and controlling the chip,

running radio tests, etc.

固件的 **bccmd** 任务出现一个到主设备的命令解释程序，在一定程度上与 **HCI** 类似。命令解释程序的智慧系统不是任何蓝牙规范的一部分-这在蓝牙核心芯片和固件是明确的。指挥系统用于监控和控制芯片，运行无线测试等等一类的事情。

The command interpreter is accessed via the BCCMD protocol. This can run over a BCSP channel, over a CSR manufacturer-specific HCI extension channel or over the chip's SPI interface.

命令解释程序通过了 **BCCMD** 协议。它可以在 **BCSP** 信道上， **CSR** 制造商明确的 **HCI** 延展信道或者在芯片的 **SPI** 接口上运行。

The bccmd task provides a simple access control mechanism for BCCMD commands presented over BCSP or HCI-extension; this mechanism is not present for SPI access.

Bccmd 任务为在 **BCSP** 或 **HCI** 延展上出现的 **BCCMD** 命令提供一个简单的使用控制机构；这一构造不出现在 **SPI** 接口。

This pskey enables the security mechanism.

这一键值使安全机制使能。

When a BlueCore module is freshly manufactured this bool flag is set FALSE. The host may then read and write all ps values and can run all of the BCCMD commands. This allows the manufacturer to configure the Bluetooth module.

当一个蓝牙核心单元刚刚被制作，这一标志设置为 **FALSE.**主设备可能接着读写所有的 **PS** 值并且运行所有的 **BCCMD** 命令。这允许制造商配置蓝牙单元。

When the configuration is complete the manufacturer sets this pskey to TRUE. This enables the ps and bccmd access controls. Once set TRUE this key cannot be set back to FALSE via BCSP running over BCSP or the HCI extension channel. Setting security active is thus normally a one-way operation.

当构造完整，制造商设置这一键值为 **TRUE**。这使得 **ps** 和 **bccmd** 存取控制使能。一旦设置为 **TRUE**，不能通过运行在 **BCSP** 上的 **BCSP** 或 **HCI** 延展信道设置为 **FALSE.**设置安全主动通常是单方向的。

(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_ANA_FREQ	0x01fe	uint16	26000

Configures the BlueCore hardware to work with a particular reference clock frequency.

配置蓝牙核心固件与一个特殊的参考时钟频率一同工作。

For chips prior to BlueCore2-ROM the default, 4, configures the chip to use a 16 MHz reference. The value defines a reference frequency of n*250 kHz where n is an integer, but there is a pseudo-random mapping from n to the required value. This is covered in supporting documentation.

在 **BlueCore2-ROM** 之前的芯片默认，**4**，配置芯片使用 **16MH** 在。这个值规定了 **n*250 kHz** 参考频率，**n** 是一个整数。但是从 **n** 到待定值有一个伪随机的映射。见附表。

For BlueCore2-ROM and subsequent chips, the value defines the reference frequency in units of 1 kHz. The default value, 26000, configures the chip to use a 26 MHz reference. If the key is absent or the value is zero, the chip will attempt to pick a frequency; this cannot be relied upon to be the correct frequency, so the radio will not be usable.

BlueCore2-ROM 和之后的芯片，默认的参考频率为 **1KHz**。默认值，**26000**，配置芯片使用 **26MHz**。如果没有键值或者为 **0**，芯片将尝试挑选一个频率，这不能被依赖为正确频率。所以，无线是不可用的。

The automatic clock frequency detection mechanism is likely to be most useful in ROM parts, and is further described in bcore-me-014.

自然时钟频率最可能用于 **ROM** 某处。更多描述见 **bcore-me-014**。
See also the description of PSKEY_ANA_FTRIM.

Key Name	Key Number	Type	Default Setting
PSKEY_PIO_PROTECT_MASK	0x0202	uint16	0

The chip's PIO port can function as a general purpose input and output port. However, various optional hardware and software configurations require some PIO pins for their own needs, e.g., an optional external PA/LNA block is driven using PIO pins 0 and 1.

芯片的 PIO 端口可以承担输入输出端口的作用。但是，不同的可选择的硬件或软件为了自己的需要设置 PIO 端口，也就是说一个可选的 PA/LNA 用 PIO 端口的 0 或者 1 驱动。

This pskey prevents applications changing PIO pins that are required for lower level functions. This blocking action applies to host-based applications requesting PIO changes via BCCMD and to VM applications running on the chip.

这一键值为低电平模式阻止改变 PIO 端口。这一阻止功能应用于主设备-基于经过 BCCMD 上的应用请求 PIO 变化和芯片运行的 VM 请求。

Bits 0 to 7 of this uint16 pskey map to PIO0 to PIO7 respectively. If a bit of the pskey's value is set high then application code cannot change the value of the corresponding PIO port pin.

uint16 的 0 到 7 分别对应 PIO0 到 PIO7。如果一位 pskey 的值设置高于应用编码，则不能改变相应的 PIO 端口值。

From build HCI 13.2 the firmware auto-generates the protection bitmask from other pskey settings. (E.g., if PSKEY_USB_PIO_DETACH claims the use of PIO[5] then this bit cannot be changed by application code.) The auto-generated bitmask is ORed with this pskey's value to derive the working protection bitmask. At the time of writing this comment the auto-generated bitmask is derived from pskeys PSKEY_TXRX_PIO_CONTROL, PSKEY_USB_PIO_VBUS, PSKEY_USB_PIO_DETACH, PSKEY_USB_PIO_PULLUP, PSKEY_USB_PIO_WAKEUP, PSKEY_USB_PIO_RESUME and PSKEY_MKT_TASK_ACTIVE.

从 HCI13.2 构造起通过设置其他 oskey 固件自身-产生防护罩。（也就是说：如果 PSKEY_USB_PIO_DETACH 要求使用 PIO[5]那么这一位不能被申请编码改变。）这一 pskey 值自身产生位掩模是 ORed 源于工作保护掩模。

在写这一段解释时，自生成掩模源于 PSKEY_TXRX_PIO_CONTROL, PSKEY_USB_PIO_VBUS, PSKEY_USB_PIO_DETACH, PSKEY_USB_PIO_PULLUP, PSKEY_USB_PIO_WAKEUP, PSKEY_USB_PIO_RESUME and PSKEY_MKT_TASK_ACTIVE.

For earlier builds, the following gives some indication of which bits need to be set.

在更早的结构中，以下给出了一些需要被设置的位。

The value 0x03 suits Casira as this has an external PA/LNA.

0x03 适用于 Casira，它有一个外部的 PA/LNA。

On the current Casira motherboard, PIO2 is connected USB+ via a 1k5 resistor. The USB+ pin doubles as the UART RTS line on BlueCore, so care must be taken if an application uses PIO2.

在现有的 Casira 底板，PIO2 经过一个 1k5 的电阻连接到 USB+。USB+在蓝牙核心起到 UART RTS 的作用，因此如果有一个 PIO2 的申请则必须被关注。

If Casira is configured to use USB then extra pins should be added to this mask as the USB interface can take between 2 and 4 of the PIO pins. (See PSKEY_USB_PIO_WAKEUP, PSKEY_USB_PIO_DETACH, PSKEY_USB_PIO_PULLUP, PSKEY_USB_PIO_VBUS and PSKEY_MKT_TASK_ACTIVE.)

如果 Casira 被设定为 USB，那么必须增加额外的引脚，使得 USB 接口可以使用 PIO2 到 PIO4 引脚。（见 See PSKEY_USB_PIO_WAKEUP, PSKEY_USB_PIO_DETACH, PSKEY_USB_PIO_PULLUP, PSKEY_USB_PIO_VBUS and PSKEY_MKT_TASK_ACTIVE.）

Key Name	Key Number	Type	Default Setting
PSKEY_PMALLOC_SIZES	0x0203	uint16[]	

The pmalloc pool memory manager is used throughout the firmware. The way in which its raw RAM block is fragmented is specified by this pskey. The value is an array of pairs of uint16s: {uint16 el_size, uint16 n_elements}. Each pair describes a pool containing n_elements each of size el_size. The array must be terminated with {0, 0}.

The total number of pools must not exceed MAX_POOLS, defined in pmalloc.h. (At the time of writing this comment the value is 20.)

The size of the raw RAM block is TOTAL_POOL_SIZE uint16s, defined in xpmalloc.c, so this depends on the firmware build. How this is carved up is a complex issue - the bulk of the block will normally be fragmented according to the value of this pskey, but the start of the block is used to hold pool management information - pool control blocks. The size of this management information depends on the number of pools and whether pmalloc debugging information is being maintained - at the time of writing this comment it takes 7 uint16s per pool. This may typically take 10% of the total, so very crudely, sum(el_size*n_elements) <= (0.9 * TOTAL_POOL_SIZE).

If the definition of how the memory should be used exceeds the capacity of TOTAL_POOL_SIZE then the allocation is simply truncated. Typically the last pool in the array ends up with fewer elements than requested. The array does not have to be in size order, so it may make sense for the last element in the list to define a pool whose size may be flexible. Also the memory is most efficiently used if this last pool has a small el_size.

The pskey's default value is taken from C #include file ps_pools.h. The include file is derived from file pools.cfg during compilation.

Key Name	Key Number	Type	Default Setting
PSKEY_UART_BAUD_RATE	0x0204	uint16	none

The UART's (initial) Baud rate in builds before HCI 18.X. (This PS key's name is similar to PSKEY_UART_BAUDRATE, used in builds from HCI 18.X.)

在 HCI 18.X 以前的版本的 UART 的波特率。（这一 PS 键的名称与 PSKEY_UART_BAUDRATE 相似，从 HCI 18.X 版本开始使用）

Set the chip's UART baud rate at boot time to: 在启动时设置芯片的 UART 波特率到：

baud_rate = ps_value/0.004096

Some common baud_rate values:

38k4 baud - 157 (0x009d)

115k2 baud - 472 (0x01d8)

A BCCMD command allows the baud rate to be changed instantly but this presents the problem that if the command succeeds then notification of the command's behaviour will be sent at the new rate, and if it fails it will be sent at the old rate. The preferred method is to change this PS key then to reboot the chip.

一个 BCCMD 命令允许波特率被马上改变，但是出现了问题：如果如果命令成功那么命令的行为通知将被

在新的比率发送，如果失败，将在旧的比率发送。首选的方法是改变这一键值然后重新启动芯片。
Although this key can be set higher, the maximum rated speed for the UART hardware is 1.5 Mbaud.
虽然这一键值可以被设置的更高，**UART** 硬件的最大额定速率为 **1.5 Mbaud**。
This is a presentation PS key. PSKEY_HOSTIO_UART_PS_BLOCK is the real data store, but this key should be used to access it.
这是一个报告 **PS key** 值。 **PSKEY_HOSTIO_UART_PS_BLOCK** 是真正的数据储存，但是需要用这一键值进行存取。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG	0x0205	uint16	none

Configures the settings of the chip's UART port.
配置芯片的 **UART** 端口。

Bit Meaning
0 0 => one stop bit, 1 => two stop bits. 一个停止位 两个停止位
1 0 => no parity bits, 1 => one parity bit. 无校验位 **1** 校验位
2 0 => odd parity, 1 => even parity. 奇校验 偶校验
3 0 => h/w flow control disabled, 1 => enabled. 丧失流控制 使能
4 Set to 0.
5 0 => RTS deasserted, 1 => RTS asserted.
6 Set to 0.
7 0 => non-BCSP/H5 operation disabled, 1 => enabled.
8 Set to 0.
9 Set to 0.
10 Set to 0.
11 Set to 1.
12 0 => H5 operation disabled, 1 => enabled.
13 Set to 0.
14 Set to 0.
15 Set to 0.

This is a presentation PS key. PSKEY_HOSTIO_UART_PS_BLOCK is the real data store, but this key should be used to access it.
这是一个显示 **PS key**。**PSKEY_HOSTIO_UART_PS_BLOCK** 是真正的数据存储。但是需要用这一键值进行存取。
This bitfield should be set to 0x0006 for BCSP and 0x00a8 for H4. PSKEY_HOST_INTERFACE must also be set appropriately.
这一位区域需要为 **BCSP** 设置为 **0x0006** 和为 **H4** 设置为 **0x00a8.** **PSKEY_HOST_INTERFACE** 也必须被适当的设置。

Key Name	Key Number	Type	Default Setting
PSKEY_STUB	0x0207	uint16	0

A key that can be harmlessly read or written.
一个可以被无恶意读写的键值。

Key Name	Key Number	Type	Default Setting
PSKEY_TXRX_PIO_CONTROL	0x0209	uint16	0

The chip contains a radio power amplifier (PA) and low noise amplifier (LNA), allowing it to act as a limited-range Bluetooth device. Although this is adequate for many applications, some systems require more range and so use external PA/LNA devices.

芯片包含一个无限功率放大器（**PA**）和低噪声放大器（**LNA**）,起到蓝牙设备规范范围的作用。虽然这适合很多应用，一些系统命令使用更多的排列，因此运用外部 **PA/LNA** 设备。

If external devices are used the LNA is enabled by pin PIO0 and the PA by pin PIO1, i.e., this takes over two pins of the PIO port.

如果被用于 **LNA** 的外部设备被 **PIO0** 激活，并且 **PA** 被 **PIO1** 激活，也就是说，它占用了两个以上的 **PIO** 端口。

Before transmitting, the chip normally ramps up the power to the internal PA, then it ramps it down again afterwards. However, if a suitable external PA is used it may be possible to ramp the power externally using the AUX_DAC pin.

在发送之前，芯片通常提高内部 **PA** 功率，然后在降低。如果使用一个适当的外部 **PA**，很可能利用 **AUX_DAC** 引脚改变外部功率。

This pskey sets the PA/LNA configuration:

这一键值设置 **PA/LNA** 结构：

0: The two PIO lines are not driven for Tx and Rx. The chip's internal PA/LNA is used.

两个 **PIO** 连接不受 **Tx** 和 **Rx** 驱动，使用芯片的内部 **PA/LNA**。

1: The two PIO lines are driven high to enable the external PA and LNA. Tx power ramping is controlled by the internal PA.

两个 **PIO** 连接设置为高使外部 **PA** 和 **LNA** 使能。内部 **PA** 控制 **Tx** 功率的改变。

2: The two PIO lines are driven high to enable the external PA and LNA. Tx power ramping is controlled on the external PA via the chip's AUX_DAC pin. The "external_pa" entries in PSKEY_POWER_TABLE are used.

两个 **PIO** 连接设置为高使外部 **PA** 和 **LNA** 使能。**Tx** 功率在芯片的 **AUX_DAC** 端口的外部 **PA** 上是受控的。**PSKEY_POWER_TABLE** 的**"external_pa"**被使用。

3: The two PIO lines are driven low to enable the external PA and LNA. Tx power ramping is controlled by the internal PA.

两个 **PIO** 连接设置为低使外部 **PA** 和 **LNA** 使能。内部 **PA** 控制 **Tx** 功率的改变。

4: PIO lines driven high for external PA and LNA;

Tx power ramping controlled by internal PA. External PA controlled (not ramped) by chip's AUX_DAC pin. The "external_pa" entries in PSKEY_POWER_TABLE are used.

外部 **PA** 和 **LNA** 驱动 **PIO** 连接为高；**Tx** 功率受内部 **PA** 控制。外部 **PA** 受芯片的 **AUX_DAC** 引脚控制。**PSKEY_POWER_TABLE** 的**"external_pa"**被使用。

5: PIO lines driven high for external PA and LNA; Tx power ramping controlled by internal PA. External LNA gain controlled by chip's AUX_DAC pin. The AUX_DAC is varied by the AGC between zero and its maximum in 16 steps.

外部 **PA** 和 **LNA** 驱动 **PIO** 连接为高；**Tx** 功率受内部 **PA** 控制。芯片 **AUX_DAC** 控制外部 **LNA** 增益。在 **0** 和最大值的 **16** 个阶段，**AGC** 的 **AUX_DAC** 是不同的。

Hardware restrictions prevent the use of active low PIO pins and external PA ramping.

硬件约束活动低电平 **PIO** 引脚的使用和外部 **PA** 变化。
The behaviour of the chip's AUX_DAC pin is undefined unless this key is set to 2 or 4.
直到这一键值被设置为 **2** 或者 **4**，芯片 **AUX_DAC** 引脚的行为是不确定的。
See also:

PSKEY_LC_MAX_TX_POWER
PSKEY_TX_GAIN_RAMP
PSKEY_LC_POWER_TABLE
PSKEY_LC_DEFAULT_TX_POWER.

Key Name	Key Number	Type	Default Setting
PSKEY_ANA_RX_LEVEL	0x020b	uint16	8

Sets the initial value of the chip's $ANA_RX_LVL register.
设置芯片的 **ANA_RX_LVL** 寄存器初始值。
(This is for CSR internal use only. If you don't know what it's for, don't play with it.)
这只在 **CSR** 内部使用，如果不知道这一键值用途，请不要修改。

Key Name	Key Number	Type	Default Setting
PSKEY_ANA_RX_FTRIM	0x020c	uint16	0x844

Sets the initial value of the chip's $ANA_RX_FTRIM register.
设置芯片的 **ANA_RX_FTRIM** 寄存器初始值。
(This is for CSR internal use only. If you don't know what it's for, don't play with it.)
这只在 **CSR** 内部使用，如果不知道这一键值用途，请不要修改。

Key Name	Key Number	Type	Default Setting
PSKEY_PSBC_DATA_VERSION	0x020d	uint16	

The RCS minor version number of the source file psbc_data, which defines all of the keys on BlueCore.
RCS psbc_data 源文件的辅助版本号，定义所有蓝牙核心的键值。

Key Name	Key Number	Type	Default Setting
PSKEY_PCM0_ATTENUATION	0x020f	uint16	3

Some Motorola CODECs allow their gain to be controlled by 3 extra bits received at the end of a 13 bit PCM sample.
一些摩托罗拉多媒体数字编码器允许它们增加被 **13** 位 **PCM** 样本末尾的 **3** 个额外位所控制。
This pskey sets the value of these three bits for SCO data sent from chip's first PCM channel (PCM channel 0). It is expected that low values will map to high volume levels, though the firmware has no knowledge of this - it just passes the bits into the PCM stream. If this value is not needed then it may make sense to set this key to zero.
这一键值设置这三个从芯片第一个 **PCM** 信道发送的 **SCO** 数据的值。（**PCM0** 信道）。它被期望低值映射到高音量水平，虽然固件没有这一知识-它只是发送位信息到 **PCM** 流内部。如果这一值是不必要的，那么需要设置这一键值为 **0**。

It is possible that the firmware will acquire dynamically-settable attenuation controls for the PCM channel(s). In this case this pskey will set the initial attenuation value.
固件将有可能得到 PCM 信道的动力-设置表衰变控制。既然如此，这一键值将设置衰变的原始值。

Key Name	Key Number	Type	Default Setting
PSKEY_LO_LVL_MAX	0x0211	uint16	9

This key sets the maximum value of the LO_LVL parameter used by the local oscillator level auto calibration routine.
这一键值设置 LO_LVL 参量的最大值，用于本机振荡器水平标准程序。
See PSKEY_LO_LVL_MIN.

Key Name	Key Number	Type	Default Setting
PSKEY_LO_ADC_AMPL_MIN	0x0212	uint16	42

Parameter for the LO level auto calibration routine.
LO 水平标准程序参量。
The LO level is controlled to maintain the LO amplitude as measured on the internal ADC within the range specified by PSKEY_LO_ADC_AMPL_MIN and PSKEY_LO_ADC_AMPL_MAX subject to the limits given in PSKEY_LO_LVL_MIN and PSKEY_LO_LVL_MAX.

Key Name	Key Number	Type	Default Setting
PSKEY_LO_ADC_AMPL_MAX	0x0213	uint16	46

See PSKEY_LO_ADC_AMPL_MIN.

Key Name	Key Number	Type	Default Setting
PSKEY_IQ_TRIM_CHANNEL	0x0214	uint16	44

Sets the Bluetooth radio channel on which to perform IQ trim auto calibration. For most of the world this can be in the range 0..78, for France it must be in the range 54..76. If the value in this key is out of range for France and the firmware detects that it is in France (by using the country code) then the value will be silently brought into range.
设置完成 IQ 整理校准的蓝牙无线点信道。在大多数领域它在 0 到 78 范围内，在法国必须在 54 到 76 范围内。如果这一键值超出了法国的范围，同时固件发现在法国区域（通过使用国家代码）那么该值将悄悄的被修改到范围以内。

Key Name	Key Number	Type	Default Setting
PSKEY_IQ_TRIM_GAIN	0x0215	uint16	0x038

Internal PA gain setting at which to perform IQ trim auto-calibration. If the pskey value is higher than the maximum level in the power table (see PSKEY_LC_POWER_TABLE) the firmware will silently limit it to the power table's maximum internal PA setting.
执行 IQ 校准整理的内在 PA 增益设置。如果 pskey 值高于功率表的最大水平（见 PSKEY_LC_POWER_TABLE）固件将默认将其设置为功率表的内部 PA 最大值。

Bits [11:8] set the transmitter pre-amplifier gain while bits [7:0] set the maximum allowed power amplifier gain (but a lower value may be used).
[11:8]设置发送装置前置放大器增益，[7:0]设置最大允许功率放大器增益（但是可能使用较低的值）

Key Name	Key Number	Type	Default Setting
PSKEY_TX_OFFSET_HALF_MHZ	0x0217	int16	-2

Frequency offset used for transmit, in units of 500 kHz.
用于传输的频率偏置，单位为 500 kHz.
For BC5+ it controls only the basic rate Class 2 transmit offset
在 BC5+它只控制 CLASS2 传输偏移量的基础数据。
This key should only be changed on advice from CSR.
这一键值只有在 CSR 的建议下才可以被修改。

Key Name	Key Number	Type	Default Setting
PSKEY_GBL_MISC_ENABLES	0x0221	uint16	0x818

This allows settings for various bits in the chip's $GBL_MISC_ENABLES register to be selected. It allows the MISC_XAP_SUSPEND_ON_RX_EN, MISC_TRISTATE_DRIVE_EN, MISC_SPI_STOP_OUT_EN and MISC_EXT_RAM_EN bits (bits 0, 3, 4 and 7 respectively) to be selected. The bits are written as the value of the corresponding bits in this pskey; the other bits in this pskey's value are ignored.
The default setting does not suspend the XAP on Rx, enables the tristate drive and SPI stop output signal, and does not enable external RAM.
允许在芯片的$GBL_MISC_ENABLES 寄存器内设置不同的位用于挑选。它允许 MISC_XAP_SUSPEND_ON_RX_EN, MISC_TRISTATE_DRIVE_EN, MISC_SPI_STOP_OUT_EN and MISC_EXT_RAM_EN 位（分别对应 0，3，4，7）被挑选。位在这一键值中写入相应的值；键值中的其它位是被忽视的。默认设置不延缓 Px 上的 XAP，使能三态驱动和 SPI 停止输出信号，不使能外部 RAM.
(Setting 0x08 disables the SPI MISO line.)
设置 0x08 使 SPI MISO 连接失效。
This is for CSR internal use only. Don't play with it unless you know what it does.
只在 CSR 内部使用。在不知道作用的情况下不要修改。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_SLEEP_TIMEOUT	0x0222	uint16	1000

Applies when the host interface is BCSP, TWUTL or VM access to the UART, and depends on the key PSKEY_DEEP_SLEEP_STATE being set to allow deep sleep. If we have had no transmission from the host for at least this number of milliseconds, and we have no data to send, then we may go into deep sleep, depending on restrictions from any other source. Setting the value to 0 inhibits deep sleep for BCSP, TWUTL or VM UART access, but has no effect if another host interface is in use.
The default BCSP/TWUTL retransmit period is 0.25 seconds, so setting this value less than that, but non-zero, is probably a bad idea.
当主机界面是 BCSP 时应用。TWUTL 和 VM 有权使用 UART，并且依赖于 PSKEY_DEEP_SLEEP_STATE 键被设置允许深睡眠状态。如果我们不能从主机传送至少这一数值的毫秒数，并且我们没有数据发送，那么我们可能进入深睡眠状态，依赖于其它来源的约束。设置这一值为 0 约束 BCSP 的深睡眠状态，TWUTL

或 VM 存取，但是如果使用另一个主设备界面则不生效。默认 BCSP/TWUTL 传播周期是 0.25 秒，所以设置这一值小于 0.25，但是非零，或许是一个不好的主意。

With BCSP or TWUTL, any data on the UART will wake the chip from deep sleep. However the particular transmission that woke it will be lost. The chip will wake up about 5ms later.

在 BCSP 或 TWUTL，任何在 UART 上的数据将唤醒深睡眠状态中的芯片。但是唤醒它的特殊传送将被丢失。芯片将在 5ms 后苏醒。

Key Name	Key Number	Type	Default Setting
PSKEY_DEEP_SLEEP_STATE	0x0229	deep_sleep_state	DEEP_SLEEP_ALWAYS

BlueCore has two types of low power state. The one which allows the more saving, and hence has the more constraints on its use, is referred to as "deep sleep" and may be configured by this key.

蓝牙核心低电平状态有两种类型。其一允许更多的补偿，因此在使用时有更多的约束。它归类于“深睡眠”并可能被这一键控制。

Type deep_sleep_statue can be treated as a uint16, taking these values:

deep_sleep_statue 可以被处理为一个 **uint16**，使用这些值：

NEVER (0): Deep sleep will never be used. 深睡眠从未被使用

ALWAYS (1): Deep sleep will be used whenever possible. 深睡眠随时可能被使用。

INACTIVE (2): Deep sleep when there are no ACL connections. 当没有 **ACL** 连接时深睡眠。

ALWAYS_ACCURATE (3): Deep sleep will be used whenever possible; the firmware assumes the module has an accurate external slow clock which does not need calibrating after startup.

深睡眠随时可能被使用；固件采取的模块拥有一个在启动后不需要校准的正确的外部缓慢时钟。

If the setting is ACCURATE (3), PSKEY_DEEP_SLEEP_USE_EXTERNAL_CLOCK should be set to TRUE to indicate that an external slow clock is in use. This combination of settings saves power as the firmware will not need to calibrate the slow clock against the standard 20 ppm clock once the frequency of the external slow clock has been ascertained.

如果设置为 **ACCURATE (3)**，**PSKEY_DEEP_SLEEP_USE_EXTERNAL_CLOCK** 需要被设置为 **TURE** 以实现使用一个外部的缓慢时钟。这一关联设置节省功率，一旦外部缓慢时钟频率被确定，固件将不需要依仗标准 **20PPM** 时钟校准缓慢时钟。

In deep sleep, BlueCore's accurate clock is not operational and timing is maintained by a low power but less accurate clock. Deep sleep may be entered when an ACL connection is in hold, sniff or park mode; hence accuracy is lost. In certain situations, where power saving is not a major priority but maintaining accuracy of the clock is (for example, a network access point which has a large number of parked connections), it may be advantageous to disable deep sleep mode with this key.

在深睡眠状态，蓝牙核心的精准时钟不运作，定时被一个低功耗但是不是十分精准的时钟所控制。当保持在一个 **ACL** 连接，呼吸或者暂停模式时将进入深睡眠状态；因此，失去精确性。在某一情形，维持正确的时钟优先于节省功率（例如，拥有大量保持关系的网络访问接口）可能有利于通过这个键使深睡眠丧失能力。

Deep sleep also causes slightly slower response on the UART when BCSP is in use if no data has been received for a while. See PSKEY_UART_SLEEP_TIMEOUT.

当使用 **BCSP** 时如果暂时没有数据被接收，深睡眠也会导致 **UART** 上的响应稍微的减缓。见 **PSKEY_UART_SLEEP_TIMEOUT**.

This does not affect the other low power states, in which clock accuracy is not lost.

它不会影响其它低功耗模式，时钟精确性不会丢失。

Key Name	Key Number	Type	Default Setting
PSKEY_IQ_ENABLE_PHASE_TRIM	0x022d	bool	TRUE

Parameter for the IQ trim auto calibration routine.

IQ 整理校准程序参量。

Selects whether phase trimming is done as part of the IQ trim routine. If this is set to disabled then the appropriate bits from PSKEY_IQ_TRIM are used.

挑选已经调整的相位，**IQ** 整理程序的一部分。如果这个被设置为丧失能力，那么 **PSKEY_IQ_TRIM** 的恰当位被使用。

Key Name	Key Number	Type	Default Setting
PSKEY_HCI_HANDLE_FREEZE_PERIOD	0x0237	TIME	15 * SECOND

The default period in microseconds for which data reception on a HCI connection handle is maintained after the corresponding connection has been removed.

在 **HCI** 连接操作上的数据接收默认微秒周期在相应的连接被移开之后被维持。

Reception must be enabled for this additional period as stray late data may come from the host. The freeze period should thus be sufficiently large for the host to realise that a HCI connection has been removed or has failed.

接收必须在这一附加的周期被激活，偏离的晚期数据可能从主设备到来。冻结周期因而要充分的大以让主设备了解一个 **HCI** 连接被移开或者失败。

Any data received during the period when the connection handle is frozen is diverted into a dummy buffer and thus effectively discarded.

当连接操作被冻结时的所有周期内的数据接收被转移到一个虚拟的缓存器，因而实际被放弃。

The value stored under this key is also the minimum time before a HCI connection handle can be re-allocated for a new connection.

储存在这一键值下的值也是一个 **HCI** 连接操作可以被再分配一个新的连接的最小时间。

Maintaining a connection handle for this additional period consumes some of the chip's resources. Hence creating and destroying connections rapidly relative to the freeze period will result in a resource leak. After the number of currently frozen handles reaches a limit set by PSKEY_MAX_FROZEN_HCI_HANDLES, further attempts to create connections will be rejected.

为这个附加的周期消耗一些芯片的资源维持一个连接处理。从而对于冻结周期而言迅速的创造和破坏连接将导致一个资源泄露。在一定数量当前冻结操作到达后，**PSKEY_MAX_FROZEN_HCI_HANDLES** 设置了一个限制，进一步的试图创造连接将被拒绝。

(Type TIME is fundamentally a uint32. Value SECOND is 1000000.)

Key Name	Key Number	Type	Default Setting
PSKEY_MAX_FROZEN_HCI_HANDLES	0x0238	uint16	20

The default number of frozen connection handles at which further connection requests will be refused.

After a connection has been removed, its hci handle is maintained active for a short period, defined by PSKEY_HCI_HANDLE_FREEZE_PERIOD. Some resources are required to maintain the link active and thus if connections are created and destroyed rapidly in relation to this period, resources will gradually be consumed.

冻结连接操作的默认数据进一步连接请求将被拒绝。在一个连接被断开之后，它的 HCI 操作在一小段时间内维持积极状态。由 PSKEY_HCI_HANDLE_FREEZE_PERIOD 加以定义。一些资源对于维持连接是必须的，因此连接比这一周期更为迅速的被创造和破坏，资源将逐渐的被消耗。

To prevent constraining the operation of any existing connections due to lack of memory, further connection requests will be rejected when the number of currently frozen handles reaches the value stored under this key.

妨碍一支任何现有的连接归结于缺少存储器，当一批现有冻结操作值存储在这一键值时，进一步连接请求将被拒绝。

Key Name	Key Number	Type	Default Setting
PSKEY_PAGETABLE_DESTRUCTION_DELAY	0x0239	TIME	50*MILLISECOND

The default delay in microseconds from the point at which a buffer is redirected until its page table and any mmu memory allocated to it can be freed.

指针的默认微秒延迟，一个缓冲器被改变方向直到页面和存储单元存储器分配它可以被释放。

Buffers used to receive data from the host are redirected to point to a dummy buffer when a connection is torn down. This enables reception to continue on this buffer (connection) handle for a certain period after a link is removed.

当一个连接被拆分，用于接收主机数据的缓存器被改变方向指向虚拟缓冲器。这使能在连接断开后的某一时期这个缓冲器可以连续接收。

Most of the buffer resources can be freed as soon as the handle is redirected. The buffer page table address however is cached by the CSR chip hardware during the reception of a hci data packet payload. The page table thus cannot be destroyed for a period equal to the duration of the largest packet that the host can send.

当操作改变方向时大多数的缓存器资源可以被释放。在接收一个 HCI 数据包有效载荷时，缓存器页表地址被 CSR 硬件隐藏。因此不会损坏页表的周期胜于主机可以发送大量数据的周期。

(Type TIME is fundamentally a uint32. Value SECOND is 1000000.)

Key Name	Key Number	Type	Default Setting
PSKEY_IQ_TRIM_PIO_SETTINGS	0x023a	uint8	0

Defines the state of PIO lines 0 and 1 during automatic IQ calibration. Only the lower 4 bits of the uint8 are used and these having the following meaning. If bit 2 is set to 1 it enables PIO bits 0 and 1 to be set to a particular state during IQ trim. In this case, the state of lines 1 and 0 is set by the pskey's bits 1 and 0 respectively. If bit 2 is set to 0 then the existing values of the PIO lines will be preserved through the IQ trim and bits 0 and 1 of the pskey are ignored. If pskey bit 3 is set to 1 then the external transmit power control DAC is enabled at its maximum setting during IQ trim.

在自动 IQ 校准时定义 PIO 连接 0 和 1 的状态。只有 uint8 的低 4 位被使用，并且它们具有如下含义。如果 2 位设置为 1，它使 PIO 位 0 和 1 在 IQ 整理时被设置为特殊状态。既然如此，pskey 的位 1 和 0 分别对应

设置连接状态 1 和 0.如果 2 位设置为 0，那么 PIO 连接的现有值将通过 IQ 整理保存，PSKEY 的 0 和 1 位将被忽略。如果 pskey 的 3 位设置为 1，那么在 IQ 整理时外部传输功率控制 DAC 在它的最大设置被激活。
During the auto-IQ trim both transmitter and receiver are active. Energy from the transmitter is looped back to the receiver which is used to measure the level of image rejection which has been achieved. For this to work successfully the transmitter must be presented with a respectable load.
在 IQ 整理阶段，所有发送者和接收者都处于积极状态。发送者的能量循环给接受者用于测量达到的映像排斥水平。为了以上能够顺利的工作，传送者必须被予以数量客观的载荷。
For Class 1 modules the transmitter drives a PA. The impedance presented to the transmitter is generally respectable even if the PA is not switched on during the auto-IQ trim.
在 Class1 模型，传送者驱动一个 PA.出现在传送者上的阻抗是客观的，即使 PA 在 IQ 整理时未接通。
For modules with no PA the transmitter output is coupled via a balun to the transmit/receive switch. The impedance presented to the transmitter during auto-IQ trim is dependent on the setting of the transmit/receive switch, which is governed by PIO lines 0 and 1. However different switch models exhibit different behaviour with the PIO control lines, even switch models from the same manufacturer. For example, it is possible for the switch to present a high impedance, ground or even a time varying impedance to the transmitter.
在无 PA 模块，发送者输出连接到一个不平和变压器到传送/接收开关。在 IQ 整理时出现在发送者的电阻依赖于设置发送/接收转换，受 PIO 连接 0 和 1 支配。但是不同的转换模式展示不同的 PIO 控制连接行为。即使转换模式来自相同的厂商。比如，他了能切换到现有的一个高阻抗，范围甚至一个时间改变发送者的阻抗。
For modules with a PA, PIO lines 0 and 1 should be 0 to ensure that the PA is disabled during auto-IQ trim (although certain modules invert these PIO lines, requiring different settings).
在 PA 模块，pio 连接 0 和 1 需要为 0 以保证 IQ 整理时 PA 丧失能力。（尽管某些模块转换这些 PIO 连接，要求不同的设置）。
For modules with no PA the pskey should be set to place the transmit/receive switch in the state that provides optimum performance for the auto-IQ trim algorithm.
在没有 PA 的模块，pskey 需要被设置放置发送/接收转换状态，为 IQ 整理运算法则提供最佳性能。

Key Name	Key Number	Type	Default Setting
PSKEY_USE_EXTERNAL_CLOCK	0x023b	bool	TRUE

On BlueCore2, if set, the chip accepts a clock from an external source.
在 BlueCore2，如果设置，芯片接收一个外部来源的时钟。
For BlueCore3 and onward, the external clock works if this is not set, but some power is saved if it is TRUE.
在 BlueCore3 及之后，如果不设置则外部时钟工作，但是如果设置为 TRUE 则节省一些功率。
For BlueCore5 and onward, if a crystal is used, this key MUST be set to FALSE; otherwise the chip will not run.
在 BlueCore5 及之后，如果晶振被使用，这一键值必须设置为 FALSE;另外，芯片将不运行。
(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_DEEP_SLEEP_WAKE_CTS	0x023c	uint16	0

Deep sleep is allowed with some (but not all) host interfaces that use the UART. This key determines whether the chip will wake from deep sleep due to activity on the CTS line from the host, and also due to activity on the data RX line. Three values are allowed.

深睡眠在一些（但不是全部）的使用 **UART** 主机接口允许被使用。这一键值确定芯片是否由于主设备的 **CTS** 连接活动或者也可能由于数据 **RX** 连接，将被从深睡眠状态唤醒。三个值被允许。

0: The chip wakes due to activity on the data RX line, but does not wake due to activity on the CTS line. This is the default.

芯片由于数据 **RX** 连接活动被唤醒。但是并不是由于 **CTS** 连接的活动。这一值为默认值。

1: The chip wakes due to activity on either the data RX line or the CTS line.

芯片由于数据 **RX** 连接活动或者 **CTS** 连接活动被唤醒。

2: The chip wakes due to activity on the CTS line, but does not wake due to activity on the data RX line.

芯片被 **CTS** 连接活动所唤醒，而不是被数据 **RX** 连接活动唤醒。

Note that the chip is sensitive to the level on both lines: if the line is held low, and wake-up on the line has been enabled, the chip will be kept out of deep sleep. Note also that the chip is sensitive to the lines themselves; it is not actually required that there is a host using the UART for data communication.

注意，芯片在所有连接水平都很灵敏：如果连接保持低状态，并且连接上的唤醒被激活，芯片将保持深睡眠状态。同样要注意芯片对于每个连接也很灵敏，主设备使用 **UART** 数据通信不是必须的。

If the host interface is set to `none', i.e. the firmware has been informed that no host communication is in use, it is still possible to use the CTS line to wake the chip. However the data RX line is ignored. This is because this line is floating in many hardware configurations with no host interface.

如果主设备接口设置为**'none'**，也就是说，固件已经被获知没有主设备通信在使用中。仍然可能使用 **CTS** 连接以唤醒芯片。但是忽略数据 **RX** 连接。这是因为这一连接在某些固件构造中是不固定的，没有主设备接口。

The key is ignored if the host interface is USB.

如果主机接口为 **USB**，则该键值被忽视。

Key Name	Key Number	Type	Default Setting
PSKEY_FC_HC2H_FLUSH_DELAY	0x023d	TIME	10 * SECOND

The default delay in microseconds from destroying a connection until any outstanding host controller to host flow control tokens are flushed.

从破坏，直到任何未解决的主机控制器连接到主机的流量控制在微秒特征默认延迟被刷新。

This delay is required to workaround a race hazard in the hci specification. The host might not acknowledge packets sent around the time when it is sent a disconnect event - the buffers used for these packets should thus be assumed to be free by the host controller. However as the processing of the disconnect is not synchronised on the host and host controller, a delay is required to ensure the host has actually flushed its buffers and thus prevent temporary overruns.

这一延时在 **HCI** 说明中被要求工作在一个快速的有风险的环境。当它发送一个拆分事件时，主设备可能不承认数据包围绕着时间发送-用于这些数据包的缓冲器需要因此被住控制器假设为自由的。但是，在主设备和主设备控制器上处理拆分是不同步的，必须有一个延时确保主设备有确实充裕的缓存并因此阻止临时的溢出。

The time delay from disconnection to flushing the buffers should be less than the time for which a connection handle is frozen after disconnection (defined by PSKEY_HCI_HANDLE_FREEZE_PERIOD). This ensures the handle is not re-allocated during the flush delay and thus that the buffers for the new link are not interfered with.

从断开到刷新的时间延时缓存器必须少于断开后冷冻的连接控制（由 PSKEY_HCI_HANDLE_FREEZE_PERIOD 定义）。这确保操作在刷新延时期间不会再分配，因此新连接的缓存器不会被干预。

(Type TIME is fundamentally a uint32. Value SECOND is 1000000.)

Key Name	Key Number	Type	Default Setting
PSKEY_RX_HIGHSIDE	0x023e	bool	FALSE

If this key is FALSE, the local oscillator frequency is 1.5 MHz less than the carrier frequency to be received, whereas if it is TRUE the LO frequency is 1.5 MHz higher than the carrier frequency.

如果这一键值设置为 **FALSE**，本地设备振荡频率为 **1.5MHz**，小于被接收到的载波频率，但是，如果是 **TRUE**，**LO** 频率为 **1.5MHz**，高于载波频率。

For chips starting with BlueCore2-ROM and versions of firmware starting with 17.4, this is taken as an input to the algorithm which calculates the RF frequency parameters for each receive channel. The result may be that some channels do not use the value of this key.

从 **BlueCore2-ROM** 芯片和固件 **17.4** 描述，它将一个输入带入运算法则计算每个接受信道的 **RF** 频率参数。结果可能是一些信道不使用这一键值。

(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_TX_PRE_LVL	0x0240	uint8	8

Sets the level of the transmitter pre-amplifier. Higher values give more transmit power (at the expense of higher current consumption).

设置发送设备前置放大器水平。较高值提供更多的发射频率。（在高消耗的情况下）

Key Name	Key Number	Type	Default Setting
PSKEY_RX_SINGLE_ENDED	0x0242	bool	FALSE

If TRUE, the receiver operates in single ended mode which means that the receiver input pin to BlueCore must be connected. If FALSE, the receiver operates in differential mode using the two transmit pins as the receiver inputs.

如果设置为 **TRUE**,接收设备运转在单目标模式，即接收设备输入端口到蓝牙核心必须被连接。如果设置为 **FALSE**，接收设备运行在不同的模式，使用两种传输端口为接收设备输入。

Key Name	Key Number	Type	Default Setting
PSKEY_TX_FILTER_CONFIG	0x0243	uint32	0x88070003

Configures the transmit filter for optimum modulation. For CSR use only.

设定最适宜调制的发射滤波器。只有 **CSR** 使用。

Key Name	Key Number	Type	Default Setting
PSKEY_CLOCK_REQUEST_ENABLE	0x0246	uint16	0

The BlueCore can be configured to use a PIO to indicate that it requires an external high-speed clock reference at the frequency configured by PSKEY_ANA_FREQ. This line will be inactive when no clock reference is required (for instance, when the BlueCore is in deep sleep).

蓝牙核心可以被配置使用一个 PIO 指示它运用 PSKEY_ANA_FREQ 的频率配置命令一个外部高速时钟。当没有必要涉及时钟时这个连接是不活跃的。（比如当蓝牙核心处于深睡眠）。

If set to 0, no PIO is used as a clock request. If set to 1, PIO[6] is active when an external clock reference is required, and is inactive otherwise. If set to 2, PIO[2] is active when an external clock reference is required, and is inactive otherwise. If set to 3, PIO[2] is active when an external clock reference is required or if PIO[3] is high, and is inactive when a clock reference is not required and PIO[3] is low.

如果设置为 0，没有 PIO 用于时钟请求，如果设置为 1，当需要一个外部时钟请求时 PIO[6]是活跃的。如果设置为 2，当需要一个外部时钟请求时 PIO[2]是活跃的]，否则是不活跃的。如果设置为 3，当需要一个外部时钟请求或 PIO[3]为高电平时 PIO[2]是活跃的]，当一个时钟请求不是必须的并且 PIO[3]为低电平时是不活跃的。

Values of 2 and 3 are only useful for versions of the BlueCore hardware starting with BlueCore2-ROM.

2 和 3 只用于蓝牙核心硬件 BlueCore2-ROM 之后的版本。

In the default configuration, a PIO is held high when active and held low when inactive. In versions of BlueCore from BlueCore3-ROM, this behaviour can be altered by setting PSKEY_CLOCK_REQUEST_FEATURES.

在默认结构，一个 PIO 在活跃时保持高电平，不活跃时保持低电平。在 BlueCore3-ROM 的蓝牙 描述中，这一行为可以通过设置 PSKEY_CLOCK_REQUEST_FEATURES 而改变。

Key Name	Key Number	Type	Default Setting
PSKEY_RX_MIN_ATTEN	0x0249	uint16	0

Minimum allowed attenuation for receiver apart from channels 29,30,31,61,62,63. This can be used to improve C/I performance and to improve consistency of receiver sensitivity over frequency range.

从信道 29.30.31.61.62.63 接收碎片的被允许的最小衰变。可用于改善 C/I 性能和提高在频率范围内的接收灵敏度的稳定性。

Key Name	Key Number	Type	Default Setting
PSKEY_XTAL_TARGET_AMPLITUDE	0x024b	uint8	45

This sets the target crystal oscillation amplitude as determined by the device's internal circuitry. This is not as will be measured using external instruments.

视装置的内部电路设置对应晶振振幅。它将不被使用外部一次测量。

Pre-BC5 the pskey is used to set an absolute internal oscillation amplitude. For BC5 the pskey sets a % of the maximum measured internal amplitude, it is a relative internal level.

Note: As a rule, the default value issued by CSR will not need to be changed.

在 Pre-BC5 该键用于设置一个完全内部振幅。在 BC5 这一键设置一个被测量的最大内部振幅值的百分比，它是一个相对的内部水平。

注意，一般来说，CSR 发表的最大值将不需要被修改。

The crystal bias level is chosen such that the oscillation amplitude is as close as possible to the target. This is done by gradually decreasing the crystal bias level from its maximum until the target amplitude is reached.

晶体误差水平被选择为尽可能接近目标的振幅。这依赖于从它的最大值到目标振幅逐渐减少晶振误差水平。

The target amplitude is treated as a minimum; as long as it is achievable, the firmware will use a crystal bias that produces at least the requested amplitude.

目标振幅被处理为一个最小值；由于它的可实现性，固件将使用晶体误差产生最低限度的请求振幅。

It was originally possible to set the crystal bias level directly but that control has been superseded by this improved "set and measure" approach. This provides correct operation with some variance in crystal parameters and also tracks over changes in temperature, it is not intended as a level control mechanism per-se.

它本来可以直接设置晶振误差水平，但是控制被改良的**"set and measure"**方式取代。它规定了在不同晶体参数中的正确操作，并同时在信道上跟踪温度。它并不是一个控制装置本身的水平。

A module designer may wish to test the effect of changing the configured target amplitude across a representative sample of modules and adjust the production target amplitude accordingly.

一个设计者可能希望通过一个单元代表性样品和调整相应的产品指标振幅来检验改变配置目标振幅的结果。

This assessment of level should be made by observing the correct operation of the unit rather than trying to measure the amplitude directly.

这一水平的评估由正确的单元操作完成而不是试图直接的测量振幅。

Typically, setting a value larger than the correct one will lead to a stable crystal that draws an unnecessarily large current. Setting a value smaller than the correct one can lead to the system clock being unstable and it may even stop.

有代表性的，设置一个大于正确值的值将导致一个稳定的晶振带动一个不必要大的电流。设置一个小于正确值的值会导致系统时钟变的不稳定甚至停止。

Larger values than necessary have been observed to produce additional phase noise.

使用比需求的值大的值导致额外的阶段噪音。

Direct measurement using an oscilloscope is not recommended because the additional load capacitance can disrupt operation of the oscillator and the device's internal measurements.

不推荐使用一个示波器直接测量，因为负载电容可能扰乱振荡器的操作和设备的内部测量。

Note that this key is not used during DFU. In that mode the crystal bias is always set to maximum.

注意，这一键值在 **DFU** 中不被使用。在那个模式，晶振误差通常设置为最大值。

Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_PCM_MIN_CPU_CLOCK	0x024d	uint16	CPU_SLOW_4M

The firmware tries to save power by reducing the clock rate when the processor is idle. The clock drives the CPU, PCM, UART, USB, baseband hardware, etc. This is normally called "shallow sleep."

当处理器空闲时，固件尝试通过减少时钟频率节省功率。时钟驱动 **CPU.PCM.UART.USB** 基带硬件等等。这通常被叫做“浅睡眠”。

Some of the chip's hardware sets a lower limit on how slowly the clock can be run. This key controls what limit PCM bus activity places on the clock speed.

一些芯片硬件为时钟的最慢运行设置了一个下限，这一键控制用限制 **PCM** 通路活跃度限制时钟速度。

The default value of 4MHz is suitable for many PCM operations. It may be necessary to increase this for

high sample rates and certain operating modes. It may be possible to reduce this value for reduced power consumption, but the PCM function may not operate correctly if run too slow. For more advice, contact CSR.

默认值 4MHz 适合于许多 PCM 操作。对于高样本水平和某些运转模式而言有必要将其增加。为了简化功率可能要减小这一值，但是如果设置的过低 PCM 功能可能无法正常运转。一些更多的建议请联系 CSR 公司。

The pskey's acceptable values are:

0 CPU_FAST (full rate)

1 CPU_SLOW_4M (4 MHz)

2 CPU_SLOW_2M (2 MHz)

3 CPU_SLOW_1p024M (1.024 MHz)

See also PSKEY_CODEC_MIN_CPU_CLOCK.

Key Name	Key Number	Type	Default Setting
PSKEY_HOST_INTERFACE_PIO_USB	0x0250	uint16	none

The PIO line used for forcing the host interface to be USB. The absence of this key, or the value 0xFFFF, indicates that this feature is not in use.

用于强制主机接口到 USB 的 PIO 连接。没有这一键或者值为 0xFFFF 表明不使用这一特征。

The interface to the host is normally set by PSKEY_HOST_INTERFACE. If this key is set then the specified PIO line is checked at boot time, and if it is asserted (high) then the host interface is set to USB, overriding the setting of PSKEY_HOST_INTERFACE.

到主设备的接口通常由 PSKEY_HOST_INTERFACE.设置。如果这一键值被设置，那么指定的 PIO 连接将在启动时被检查，如果被断定（高）那么主设备接口设置为 USB，优先级高于 PSKEY_HOST_INTERFACE 设置。

The other host transport related persistent store keys must be set appropriately for both the default (probably BCSP) and USB transports.

其它主机与传输有关的持续存储键值必须恰当的设置用于默认（可能是 BCSP）和 USB 传输。

If PSKEY_HOST_INTERFACE_PIO_H4 is also valid, and both PIO lines are asserted (or they are the same line), this key takes precedence.

如果 PSKEY_HOST_INTERFACE_PIO_H4 也是恰当的，并且 PIO 连接被判定（或者他们是同一连接），这一键值具有优先权。

Key Name	Key Number	Type	Default Setting
PSKEY_CPU_IDLE_MODE	0x0251	cpu_idle_mode	cpu_idle_ram

When the radio is active but the chip is otherwise idle, background processor activity can be limited in various ways. Which is most appropriate depends on details of the hardware. Hence this key should not be altered without appropriate knowledge. The possibilities are

当无线传输是活跃的但是芯片却是空闲状态，内部处理器活跃度可能被若干条件所限制，充分的依赖于硬件的详细资料。因此在没有充分理解的情况下这一键值不可以被修改。可能性如下：

NONE (0): Processor continues normal task loop **处理器连续正常工作循环。**

LONG_LOOP (1): Processor executes long idle loop **处理器处理长时间空闲循环**

SHORT_LOOP (2): Processor executes short idle loop **处理器处理段空闲循环**

RAM (3): Processor idles in RAM **处理器在 RAM 空闲**

ROM (4): Processor idles in ROM 处理器在 **ROM** 空闲

Key Name	Key Number	Type	Default Setting
PSKEY_DEEP_SLEEP_CLEAR_RTS	0x0252	bool	FALSE

This key is used for deep sleep with the BCSP and H5 host transports only. If TRUE, the chip clears the RTS line (i.e. sets it high) when it enters deep sleep, and (depending on the state of the UART) may reset it afterwards if it is ready to receive.

这一键只用于 BCSP 和 H5 主设备传输深睡眠。如果是 TRUE，当它进入深睡眠状态时，芯片清理 RTS 连接（也就是设置为高），同时（依赖于 UART 状态）如果准备好接收，可能在之后复位。

If hardware flow control is in effect on the remote host, setting the key causes the remote UART not to transmit packets while the chip is in deep sleep. Therefore it is not possible to use the effect of BCSP retransmissions to wake the chip. Usually, therefore, this key will be used in combination with PSKEY_DEEP_SLEEP_WAKE_CTS.

如果硬件流控制作用于远端主设备，设置该键引起远端 UART 在芯片处于深睡眠时不发送数据包。因此不可能使用 BCSP 发送结果以唤醒芯片。通常，因此，这一键如 PSKEY_DEEP_SLEEP_WAKE_CTS 配合使用。

(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_RF_RESONANCE_TRIM	0x0254	uint16	0x333B

Sets the frequency trim for the IQ and LNA resonant circuits. Post BC5, use PSKEY_RF_RESONANTS_LO and PSKEY_RF_RESONANTS_HI

为 IQ 和 LNA 响应电路设置频率微调。BC5 公告，使用 PSKEY_RF_RESONANTS_LO 和 PSKEY_RF_RESONANTS_HI。

Key Name	Key Number	Type	Default Setting
PSKEY_DEEP_SLEEP_PIO_WAKE	0x0255	uint16	16

The number of a PIO line, 0 to 15, which will cause the chip to wake from deep sleep. This use does not preclude the use of the same PIO line as an ordinary input. However, a PIO which is usually configured as an output may not be used. If the setting is out of range, no PIO line will be used. The wake-up is triggered by the level of the line being held high for at least 1 millisecond, not by the rising or falling edge.

PIO 连接的数字，0 到 15，将导致芯片从深睡眠中唤醒。这一使用并不阻止相同的 PIO 连接仍作为一个正常的输入使用，但是，一个通常被设置为输出的 PIO 口可能不会被使用。如果设置在范围之外，则没有 PIO 口被使用。 唤醒被保持为高至少 1 毫秒连接水平触发，而不是被上升沿或下降沿。

If the chip notices it has been woken, and it is configured to use the UART, it will remain out of deep sleep for at least the period given by PSKEY_UART_SLEEP_TIMEOUT. This is because it cannot distinguish wakeups from the two sources. Otherwise, the chip may return to deep sleep as soon as there is no task to be performed.

如果芯片通知它被唤醒，同时它配置用于 UART，他将被 PSKEY_UART_SLEEP_TIMEOUT 指定离开深睡眠状态至少一段时间。因为它不能辨别来自两个来源的唤醒信号。不然，芯片将在没有没有任务被执行时迅速返回深睡眠状态。

If the VM is configured to use a PIO line as an interrupt source, the chip will automatically be woken from

deep sleep on that line, so this key is not usually required. It may still be used; however, the chip may generate interrupts on the PIO line set by this key, since it does not discriminate between individual PIO lines.

如果 VM 被配置使用一个 PIO 连接为中断源，在那个连接芯片将自动从深睡眠状态唤醒。因此这一键在通常情况下不是必须的。它可能仍然被使用，不过，在它在单独的 PIO 连接没有区别时，设置这个键可能在 PIO 连接上产生中断。

Key Name	Key Number	Type	Default Setting
PSKEY_DRAIN_BORE_TIMERS	0x0256	uint32[]	none

This PS-Key Configures the Drain subsystem (only in special builds). This is the amount we scale each timer by.

这一 PS-Key 设置 Drain（消耗）系统（只在特殊的结构中）。这是我们规划每个计时器的数量。

Key Name	Key Number	Type	Default Setting
PSKEY_DRAIN_TX_POWER_BASE	0x0257	uint16	none

This PS-Key Configures the Drain subsystem (only in special builds).

这一 PS-Key 设置 Drain（消耗）系统（只在特殊的结构中）。

Key Name	Key Number	Type	Default Setting
PSKEY_MODULE_ID	0x0259	uint32	0

A serial number for the module. This number may be allocated by the module manufacturer to track production, etc. This value is not used by any on-chip code and is for manufacturer information only.

一个模块的序列号。这一数字可能被模块厂商分配用于检测产品，等等。这一值不用于任何芯片上的编码，只用于生产商信息。

The firmware makes no use of this key's value.

固件不使用这一键值。

Key Name	Key Number	Type	Default Setting
PSKEY_MODULE_DESIGN	0x025a	uint16	0

An identifier of the Bluetooth module design. This is allocated by the module manufacturer, so the combination of this key and PSKEY_MODULE_MANUFACTURER should be enough to specify a hardware module design.

一个蓝牙模式设计标识符。被模块制造商分配，因此，与 PSKEY_MODULE_MANUFACTURER 联合使用需要足以说明硬件模式设计。

This value will normally be independent of firmware identifiers which are used to distinguish various builds of the module's software.

这一值通常与区别不同构造的模块软件硬件标识符无关。

The firmware makes no use of this key's value.

硬件不使用这一键值。

Key Name	Key Number	Type	Default Setting

PSKEY_MODULE_SECURITY_CODE	0x025c	uint16[]	none
When the module is intended to be used with certain host-side applications or stacks, this key is set to an encrypted value. **当模块被确定为用于某一主设备-方向 应用软件或堆栈，这一键值被设置成一个加密值。** The host-side application may subsequently check the value of this key to determine whether or not it is licensed to run with the module. **主设备方向应用软件可能随后检测这一键值以确定是否给模块授权。**			

Key Name	Key Number	Type	Default Setting
PSKEY_VM_DISABLE	0x025d	bool	FALSE
If TRUE, the VM will not be started when the chip boots. If FALSE, VM operation is normal. **如果设置为 TRUE，当芯片启动时 VM 将不被启动，如果设置为 FALSE，VM 正常运转。** (Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)			

Key Name	Key Number	Type	Default Setting
PSKEY_MOD_MANUF0	0x025e	uint16[]	none
Keys PSKEY_MOD_MANUF0 to PSKEY_MOD_MANUF9 are for use by module manufacturers. The firmware makes no use of these pskeys' contents. **PSKEY_MOD_MANUF0 和 PSKEY_MOD_MANUF9 键被模块厂商使用，硬件不使用这些 PSKEY 的内容。** Keys PSKEY_MOD_MANUF0 to PSKEY_MOD_MANUF4 are protected against DFU; they are never included in uploads, and are ignored in downloads. This makes them suitable for storing module specific or sensitive information; use keys in the range PSKEY_MOD_MANUF5 to PSKEY_MOD_MANUF9 if such protection is not required. **PSKEY_MOD_MANUF0 和 PSKEY_MOD_MANUF4 依仗 DFU 被保护，它们不在上传范围内，也被下载忽视。这使得它们适合存储模块细节或敏感的信息。如果这样的保护不是必需的，这一键将在 PSKEY_MOD_MANUF5 到 PSKEY_MOD_MANUF9 范围内被使用。**			

Key Name	Key Number	Type	Default Setting
PSKEY_MOD_MANUF1	0x025f	uint16[]	none
See the description of PSKEY_MOD_MANUF0.			

Key Name	Key Number	Type	Default Setting
PSKEY_MOD_MANUF2	0x0260	uint16[]	none
See the description of PSKEY_MOD_MANUF0.			

Key Name	Key Number	Type	Default Setting
PSKEY_MOD_MANUF3	0x0261	uint16[]	none
See the description of PSKEY_MOD_MANUF0.			

Key Name	Key Number	Type	Default Setting
PSKEY_MOD_MANUF4	0x0262	uint16[]	none
See the description of PSKEY_MOD_MANUF0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_MOD_MANUF5	0x0263	uint16[]	none
See the description of PSKEY_MOD_MANUF0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_MOD_MANUF6	0x0264	uint16[]	none
See the description of PSKEY_MOD_MANUF0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_MOD_MANUF7	0x0265	uint16[]	none
See the description of PSKEY_MOD_MANUF0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_MOD_MANUF8	0x0266	uint16[]	none
See the description of PSKEY_MOD_MANUF0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_MOD_MANUF9	0x0267	uint16[]	none
See the description of PSKEY_MOD_MANUF0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_DUT_VM_DISABLE	0x0268	bool	TRUE
If TRUE, the VM will be disabled when the chip enters radiotest modes (either Bluetooth or CSR-specific test modes). If FALSE, the VM continues operating. It is recommended this only be set to FALSE if the VM application is being used to control test mode; this is necessary, for example, in configurations where no host interface is present. **如果设置为 TRUE，当芯片进入测试模式，VM 将失效（蓝牙或 CSR 细节测试模式）。如果为 FALSE，VM 正常运转。如果使用 VM 运转控制测试模式，这一键值只被推荐设置为 FALSE;这是必需的；例如，在没有主设备界面出现的构造中。** (Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR0	0x028a	uint16[]	none
Keys PSKEY_USR0 to PSKEY_USR49 are for use by host and on-chip application- specific code to			

allocate as it chooses.

PSKEY_USR0 到 **PSKEY_USR49** 被主设备和芯片上的请求使用-选择分配的细节代码。

PSKEY_USR0 to PSKEY_USR24 may only be changed by DFU by placing them in the application protected section of the file and signing them with the application private key. These pskeys are never included in DFU files uploaded from a BlueCore. This makes them suitable for storing module specific or sensitive information; use keys in the range PSKEY_USR25 to PSKEY_USR49 if such protection is not required.

PSKEY_USR0 到 **PSKEY_USR24** 只可能通过 **DFU** 改变 通过引导它们到文件申请被保护的片段，并通过申请密钥标记它们。这些键值不会包含在从蓝牙核心上传的 **DFU** 中。这使它们适合保管模块细节或敏感信息。如果这些保护不是必需的，则使用 **PSKEY_USR25** 到 **PSKEY_USR49** 范围内的键。

Key Name	Key Number	Type	Default Setting
PSKEY_USR1	0x028b	uint16[]	none
See the description of PSKEY_USR0.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR2	0x028c	uint16[]	none
See the description of PSKEY_USR0.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR3	0x028d	uint16[]	none
See the description of PSKEY_USR0.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR4	0x028e	uint16[]	none
See the description of PSKEY_USR0.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR5	0x028f	uint16[]	none
See the description of PSKEY_USR0.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR6	0x0290	uint16[]	none
See the description of PSKEY_USR0.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR7	0x0291	uint16[]	none
See the description of PSKEY_USR0.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR8	0x0292	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR9	0x0293	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR10	0x0294	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR11	0x0295	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR12	0x0296	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR13	0x0297	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR14	0x0298	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR15	0x0299	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR16	0x029a	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**

PSKEY_USR17	0x029b	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR18	0x029c	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR19	0x029d	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR20	0x029e	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR21	0x029f	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR22	0x02a0	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR23	0x02a1	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR24	0x02a2	uint16[]	none
See the description of PSKEY_USR0.			
Key Name	**Key Number**	**Type**	**Default Setting**
PSKEY_USR25	0x02a3	uint16[]	none
Keys PSKEY_USR0 to PSKEY_USR49 are for use by host and on-chip application- specific code to allocate as it chooses. **PSKEY_USR0** 到 **PSKEY_USR49** 被主设备和芯片上的请求使用-选择分配的细节代码。 PSKEY_USR25 to PSKEY_USR49 may be changed by placing them in either the unprotected or application protected areas of the DFU file. These pskeys are included in DFU files uploaded from a			

BlueCore. This makes them unsuitable for storing module specific or sensitive information; use keys in the range PSKEY_USR0 to PSKEY_USR24 for such data.

PSKEY_USR25 到 **PSKEY_USR49** 只可能通过导入它们到无保护状态或 **DFU** 区域的请求保护范围。这些键包含在从蓝牙核心上传的 **DNF** 区域。这使得它们不适合存储模块细节或敏感信息。这些数据要使用 **PSKEY_USR0** 到 **PSKEY_USR24** 范围内的键。

Key Name	Key Number	Type	Default Setting
PSKEY_USR26	0x02a4	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR27	0x02a5	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR28	0x02a6	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR29	0x02a7	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR30	0x02a8	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR31	0x02a9	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR32	0x02aa	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR33	0x02ab	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR34	0x02ac	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR35	0x02ad	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR36	0x02ae	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR37	0x02af	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR38	0x02b0	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR39	0x02b1	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR40	0x02b2	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR41	0x02b3	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR42	0x02b4	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting

PSKEY_USR43	0x02b5	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR44	0x02b6	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR45	0x02b7	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR46	0x02b8	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR47	0x02b9	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR48	0x02ba	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USR49	0x02bb	uint16[]	none
See the description of PSKEY_USR25.			

Key Name	Key Number	Type	Default Setting
PSKEY_USB_VERSION	0x02bc	uint16	0x0200

The version of the USB spec supported.

USB 规格支持译文。

The value is in BCD, so 0x0200 presents as version "2.0".

值在 BCD 中，因此 0x0200 对应为“2.0”

This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

只有当芯片对应其 USB 界面时该值才被使用，见 PSKEY_HOST_INTERFACE.描述。

Key Name	Key Number	Type	Default Setting

PSKEY_USB_DEVICE_CLASS_CODES	0x02bd	usbclass	0xe0, 0x01, 0x01

Three bytes giving the class information for the "Standard Device Descriptor" of this USB device, as defined in Table 9.7 of version 1.1 of the USB specification.

3 位信息指出 USB 设备的“标准设备描述符”的级别信息。在 USB 规格书 1.1 的表 9.7 中描述。

Type usbclass is held as a uint16[3]. The three values are held in the lower byte of each of the array in the order

USB 级别类型保持 uint16[3]。三个值分别在各自次序排列的低位。

{ class, subclass, protocol }.

级别，子集，协议

Default value maps to: **对应默认值：**

{ WIRELESS_CONTROLLER, RF_CONTROLLER, BLUETOOTH_PROGRAMMING }.

This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

只有当芯片对应其 USB 界面时该值才被使用，见 PSKEY_HOST_INTERFACE.描述。

Key Name	Key Number	Type	Default Setting
PSKEY_USB_VENDOR_ID	0x02be	uint16	0x0a12

The idVendor field of the local USB device, as defined in Table 9.7 of version 1.1 of the USB specification.

本地 USB 设备的 idVendor，在 USB 规格书 1.1 的表 9.7 中定义。

This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

只有当芯片对应其 USB 界面时该值才被使用，见 PSKEY_HOST_INTERFACE 描述。

Key Name	Key Number	Type	Default Setting
PSKEY_USB_PRODUCT_ID	0x02bf	uint16	1

The idProduct field of the local USB device, as defined in Table 9.7 of version 1.1 of the USB specification. This value applies when the local device is acting as a Bluetooth device.

本地 USB 设备的 idVendor，在 USB 规格书 1.1 的表 9.7 中定义。当本地设备担当一个蓝牙设备时该值被应用。

This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

同上条。

Key Name	Key Number	Type	Default Setting
PSKEY_USB_MANUF_STRING	0x02c1	unicodestring	none

The USB manufacturer string, as described in table 9.7 of the USB specification version 1.1. If no value is stored under this key then there is no such string.

USB 制造商字符串。在 USB 规格书 1.1 的表 9.7 中定义。如果没有值被储存在该键之下则没有这样一个字符串。

This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

Key Name	Key Number	Type	Default Setting
PSKEY_USB_PRODUCT_STRING	0x02c2	unicodestring	none
The USB iProduct string, as described in table 9.7 of the USB specification version 1.1. If no value is stored under this key then there is no such string. **USB 产品序列，在 USB 规格书 1.1 的表 9.7 中定义。如果没有值被储存在该键之下则没有这样一个序列。** This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.			

Key Name	Key Number	Type	Default Setting
PSKEY_USB_SERIAL_NUMBER_STRING	0x02c3	unicodestring	none
The USB serial number string, as described in table 9.7 of the USB specification version 1.1. If no value is stored under this key then there is no such string. **USB 序列号，在 USB 规格书 1.1 的表 9.7 中定义。如果没有值被储存在该键之下则没有这样一个序列号。** This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.			

Key Name	Key Number	Type	Default Setting
PSKEY_USB_CONFIG_STRING	0x02c4	unicodestring	none
The USB configuration string, as described in table 9.8 of the USB specification version 1.1. If no value is stored under this key then there is no such string. **USB 结构序号。** This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.			

Key Name	Key Number	Type	Default Setting
PSKEY_USB_ATTRIBUTES	0x02c5	uint8	0xc0
The bmAttributes of the Standard Configuration Descriptor, described in Table 9.8 of USB specification, version 1.1. **规格构造描述符的 BM 特性。** The default value (0xc0) means that the device is self-powered and that remote wakeup is not supported. **默认值 0xc0 意味着设备自动力并且不支持远端唤醒。** This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.			

Key Name	Key Number	Type	Default Setting
PSKEY_USB_MAX_POWER	0x02c6	uint16	0
The MaxPower field of the local USB device, as defined in Table 9.8 of version 1.1 of the USB specification. **本地 USB 设备的最大功率位。**			

This value is given in units of 2 milliamps (sic).
值的单位是 2 milliamps。
This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

Key Name	Key Number	Type	Default Setting
PSKEY_USB_BT_IF_CLASS_CODES	0x02c7	usbclass	0xe0, 0x01, 0x01

Three bytes giving the class information for the USB "Interface Descriptor" (as defined in Table 9.9 of version 1.1 of the USB specification) which contains the USB control, BT HCI event and BT ACL endpoints. The class codes for the BT interface containing the SCO endpoints are given by PSKEY_USB_BT_SCO_IF_CLASS_CODES.
3 位数组指出 USB"界面描述符"的级别信息（在 USB 规格书 1.1 的表 9.9 有所描述）它包含 USB 控制，BT HCI 事件和 BT ACL 终点。PSKEY_USB_BT_SCO_IF_CLASS_CODES 指出了包含 SCO 终点的 BT 界面的级别代码。
Type usbclass is held as a uint16[3]. The three values are held in the lower byte of each of the array in the order
USB 级别类型为 uint16[3]。三个值分别在各自次序排列的低位。
{ class, subclass, protocol }.
级别，自己，协议
Default value maps to: **默认值对应：**
{ WIRELESS_CONTROLLER, RF_CONTROLLER, BLUETOOTH_PROGRAMMING }.
This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

Key Name	Key Number	Type	Default Setting
PSKEY_USB_LANGID	0x02c9	uint16	0x0409

Defines the languages supported by the USB interface. The languages are used in USB identification strings as described in section 9.6.5 of version 1.1 of the USB specification. (Microsoft type "LANGID", used by the USB spec.)
定义 USB 界面的语言支持。USB 辨认语言的字符串在 USB 说明 1.1 的 9.6.5 部分描述。（微软类型 LANGID 被 USB 规格所使用）。
The default value of 0x0409 maps to: **默认值对应：**
Primary language id ENGLISH (1),
Secondary language id ENGLISH_US (9).
Value is 0 if no language strings are supported.
如果没有语言串被支持则值为 0.
This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

Key Name	Key Number	Type	Default Setting
PSKEY_USB_DFU_CLASS_CODES	0x02ca	usbclass	0xfe, 0x01, 0x00

Three bytes giving the class information for an "Interface Descriptor" as defined in Table 9.9 of version 1.1

of the USB specification. This key describes the DFU (Device Firmware Upgrade) interface of this USB device.

三位数组指出一个界面描述符的级别信息，在 USB 说明 1.1 的表 9.9 中有所描述。这一键值描述 USB 设备的 DUF（设备固件升级）界面。

Type usbclass is held as a uint16[3]. The three values are held in the lower byte of each of the array in the order

USB 级别类型为 uint16[3]。三个值分别在各自次序排列的低位。

{ class, subclass, protocol }.

The default value maps to { APPLICATION_SPECIFIC_CLASS, DFU, NO_PROTOCOL }.

默认值对应：

This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

Key Name	Key Number	Type	Default Setting
PSKEY_USB_DFU_PRODUCT_ID	0x02cb	uint16	0xffff

The idProduct field of the local USB device, as defined in Table 9.7 of version 1.1 of the USB specification. This value applies when the local device is acting as a DFU (Device Firmware Upgrade) device.

USB 设备的 idProduct 位，在 USB 说明 1.1 的表 9.7 中有所描述.当本地设备充当一个 DFU 设备时该值被应用。

This must be different from the value held under PSKEY_USB_PRODUCT_ID.

这一值必须与 PSKEY_USB_PRODUCT_ID 不同。

This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

Key Name	Key Number	Type	Default Setting
PSKEY_USB_PIO_DETACH	0x02ce	uint16	none

This PS key sets the PIO line used for USB detach/attach signalling. This must be one of the 2 available interrupt input pins (4 or 5). The absence of this key indicates that this feature is not in use.

这一键值设置用于 USB 分解/连接信号的 PIO 连接。它必须是 2 个可用中断输入引脚中的一个（4 或 5）。这一键值的缺点指出这一功能未被使用。

This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

Key Name	Key Number	Type	Default Setting
PSKEY_USB_PIO_WAKEUP	0x02cf	uint16	none

The PIO line used for USB wakeup signalling in detach mode. The absence of this key indicates that this feature is not in use.

在分离模式用于 USB 唤醒信号的 PIO 连接。这一键值的缺点指出这一功能未被使用。

This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

Key Name	Key Number	Type	Default Setting

PSKEY_USB_PIO_PULLUP	0x02d0	uint16	16
The PIO line used to control the pull-up resistor on the USB D+ line. The absence of this key in the persistent storage indicates that this feature is not in use. 用于控制 USB　D+连接的上拉电阻的 PIO 连接。 This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE. On BlueCore, there are 16 PIO lines, 0 to 15 (depending on package type), but 12 to 15 are not available for the USB pullup. However, an internal pullup can be used by setting this key to 16. 在蓝牙核心有 16 个 PIO 连接，0 到 15（依赖于数据包类型）但是 12 到 15 是不起作用的。但是一个内在上来可以功过设置这个 16 键使用。			

Key Name	Key Number	Type	Default Setting
PSKEY_USB_PIO_VBUS	0x02d1	uint16	none
The PIO line used for USB VBus detection. This must be one of the 2 available interrupt input pins (4 or 5). The absence of this key indicates that this feature is not in use. 用于 USB　VBus 检测的 PIO 连接。它必须是 2 个可用中断输入引脚中的一个（4 或 5）。这一键值的缺点指出这一功能未被使用。 This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.			

Key Name	Key Number	Type	Default Setting
PSKEY_USB_PIO_WAKE_TIMEOUT	0x02d2	uint16	0
The number of seconds for which the PIO wake signal will be asserted following the generation of data that is to be transmitted to the host. The timeout is reset each time new data is generated. 在数据被发送到主设备之后，几秒钟的 PIO 唤醒信号将被维持。超时将在每个新数据产生时复位。 If this value is 0, the signal is asserted indefinitely (or until the host de-asserts detach). 如果值为 0.信号被无限制的维持（或者直到主设备强制中断）。 This key is useful for hosts that are sometimes unable to respond to the wake signal (e.g. laptops when their lids are closed). If wake is asserted when the host cannot process wake and kept asserted until it is able to process the signal, then the host could be woken up to receive an event which is out of date. The host will, of course, have to process any old events when it does reconnect to a device following a wake timeout. 这一键用于主设备有时不能对唤醒信号作出反应（例如，当便携式电脑的盖子被关闭时）如果当主设备不能处理唤醒信号时唤醒信号一直维持并且直到主设备处理该信号，那么主设备可能被唤醒并收到一个过时的事件。主设备将，当然，当其在唤醒超时之后再次连接一个设备，必须处理一些过时事件。 This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE. 这一键值只用在芯片出现它的 USB 端口。见 PSKEY_HOST_INTERFACE 描述。			

Key Name	Key Number	Type	Default Setting
PSKEY_USB_PIO_RESUME	0x02d3	uint16	none

The PIO line used to signal that the USB host wakeup from suspend. The absence of this key indicates that this feature is not in use.

PIO 连接用于 USB 主设备从暂停模式唤醒的信号。不设置这一键值表明这一特性未被使用。

PIO resume is used in place of the bus resume signal for hosts that are unable to respond to the bus signal during suspend e.g. PDAs that power-down the root hub in suspend.

PIO 复位用于代替主设备的线路复位信号，当暂停时不能对线路信号作出反应。例如，在暂停模式，低功耗 PDA 源于集线器。

The PIO line is high to indicate that the host should resume, low otherwise. It remains asserted until activity is restored on the USB.

PIO 连接高用于只是数设备需要复位，否则为低。它依旧维持直到 USB 活跃度恢复。

Setting this PS key is sufficient to enable this feature; no notice is taken of the remote wakeup setting of PSKEY_USB_ATTRIBUTES nor of whether the host has enabled remote wakeup.

设置这一键值充分使能这一特征；没有信息被远端设备唤醒所设置….没有主设备被远端设备激活。

PSKEY_USB_PIO_RESUME is mutually exclusive with PSKEY_USB_PIO_WAKEUP - both can be enabled simultaneously and assigned to the same PIO pin.

PSKEY_USB_PIO_RESUME 与 PSKEY_USB_PIO_WAKEUP 互斥-两者可以同时被激活并分配到同一 PIO 端口。

This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

Key Name	Key Number	Type	Default Setting
PSKEY_USB_BT_SCO_IF_CLASS_CODES	0x02d4	usbclass	0xe0, 0x01, 0x01

Three bytes giving the class information for the USB "Interface Descriptor" (as defined in Table 9.9 of version 1.1 of the USB specification) which contains the SCO endpoints.

3 字节指出 USB“接口描述符”的级别信息。（在 USB 说明书 1.1 版表 9.9 中定义）控制 SCO 终点。

This PS key enables different class codes to be used for the BT SCO interface from the main BT interface (which contains the control, event and acl endpoints and whose class codes are given by PSKEY_USB_BT_IF_CLASS_CODES). The advantage of this is that the host OS can load different drivers to communicate with each of the interfaces. This is expected to be of use for Microsoft's XP OS in which the in-built BT USB driver will not give access to the SCO endpoints.

这一键值使不同级别的代码可以从主 BT 界面用于 BT SCO 界面（包含控制，时间，ACL 终点和 PSKEY_USB_BT_IF_CLASS_CODES 给出的级别编码）这样做的优势在于主设备 OS 可以负载不同的驱动以连接每个界面。它期望用于 Microsoft's XP OS，使得内置 BT USB 设备将不允许在 SCO 端点出入。

Type usbclass is held as a uint16[3]. The three values are held in the lower byte of each of the array in the order:

Usb 级别类型保持为 uint16[3]。三个值保持在每个次序排列的低位。

{ class, subclass, protocol }.

Default value maps to:

{ WIRELESS_CONTROLLER, RF_CONTROLLER, BLUETOOTH_PROGRAMMING }.

This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE.

这一值只有在芯片呈现它的 USB 界面时使用。见 PSKEY_HOST_INTERFACE 描述。

Key Name	Key Number	Type	Default Setting
PSKEY_USB_SUSPEND_PIO_LEVEL	0x02d5	uint16	0

This description covers PSKEY_USB_SUSPEND_PIO_LEVEL, PSKEY_USB_SUSPEND_PIO_DIR, PSKEY_USB_SUSPEND_PIO_MASK.

这一描述包含 **PSKEY_USB_SUSPEND_PIO_LEVEL**, **PSKEY_USB_SUSPEND_PIO_DIR**, **PSKEY_USB_SUSPEND_PIO_MASK**。

To ensure that the limit on power drawn in suspend mode for a bus-powered device is met, BlueCore usually sets all PIO lines to low. However, this may not always be correct and this set of PS keys allows the configuration to be set.

用于确保暂停模式的功率拉动限度，用于一个动力连接设备的出现。蓝牙核型通常设置所有的 **PIO** 连接为低。但是，这一设置不一定总是正确的，这个 **PSkye** 的设置允许设置这一结构。

PSKEY_USB_SUSPEND_PIO_MASK indicates which PIOs should be set when in suspend mode. A 1 in the mask indicates a PIO line to be set according to the corresponding bits in PSKEY_USB_SUSPEND_PIO_LEVEL and PSKEY_USB_SUSPEND_PIO_DIR; a 0 indicates a PIO line that will be left alone.

PSKEY_USB_SUSPEND_PIO_MASK 指出当 **PIO** 在暂停模式时需要被设置。**1** 指出一个 **PIO** 连接被依照 **PSKEY_USB_SUSPEND_PIO_LEVEL** 和 **PSKEY_USB_SUSPEND_PIO_DIR** 相应的位所设置。**0** 指出 **PIO** 连接将被遗弃。

For each bit that is set to 1 in PSKEY_SUB_SUSPEND_PIO_MASK, a 0 (1) for the corresponding bit in PSKEY_USB_SUSPEND_PIO_LEVEL indicates that the line should be set low (high), and a 0 (1) for the corresponding bit in PSKEY_USB_SUSPEND_PIO_DIR indicates that the line will be set for input (output). Note that from BlueCore2 on if a line is set for input the level is still useful: it determines whether a weak pull-up or pull-down will be applied. Therefore for BlueCore 1, PSKEY_USB_SUSPEND_PIO_DIR is not used and any line to be driven is set for output.

在 **PSKEY_SUB_SUSPEND_PIO_MASK** 设置为 **1** 的每一位，在相应的 **PSKEY_USB_SUSPEND_PIO_LEVEL** 位，一个 **0**（**1**）指出连接需要被设置为低（高），相应的 **PSKEY_USB_SUSPEND_PIO_DIR** 位的一个 **0**（**1**）指出连接将被设置为输入（输出）。注意，从 **BlueCore2** 开始，如果一个连接被设置为输入，水平仍然有效：它确定是否将使用一个软上拉或者下拉。因此 **BlueCore 1** 的 **PSKEY_USB_SUSPEND_PIO_DIR** 是不被使用的，任何连接都被输出所驱动。

Any PIO line configured via PSKEY_USB_PIO_PULLUP is handled separately; the bit does not need to be set in any of these three PSKEYs. The keys apply to a bus-powered USB device only; on a self-powered USB device the PIO lines are not modified in suspend mode.

任何被 **PSKEY_USB_PIO_PULLUP** 配置的 **PIO** 连接被分别操作；位不需要被这三个 **pskey** 的任何值所设置。键只应用于一个 **bus-powered USB** 设备；在一个自动力 **USB** 设备，**PIO** 连接不在暂停模式被修正。

The names of these keys are misleading as the same facilities are used to handle BCCMDVARID_WARM_HALT and BCCMDVARID_COLD_HALT, regardless of the host transport.

这三个键的名称容易被误解为同样的用于操作 **BCCMDVARID_WARM_HALT** 和 **BCCMDVARID_COLD_HALT** 忽视主设备传送。

Key Name	Key Number	Type	Default Setting
PSKEY_USB_SUSPEND_PIO_DIR	0x02d6	uint16	0

See PSKEY_USB_SUSPEND_PIO_LEVEL.

Key Name	Key Number	Type	Default Setting
PSKEY_USB_SUSPEND_PIO_MASK	0x02d7	uint16	0xffff
See PSKEY_USB_SUSPEND_PIO_LEVEL.			

Key Name	Key Number	Type	Default Setting
PSKEY_USB_ENDPOINT_0_MAX_PACKET_SIZE	0x02d8	uint8	64
The bMaxPacketSize0 field of the USB Standard Device Descriptor, as defined in Table 9.7 of version 1.1 of the USB specification. **USB 标准设备描述符的 bMaxPacketSize0 区域。在 USB 说明 1.1 的表 7.9 中定义。** Only values 8, 16, 32 and 64 are valid for this field. **只有 8，16，32，64 对于这一区域有效。** This value is only used if the chip is presenting its USB interface. See the description of PSKEY_HOST_INTERFACE. **这一值只有在芯片呈现它的 USB 界面时使用。见 PSKEY_HOST_INTERFACE 描述。**			

Key Name	Key Number	Type	Default Setting
PSKEY_USB_CONFIG	0x02d9	uint16	0x30
This key modifies the behaviour of the USB interface code. It should only be configured on advice from CSR. **这一键修改 USB 界面编码行为。只有在 CSR 的建议下才可以被修改。**			

Key Name	Key Number	Type	Default Setting
PSKEY_RADIOTEST_ATTEN_INIT	0x0320	uint16	0
Initial value of the attenuator setting for radio tests. This is ignored by the main Bluetooth stack. **无线传输测试衰减设置的初始值。被主蓝牙堆栈忽视。**			

Key Name	Key Number	Type	Default Setting
PSKEY_RADIOTEST_FIRST_TRIM_TIME	0x0326	TIME	5 * SECOND
The time from the start of a test till the first IQ trim auto-calibration is done. A value of 0 disables the automatic calibration completely during the test. A calibration is still done before the test starts. **从测试开始到 IQ 整理校准结束的时间。0 值使得测试期间的自动校准完全失效。在测试开始前，一个校准仍在完成。**			

Key Name	Key Number	Type	Default Setting
PSKEY_RADIOTEST_SUBSEQUENT_TRIM_TIME	0x0327	TIME	0
In normal operation, the chip schedules regular trims of the IQ block to prevent degradation of the radio performance. These are placed so as to avoid interfering with normal radio traffic. This is not possible in			

radiotest mode when the transmissions are back to back, hence this key exists to choose the most suitable behaviour.
在正常运转情况下，芯片时间表有序的整理 IQ 块以预防无线传输性能的退化。它们被放置用于消除常规无线传输的干扰。在连续发送时，这不可能在无线电测试模式。因此这一键存在选择最大匹配行为。
Once the first IQ trim auto calibration is done in test mode, then subsequent trims are done at regular intervals with the period being given by this key, which is a time in microseconds. If the value is 0 then no subsequent trim is performed.
一旦在测试模式中第一次 IQ 校准整理完成，那么接下来的整理将根据这一键值的设置的间隔有序的进行，时间在百分之一秒。如果值为 0 则不执行接下来的整理行为。
If PSKEY_RADIOTEST_FIRST_TRIM_TIME is 0 then no trims are done during the test regardless of the setting of this key.
如果 **PSKEY_RADIOTEST_FIRST_TRIM_TIME** 是 0 那么在测试阶段没有整理行为实施，无论这一键值如何设置。

Key Name	Key Number	Type	Default Setting
PSKEY_RADIOTEST_LO_LVL_TRIM_ENABLE	0x0328	bool	TRUE

If IQ trim is enabled (PSKEY_IQ_TRIM_ENABLE), enables trimming of the value for the register ANA_LO_ENABLE; otherwise, has no effect. This trimming takes place before the start of each test.
如果 IQ 整理被激活(PSKEY_IQ_TRIM_ENABLE)，将整理 ANA_LO_ENABLE 记录的值，否则，如果没见效，这一整理发生在每个测试开始之前。
(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_RADIOTEST_DISABLE_MODULATION	0x032c	bool	FALSE

If enabled, do not use modulation during any of the radiotest_txdata routines. Clearly, this is no use for transmitting packets; it is present to provide a low level way of showing the radio carrier behaviour.
如果被激活，在任何 radiotest_txdata 程序期间将不使用调试。明显的，这对于传送数据包没有作用，它在提供一个展示无线发送行为的低标准方式之前。
Has no effect on any other function.
对其它函数没有任何影响。
(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_RFCOMM_FCON_THRESHOLD	0x0352	uint16	4

The on-chip RFCOMM stack layer takes blocks of memory from the chip's pool memory manager. The layer uses this pskey and PSKEY_RFCOMM_FCOFF_THRESHOLD as thresholds for toggling its flow control on and off. The two pskey values provide hysteresis.
芯片上的 RFCOMM 堆栈层从芯片集中存储管理器携带存储块。曾使用这一键和 **PSKEY_RFCOMM_FCOFF_THRESHOLD** 作为它流控制开关的触发器开端。两个 PSKEY 的值规定迟滞。
The layer ensures that at least this many pool memory blocks of size suitable for use by a DLC (server

channel) are available before it allows RFCOMM data to flow onto the chip from RFCOMM peers.
层确保至少这些多数集中存储区的尺寸适合由一个 DLC 使用（服务器信道），在它允许 RFCOMM 数据从 RFCOMM peers 流到芯片上时是有价值的。
The layer is a serious memory hog, so the value of this key needs to be chosen with care. Setting the value too high causes RFCOMM to stick in its FCOFF state, in which case no data will flow.
层是一个严重的寄存器贪婪者，所以这一键值需要被慎重选择。设置的太高将导致 RTCOMM 进入 FCOFF 模式，从而导致无数据流动。
This value must ALWAYS be set to a value HIGHER than PSKEY_RFCOMM_FCOFF_THRESHOLD.
这一值必须永远被设置为一个比 PSKEY_RFCOMM_FCOFF_THRESHOLD 高的值。

Key Name	Key Number	Type	Default Setting
PSKEY_RFCOMM_FCOFF_THRESHOLD	0x0353	uint16	3

See the description of PSKEY_RFCOMM_FCON_THRESHOLD.
见 PSKEY_RFCOMM_FCON_THRESHOLD 描述。
When fewer than this number of pool memory blocks is available the RFCOMM layer sends FCOFF to peer RFCOMMs, so signalling that the peers should stop sending data to the local RFCOMM layer.
当少于这一可利用的集中存储块数据时，RFCOMM 发送 FCOFF 到同等的 RFCOMM，因此发送同等设备需要停止发送数据到本地 RFCOMM 层饿信号。
Setting this value too low could cause rfcomm to panic from heap exhaustion.
设置这一值过低可能导致 rfcomm 大量枯竭。
This must be lower than PSKEY_RFCOMM_FCON_THRESHOLD.
这一值必须低于 PSKEY_RFCOMM_FCON_THRESHOLD

Key Name	Key Number	Type	Default Setting
PSKEY_IPV6_STATIC_ADDR	0x0354	uint16[]	none

The static IPv6 address assigned to the local device.
分配到本地设备的静态 IPv6 地址。
The address is stored as eight 16-bit words corresponding directly to the conventional uncompressed text representation of IPv6 addresses. For example, the IPv6 address 1234:0:0:0:0:0:0:5678 is stored as { 0x1234, 0, 0, 0, 0, 0, 0, 0x5678 }.
例如，IPv6 地址 1234:0:0:0:0:0:0:5678 被储存为{ 0x1234, 0, 0, 0, 0, 0, 0, 0x5678 }
If this key is not defined then the local device's IPv6 addresses will only include the link-local address derived from the Bluetooth address and any auto configured address.
如果这一键值未被定义，那么本地设备的 IPv6 地址将值包括来自蓝牙地址的本地连接地址和一些配置地址。

Key Name	Key Number	Type	Default Setting
PSKEY_IPV4_STATIC_ADDR	0x0355	uint32	none

The static IPv4 address assigned to the local device.
被分配到本地设备的静态 IPv4 地址。
The address is stored as a 32-bit value in standard network form. For example, the IPv4 address 192.168.1.2 is stored as 0xc0a80102.
在标准网络形态下，地址被储存为一个 32 位值。例如，IPv4 地址 192.168.1.2 被储存为 0xc0a80102。

If this key is not defined then the local device's IPv4 addresses will only include a randomly-derived link-local address and any autoconfigured address.

如果这一键未被定义那么本地设备的 IPv4 地址将只随意本地连接地址和一些配置地址。

If this key is defined, PSKEY_IPV4_STATIC_SUBNET_MASK should also be defined.

如果这一键被定义， PSKEY_IPV4_STATIC_SUBNET_MASK 也需要被定义。

Key Name	Key Number	Type	Default Setting
PSKEY_IPV6_STATIC_PREFIX_LEN	0x0356	uint8	none

The static IPv6 prefix length (applied w.r.t. PSKEY_IPV6_STATIC_ADDR) assigned to the local device

静态 IPv6 前缀长度（应用 w.r.tPSKEY_IPV6_STATIC_ADDR）分配本地设备。

The prefix length is measured in bits.

前缀长度被校准 in bits

This key should be defined if PSKEY_IPV6_STATIC_ADDR is.

如果 PSKEY_IPV6_STATIC_ADDR 被定义，这一键值也需要被定义。

If this key is defined, PSKEY_IPV6_STATIC_ROUTER_ADDR should also be defined.

如果这一键值被定义 PSKEY_IPV6_STATIC_ROUTER_ADDR 也需要被定义。

Key Name	Key Number	Type	Default Setting
PSKEY_IPV6_STATIC_ROUTER_ADDR	0x0357	uint16[]	none

The static IPv6 address assigned to the subnet router (gateway).

被分配到子网路由（网管）的静态 IPv6 地址。

The address is stored as eight 16-bit words corresponding directly to the conventional uncompressed text representation of IPv6 addresses. For example, the IPv6 address 1234:0:0:0:0:0:cafe is stored as { 0x1234, 0, 0, 0, 0, 0, 0, 0xcafe }.

例如，IPv6 地址 1234:0:0:0:0:0:cafe 被储存为{ 0x1234, 0, 0, 0, 0, 0, 0, 0xcafe }

This key should be defined if PSKEY_IPV6_STATIC_PREFIX_LEN is. The subnet router and the local device should share the same prefix.

如果 PSKEY_IPV6_STATIC_PREFIX_LEN 被定义那么这一键需要被定义。子网路由和本地是被需要共享同一前缀。

Key Name	Key Number	Type	Default Setting
PSKEY_IPV4_STATIC_SUBNET_MASK	0x0358	uint32	none

The static IPv4 subnet mask (applied w.r.t. PSKEY_IPV4_STATIC_ADDR) assigned to the local device.

分配到本地设备的静态 IPv4 子网掩膜。

The mask is stored as a 32-bit value in standard network form. For example, the subnet mask 255.255.248.0 is stored as 0xfffff800.

在标准网络形态下，掩膜被储存为一个 32 位值。例如，网络掩膜 255.255.248.0 被储存为 0xfffff800。

This key should be defined if PSKEY_IPV4_STATIC_ADDR is.

如果 PSKEY_IPV4_STATIC_ADDR 被定义，这一键值需要被定义。

If this key is defined, PSKEY_IPV4_STATIC_ROUTER_ADDR should also be defined.

如果这一键值被定义，PSKEY_IPV4_STATIC_ROUTER_ADDR 也需要被定义。

Key Name	Key Number	Type	Default Setting
PSKEY_IPV4_STATIC_ROUTER_ADDR	0x0359	uint32	none

The static IPv4 address assigned to the subnet router (gateway).
静态 IPv4 地址分配给子网的路由器（路径）。
The address is stored as a 32-bit value in standard network form. For example, the IPv4 address 192.168.1.254 is stored as 0xc0a801fe.
这个地址在标准网络结构中被存储为一个 32-位的值。例如，IPv4 地址 192.168.1.254 被存储为 0xc0a801fe。
This key should be defined if PSKEY_IPV4_STATIC_SUBNET_MASK is. The subnet router and the local device should be on the same subnet.
如果 PSKEY_IPV4_STATIC_SUBNET_MASK 是该键值就应该被定义。子（分支）网络路由器和本地装置应该在同样的子（分支）网络上。

Key Name	Key Number	Type	Default Setting
PSKEY_MDNS_NAME	0x035a	char[]	none

The name assigned to the local device for the purposes of multicast DNS.
为达到多点传送的目标该名称被分配到本地装置。
The name must not include a trailing NUL, and must not be more than 16 characters long. It must be a label, not be a FQDN (i.e. must not contain dots). All letters must be in lowercase.
该名称一定不能包括一个尾随的 NUL，也一定不能多于 16 字符长度。它必须是一个标签，而不能是一个 FQDN（不能包括点）。所有的字母一定要是小写字母。

Key Name	Key Number	Type	Default Setting
PSKEY_FIXED_PIN	0x035b	uint8[]	none

The fixed PIN assigned to the local device. This must have a length greater than zero (and less than 17).
稳定的 PIN 分配给本地装置。这必须有一个比 0 长的距离（小于 17）。

Key Name	Key Number	Type	Default Setting
PSKEY_MDNS_PORT	0x035c	uint16	5353

The port number to be used by the local device for multicast DNS.
通道数被用在本地装置多点传送 DNS 上。

Key Name	Key Number	Type	Default Setting
PSKEY_MDNS_TTL	0x035d	uint8	1

The TTL (Hop Limit for IPv6) to be used by the local device for multicast DNS.
TT 了（限制 IPv6）被用在本地装置多点传送 DNS 上。

Key Name	Key Number	Type	Default Setting
PSKEY_MDNS_IPV4_ADDR	0x035e	uint32	0xe00000fb

The IPv4 address to be used by the local device for multicast DNS.
IPv4 地址被用在本地装置多点传送 DNS 上。
The address is stored as a 32-bit value in standard network form. For example, the IPv4 address 224.0.0.251 is stored as 0xe00000fb.
这个地址在标准网络结构中被存储为一个 32-位的值。例如，IPv4 地址 224.0.0.251 被存储为 0xe00000fb。

Key Name	Key Number	Type	Default Setting
PSKEY_ARP_CACHE_TIMEOUT	0x035f	uint16	120

The time in seconds before an ARP cache entry is considered stale and hence is rechecked (via an ARP request) when it is next used.
ARP 缓存器入口前的一小段时间被认为是无效的，因此当它下一次被使用时会被核对。

Key Name	Key Number	Type	Default Setting
PSKEY_HFP_POWER_TABLE	0x0360	uint16[]	none

This PS key configures the HFP library power table.
该 PS 键值配置 HFP 库功率列表。

Key Name	Key Number	Type	Default Setting
PSKEY_SLOW_CLOCK_FILTER_DIVIDER	0x0390	uint16	3333

The reciprocal of the fraction of the currently calibrated slow clock period by which the filtered value must differ from the calibrated period in order to cause a recalibration. The value default value corresponds to 300 ppm.
目前的校准时钟周期缓慢，其中筛选值必须来源于不同的校准时期，以造成校准部分的倒数。该值的默认值对应于 300 百万分之一。
See also the description of PSKEY_SLOW_CLOCK_FILTER_SHIFT.
参见 PSKEY_SLOW_CLOCK_FILTER_SHIFT 的描述。

Key Name	Key Number	Type	Default Setting
PSKEY_SLOW_CLOCK_FILTER_SHIFT	0x0391	uint16	5

The filter constant applied to instantaneous values of the slow clock period sampled in sniff is 1/2^PSKEY_SLOW_CLOCK_FILTER_SHIFT. When the difference between the last period from the slow clock calibration and the filtered value exceeds the calibrated value divided by PSKEY_SLOW_CLOCK_FILTER_DIVIDER, a recalibration of the slow clock is performed.
过滤器始终适用于缓慢时钟阶段样本在嗅探器内的瞬时值是 1/2^PSKEY_SLOW_CLOCK_FILTER_SHIFT。在缓慢时钟校准和筛选值在上一阶段之间的不同超过校准值时除以 PSKEY_SLOW_CLOCK_FILTER_DIVIDER,该缓慢时钟的重新校准将被执行。

Key Name	Key Number	Type	Default Setting
PSKEY_LO_VCO_STANDBY	0x0392	bool	FALSE

This key is for CSR's internal use for diagnosing radio issues. This key has no effect on some versions of firmware.

该键值在 CSR 公司内部用于诊断无线电问题。该键值对一些固件的版本没有影响。

DO NOT CHANGE THE VALUE OF THIS KEY UNLESS INSTRUCTED TO DO SO BY CSR.

在 CSR 公司指示这样做的情况下才可以改变该键值的值。

This key controls whether critical radio components are kept in standby mode between packets or allowed to turn off. Keeping the components in standby is the safer option. The difference in power consumption between the two modes is less than 1% when the radio is active and makes no difference when there is no radio activity. All testing and qualification will be run at the default setting.

该键值控制关键的无线电部件在数据包之间是保持待机模式还是允许关闭。保持部件在待机状态下是较安全的部件。在无线电是活动时，功率消耗上两个模式之间的差要小于 1%；在没有无线电活动时应该没有任何差值。所有的测试和应用将运行在默认设置上。

Changing the value of this key will invalidate qualification and all testing results. A thorough series of tests will need to be run to ensure the new value is correct. A normal test suite is unlikely to pick up problems. Qualification tests are unlikely to pick up problems. Tests will need to be run on a variety of modules, with chips from a variety of batches, at a range of environmental conditions (including a range of temperatures and temperature gradients).

改变这一键值将使所有测试结果失效。将需要一系列的测试以保证新值的正确性。一个普通的测试组未必可以解决问题。条件测试不太可能解决问题。测试需要在多钟模式下进行，需要多批次的芯片，在一定范围的环境条件下进行（包括温度和温度梯度范围）。

This key has no effect on the operation of the radio in radiotest test modes. It only affects operation during real links. This makes testing tricky.

这一键值不影响测试模式的无线传输运转。它只在真实连接下影响操作。它使得测试需要技巧性。

Key Name	Key Number	Type	Default Setting
PSKEY_LO_DIV_LATCH_BYPASS	0x0393	bool	FALSE

This key is for CSR's internal use for diagnosing radio issues. This key has no effect on some versions of firmware.

这一键值在 CSR 内部使用，用于诊断无线传输结果。这一键值对一些形式的硬件无影响。

DO NOT CHANGE THE VALUE OF THIS KEY UNLESS INSTRUCTED TO DO SO BY CSR.

除非 CSR 的指导，否则不要改变这一键值！

This key selects between two ways of controlling a critical radio component. CSR will make a determination as to the best setting and make this the default. All testing and qualification will be run at this default setting.

这一键值选择两种方法之一控制无线传输的关键部分。CSR 将确定一个最好的设置并使其成为默认值。所有的测试和限制将在这一默认条件下进行。

Changing the value of this key will invalidate qualification and all testing results. A thorough series of tests will need to be run to ensure the new value is correct. A normal test suite is unlikely to pick up problems. Qualification tests are unlikely to pick up problems. Tests will need to be run on a variety of modules, with chips from a variety of batches, at a range of environmental conditions (including a range of temperatures and temperature gradients).

改变这一键值将使所有测试结果失效。将需要一系列的测试以保证新值的正确性。一个普通的测试组未必可以解决问题。条件测试不太可能解决问题。测试需要在多钟模式下进行，需要多批次的芯片，在一定范

围的环境条件下进行（包括温度和温度梯度范围）。

Key Name	Key Number	Type	Default Setting
PSKEY_MR_TX_IF_ATTEN_OFF_TEMP	0x0394	int16	55

This PSKEY controls the temperature above which the TX IF attenuator is turned off when using EDR. The units of this key are degrees Celsius. The value should correspond to the discontinuity in the temperature values in PSKEY_TEMPERATURE_VS_DELTA_TX_BB_MR_PAYLOAD and PSKEY_TEMPERATURE_VS_DELTA_TX_BB_MR_HEADER.

这一键值控制当使用 **EDR** 时 **TXIF** 衰减器关闭的温度。这一键值的温度为摄氏度。这一值需要与 **PSKEY_TEMPERATURE_VS_DELTA_TX_BB_MR_PAYLOAD** 和 **PSKEY_TEMPERATURE_VS_DELTA_TX_BB_MR_HEADER** 温度相符。

The basic rate setting is controlled by PSKEY_ANALOGUE_ATTENUATOR.

基本比率设置受到 **PSKEY_ANALOGUE_ATTENUATOR** 控制。

(The abbreviation MR for Medium Rate is used consistently in place of EDR for Enhanced Data Rate throughout the PS keys as many were introduced before the abbreviation EDR came into use.)

在 **EDR** 缩写引入之前，**Medium Rate** 缩写的 **MR** 一贯用于代替 **EDR**。

Key Name	Key Number	Type	Default Setting
PSKEY_PIO_WAKEUP_STATE	0x039f	uint16	0xFFFF

Controls the state for each PIO line (0 to 15) that will wake the chip from deep sleep. Each bit corresponds to a PIO line. Setting a bit high will result in the chip waking when that line goes high, setting the bit low will cause the chip to wake when the line goes low. The PIO lines must already have been configured to wake the chip using either PSKEY_DEEP_SLEEP_PIO_WAKE or the VM.

控制 **PIO** 连接（**0** 到 **15**）的状态，将把芯片从深睡眠状态唤醒。每一位对应一个 **PIO** 连接。设置某一位为高会导致当相应连接为高状态时芯片唤醒，设置某位为低导致当相应连接为低状态时芯片唤醒。**PIO** 连接必须已经被 **PSKEY_DEEP_SLEEP_PIO_WAKE** 或者 **VM** 配置为唤醒芯片。

Key Name	Key Number	Type	Default Setting
PSKEY_ANALOGUE_ATTENUATOR	0x03a7	bool	FALSE

Controls the use of an analogue attenuator after the transmit DAC. Only to be set on advice from CSR.

控制一个在发送 **DAC** 后的一个模拟衰减器的使用。只有在 **CSR** 的建议下才能改变。

(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)

Key Name	Key Number	Type	Default Setting
PSKEY_TX_PRE_LVL_CLASS1	0x03a8	uint8	8

Sets the level of the transmitter pre-amplifier when used with class 1 operation. Otherwise the same as PSKEY_TX_PRE_LVL.

设置当使用 **class1** 级别运转时发送装置前置放大器的水平。其余与 **PSKEY_TX_PRE_LVL** 相同。

Key Name	Key Number	Type	Default Setting
PSKEY_RX_MR_EQ_TAPS	0x03a9	uint16[]	0x0EF3, 0x0F19, 0x1D13,

			0x4BB4

Set the default value for the four RX_MR_EQ_TAPS configuration registers used for Enhanced Data Rate reception. Change only on advice from CSR.
设置四个用于增强数据比率接收的 RX_MR_EQ_TAPS 结构寄存器的默认值。只有在 CSR 的建议下才能改变。
(The abbreviation MR for Medium Rate is used consistently in place of EDR for Enhanced Data Rate throughout the PS keys as many were introduced before the abbreviation EDR came into use.)
在 EDR 缩写引入之前，Medium Rate 缩写的 MR 一贯用于代替 EDR。

Key Name	Key Number	Type	Default Setting
PSKEY_TEMPERATURE_VS_DELTA_TX_BB_MR_PAYLOAD	0x03aa	temperature_calibration[]	{ -30, 8 }, { 0, 4 }, { 25, 0 }, { 54, 0 }, { 55, 10 }, { 85, 4 }, { 105, 4 }

The value is a table in the same format as PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA. The values of the table (even-numbered 16-bit words) in this case are an adjustment applied separately to both the top nybbles of PSKEY_TX_FILTER_CONFIG when transmitting the payload of a packet at Enhanced Data Rate; hence they must lie in the range -15 to 15. The adjusted nybbles will be limited to the range 0 to 15.
这个值是一个与 PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA 格式相同的表格。表格中的值是一个当在增强数据比例传送数据报头时用于调整 PSKEY_TX_FILTER_CONFIG 顶部半位单元个别到一般的值；因此它们必须在-15 到 15 范围内。调整过的 nybbles 将被限制在 0 到 15 范围内。
Note that, using the default values, there is a discontinuity in the values in this key at 55 deg C, which corresponds to switching off the TX IF attenuator (see PSKEY_MR_TX_IF_ATTEN_OFF_TEMP). Since BlueCore can only measure temperatures at a resolution of 1 deg C, this is represented by two consecutive values at 54 and 55 deg C.
注意，使用默认值，在这一键值的 55degC 将有一个复合切断 TXIF 衰减器的中断，（见 PSKEY_MR_TX_IF_ATTEN_OFF_TEMP）当蓝牙核心在 1degC 可以值测量温度，这被两个连续的值 54 和 55degC 描述。
(The abbreviation MR for Medium Rate is used consistently in place of EDR for Enhanced Data Rate throughout the PS keys as many were introduced before the abbreviation EDR came into use.)
在 EDR 缩写引入之前，Medium Rate 缩写的 MR 一贯用于代替 EDR。

Key Name	Key	Type	Default

	Number		Setting
PSKEY_TEMPERATURE_VS_DELTA_TX_BB_MR_HEADER	0x03ab	temperature_calibration[]	{ -30, 5 }, { 0, 4 }, { 25, 0 }, { 54, -4 }, { 55, 5 }, { 85, 4 }, { 105, 4 }

The value is a table in the same format as PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA. The values of the table (even-numbered 16-bit words) in this case are an adjustment applied separately to both the top nibbles of PSKEY_TX_FILTER_CONFIG when transmitting the header of a packet at Enhanced Data Rate; hence they must lie in the range -15 to 15. The adjusted nybbles will be limited to the range 0 to 15.

这个值是一个与 **PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA** 格式相同的表格。表格中的值是一个当在增强数据比例传送数据报头时用于调整 **PSKEY_TX_FILTER_CONFIG** 顶部半位单元个别到一般的值；因此它们必须在**-15** 到 **15** 范围内。调整过的 **nybbles** 将被限制在 **0** 到 **15** 范围内。

Note that, using the default values, there is a discontinuity in the values in this key at 55 deg C, which corresponds to switching off the TX IF attenuator (see PSKEY_MR_TX_IF_ATTEN_OFF_TEMP). Since BlueCore can only measure temperatures at a resolution of 1 deg C, this is represented by two consecutive values at 54 and 55 deg C.

注意，使用默认值，在这一键值的 **55degC** 将有一个复合切断 **TXIF** 衰减器的中断，（见 **PSKEY_MR_TX_IF_ATTEN_OFF_TEMP**）当蓝牙核心在 **1degC** 可以值测量温度，这被两个连续的值 **54** 和 **55degC** 描述。

(The abbreviation MR for Medium Rate is used consistently in place of EDR for Enhanced Data Rate throughout the PS keys as many were introduced before the abbreviation EDR came into use.)

在 **EDR** 缩写引入之前，**Medium Rate** 缩写的 **MR** 一贯用于代替 **EDR**。

Key Name	Key Number	Type	Default Setting
PSKEY_TEMPERATURE_VS_DELTA_TX_PRE_LVL_MR	0x03ac	temperature_calibration[]	{ 0, 0 }

The value is a table in the same format as PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA. The values of the table (even-numbered 16-bit words) in this case are an adjustment applied to PSKEY_TX_PRE_LVL during Enhanced Data Rate transmissions.

这个值是一个 **PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA** 格式相同的表格。这一表格的值是一个在增强数据速率传输模式下用于 **PSKEY_TX_PRE_LVL** 的调整的值。

(The abbreviation MR for Medium Rate is used consistently in place of EDR for Enhanced Data Rate throughout the PS keys as many were introduced before the abbreviation EDR came into use.)

在 EDR 缩写引入之前，Medium Rate 缩写的 MR 一贯用于代替 EDR。

Key Name	Key Number	Type	Default Setting
PSKEY_TEMPERATURE_VS_DELTA_EXTERNAL_PA_CLASS1	0x03ad	temperature_calibration[]	{ 0, 0 }
Table in the same form as PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA used for the EXTERNAL power amplifier when transmitting at class 1 powers. (The external PA is not used for lower power transmissions.) The value of this key is only used when the class 1 bit is set in PSKEY_LC_ENHANCED_POWER_TABLE. 与 **PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA** 有相同结构的列表在发送 **1** 等级功率时用于 **EXTERNAL** 功率扩音器。（外部的 **PA** 不用于低功率传输。）该键值的值不仅仅用在等级 **1** 设置在 **PSKEY_LC_ENHANCED_POWER_TABLE** 上时。			

Key Name	Key Number	Type	Default Setting
PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA_CLASS1	0x03ae	temperature_calibration[]	{ -40, -3 }, { -20, -1 }, { 10, -1 }, { 20, 0 }, { 30, 0 }, { 50, 2 }, { 60, 4 }, { 70, 7 }, { 80, 9 }
Table in the same form as PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA used when transmitting at class 1 powers. The value of this key is only used when the class 1 bit is set in PSKEY_LC_ENHANCED_POWER_TABLE. 与 **PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA** 有相同结构的列表用于发送 **1** 等级功率。该键值的值不仅仅用在等级 **1** 设置在 **PSKEY_LC_ENHANCED_POWER_TABLE** 上时。			

Key Name	Key Number	Type	Default Setting
PSKEY_CLASS1_TX_CONFIG2	0x03af	uint16	0x8807
The value of the transmit configuration in packets sent at class 1 powers. For CSR use only. 数据包中传送配置的值发送至等级 **1** 功率。仅适用于 **CSR** 公司。			

Key Name	Key Number	Type	Default Setting
PSKEY_CLASS1_IQ_LVL	0x03b0	uint16	0x1818

The value of the IQ demand level to be used when transmitting packets (both header and payload) at Enhanced Data Rate. Both bytes should be set. For CSR use only.

IQ 值的需求水平用于在 Enhanced Data Rate 传送数据包。两个字节都应设置。仅适用于 CSR 公司。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG2	0x03b1	uint8	2

Configuration for UART rx sampling point in case there are any problems with fast (just below 4Mbps) UARTs.

也许 UART rx 配置的抽样调查点与快的（仅低于 4Mbps）UARTS 有问题。

Currently 2 bits are defined. Bit 0 is prefetch, bit 1 is RX offset. The default value is 2, ie RX offset enabled, prefetch disabled.

目前 2 位已被定义。0 位是 prefetch，1 位是 RX 补偿。省略补充是 2，如 RX 补充激活，prefetch 禁用。

Key Name	Key Number	Type	Default Setting
PSKEY_MR_PIO_CONFIG	0x03b2	uint16	0

Additional configuration for PIO lines used for hardware from BlueCore4 which supports Enhanced Data Rate (EDR). Each bit specifies a different feature.

在 BlueCore4 中 PIO 线用于硬件的额外构造是支持 Enhanced Data Rate (EDR)的。每个位指定一个不同的特性。

Currently only bit 0 is defined. If it is set, any use of PIO 1 for activating an external power amplifier (as configured by PSKEY_TXRX_PIO_CONTROL) is tied to the enhanced data rate packet transmission: the PIO line goes high when the modulation scheme switches to EDR's Phase Shift Keying (PSK). If it is clear, the default behaviour obtains: the PIO goes high when the packet header starts. This bit is mostly useful for test purposes.

目前只有 0 位是被定义的。如果它被设置，为激活 PIO1 的一个外置功率放大器的任何应用（如配置通过 PSKEY_TXRX_PIO_CONTROL），它是与提高数据传输速度率相联系的：PIO 线在调制方案切换到 EDR's Phase Shift Keying (PSK)时速度提高。如果它是清晰的，默认行为获得：PIO 在数据包顶端开始时速度提高。该位对测试作用很有帮助。

Key Name	Key Number	Type	Default Setting
PSKEY_TX_AVOID_PA_CLASS1_PIO	0x03b3	uint16	0xFFFF

This PS key is only used for class 1 operation, i.e. when PSKEY_LC_ENHANCED_POWER_TABLE has entries with the class 1 bit set. If no entry in the table is set for class 1 operation, the value of this PS key is ignored.

该 PS 值只用于 1 等级运作，如，在 PSKEY_LC_ENHANCED_POWER_TABLE 有相在 1 等级位组时。如果没有列表中的条目为等级 1 运作，该 PS 键值将被忽视。

The value gives a PIO line which will be asserted during a transmission when the external power amplifier is not in use. The value 1 is not allowed, as it is always used to activate the external PA. Any other PIO line may be used. If the value is 0, it indicates that PIO 0 will be used for this purpose, in addition to any use

specified by PSKEY_TXRX_PIO_CONTROL during receive operations.
该值在外部功率放大器不被使用时给出一个 **PIO** 线，它将在传送期间被声称，值 **1** 是不被允许的，它一直是用来激活外部的 **PA** 的。任何其他 **PIO** 线都可能被应用。如果该值为 **0**，它标志 **PIO0** 将应用于该目标，另外任何 **PSKEY_TXRX_PIO_CONTROL** 的使用说明都要通过接收运作。
A value greater than 15 indicates that no PIO will be asserted when the external PA is not in use.
一个值在大于 **15** 时表示没有 **PIO** 会在外部的 **PA** 被使用时被宣称。
Note that the PIO line is asserted by software, so does not have the accuracy of the hardware used for the external PA. However, the PIO is guaranteed to be asserted at least while the radio is in use for transmission.
注意，**PIO** 线是通过软件被宣称的，所以硬件对外部 **PA** 的应用是没有准确性的。然而，**PIO** 是在无线电传输时担保至少被宣称的。

Key Name	Key Number	Type	Default Setting
PSKEY_TRANSMIT_OFFSET_CLASS1	0x03b4	int16	-16

Offset used for transmit, in units of 62.5 kHz, used when the radio is transmitting at a class 1 power with an external amplifier. This is required for entries in PSKEY_LC_ENHANCED_POWER_TABLE where the class 1 bit is set.
补偿在 **62.5** 千赫单位里是作传输用的，无线电在等级 **1** 功率与一个外部放大器连接时使用。这要求 **PSKEY_LC_ENHANCED_POWER_TABLE** 中的相要设置在等级 **1** 位。
Otherwise, the behaviour of this PS key is similiar to PSKEY_TRANSMIT_OFFSET.
另外，该 **PS** 值的行为与 **PSKEY_TRANSMIT_OFFSET** 相同。

Key Name	Key Number	Type	Default Setting
PSKEY_INITIAL_PIO_STATE	0x03b5	uint16[]	none

This key may be used to set the initial state of the PIO pins prior to the VM application running. The key is an array of uint16s which can be considered to have the following structure:-
该键值可能用于 **PIO** 引脚在 **VM** 应用运行先的初始状态的设置。该键值可被认为是一个具有一下结构的 **unit16s** 数组：

```
struct {
  uint16 mask;
  uint16 direction;
  uint16 level;
  uint16 bias;
  uint16 buskeep_en;
  uint16 disable_pull; }
```

Each word within the structure can be considered to be an array of bits corresponding to individual PIO pins.
在该结构中的每一个字节都可能被视为一个位的数组，它相当于个别的 **PIO** 引脚。
The mask word is used to control which PIO pins are controlled by this key. Note that PIOs which are assigned to firmware functions (including those masked by PSKEY_PIO_PROTECT_MASK) are also masked out.
屏蔽字节用于控制受该键值控制的 **PIO** 线。注意，**PIOs** 被分配到固件的功能（包括那些屏蔽在

PSKEY_PIO_PROTECT_MASK）也是被屏蔽出来的。

The direction word is used to control pin direction:- 0 = input 1 = output

方向字节用于控制 pin 方向：- 0 = input 1 = output

The level word is optional and controls pin output levels:- 0 = low 1 = high From BlueCore2-External on, for pins set as inputs by the direction word, the corresponding bits in this word determine the direction of a weak pull device (0=pull-down, 1=pull-up). If the word is not present, pins will be set to their default power-on levels.

水平字节是可选择和控制的引脚输出水平：- 0 =低 1 = 高 从蓝牙芯片 2 的外部中，通过方位字节为引脚设置了输入,该相应的位在字节中确定一个易毁坏的拉动装置的方位（0=下拉，1=上拉）。如果该字节是不存在的，引脚将被设置为他们默认的功率水平。

The bias word is optional and controls the strength of the bias applied to pins configured as input:- 0 = weak bias 1 = strong bias If the word is not present, pins will be set to their default power-on bias strength.

该偏压字节是可选择和控制适用于引脚偏压的力量的，配置如输入：-0=软弱的偏压 1=强壮的偏压 如果该字节不存在，引脚将被设置为它们默认的功率偏压力量。

The buskeep_en word is optional and controls whether "bus-keeper" functionality (see PSKEY_BCSP_PULL_CONTROL) is enabled for pins configured as inputs, on chips which support this:- 0 = bus-keeper disabled 1 = bus-keeper enabled If the word is not present, no bus-keepers will be enabled.

buskeep_en 字节是可选择和控制是否"bus-keeper"功能性（参见 PSKEY_BCSP_PULL_CONTROL）是为引脚配置作为输入激活的，在支持这些的芯片上：-0 = bus-keeper disabled 1 = bus-keeper 如果该字节是不存在的，没有 bus-keepers 将被激活。

The disable_pull word is optional and controls whether the internal pull device is disabled (see PSKEY_BCSP_PULL_CONTROL) for pins configured as inputs, on chips which support this. (These bits have no effect on pins configured as outputs.) 0 = pull device enabled 1 = pull device disabled If the word is not present, pull devices will be enabled. NOTE: disabling pull devices when pins are not driven externally can lead to excessive current consumption and potentially damage the chip.

disable_pull 字节是可选择和控制是否内部拉动装置（参见 PSKEY_BCSP_PULL_CONTROL）是为引脚配置作为输入禁用的，在支持这些的芯片上。（这些位对银奖配置作为输出没有影响）0 = 拉动装置激活 1 = 拉动装置禁用 如果该字节是不存在的，拉动装置将被激活。注：在引脚驱动外部没有可导致过量的电流消耗时和可能会损坏芯片器件时是禁用拉动装置的。

Example -------

To set PIO 3 as an output driving a high signal and PIO 5 as an input with strong-bias set the key to (0x0028,0x0008,0x0008,0x0020).

设置 PIO3 作为一个输出驱动的高信号，PIO5 是一个有强大偏压力的，设置键值为 (0x0028,0x0008,0x0008,0x0020)。

mask = 0x0028 # (1<<5 | 1<<3) direction = 0x0008 # (1<<3) level = 0x0008 # (1<<3) bias = 0x0020 # (1<<5)

Key Name	Key Number	Type	Default Setting
PSKEY_CLOCK_REQUEST_FEATURES	0x03b6	uint16	0

This key is only applicable if the value of PSKEY_CLOCK_REQUEST_ENABLE is non-zero.

该键值只在 PSKEY_CLOCK_REQUEST_ENABLE 的值为非零值时适用。

The clock request PIO can be configured to be active-high or -low. In an inactive state, it can be be

tristated or driven as an output by BlueCore.

该时钟要求 PIO 可以被配置为 active-high or –low。在一个不活动的状态中，它可能是通过蓝牙芯片 tristated 或驱动作为输出的。

Bit 0 of this PSKEY inverts the polarity of the PIO when not tristated. When it is set, the PIO is active low. When it is clear, the PIO is active high.

该 PSKEY 值的 0 位在不 tristated 的情况下，倒置了 PIO 的极性。当它被设置，该 PIO 是活动低的。当它是明确的，该条例是活动高的。

When bit 1 is set, PIO is tristated when the clock request is inactive. When bit 1 is clear, PIO is a driven output when the clock request is inactive.

当 1 位被设置时，PIO 在时钟要求是不活动时是 tristated 的。当位 1 是明确的，PIO 在时钟要求是不活动时是驱动输出的。

The default behaviour is that the PIO is active high and always driven.

默认行为是 PIO 是活动高和一直驱动的。

The key is available from BlueCore3-ROM, but has no effect on BlueCore3-Multimedia.

BlueCore3-Multimedia has the clock request line but this cannot be configured to either be inverted or tristated.

该键值可从 BlueCore3-ROM 中获得，但是对 BlueCore3-Multimedia 是没有影响的。

BlueCore3-Multimedia 有时钟要求线，但是这既不可以被配置为倒转的，也不可以被配置为 tristated 的。

Key Name	Key Number	Type	Default Setting
PSKEY_CHARGER_TRIM	0x03b7	uint16	0

Some chip variants from BlueCore3-Flash onwards have battery charger circuitry. This key supplies a value for the charger trim which must be in the range 0..0xf.

一些芯片变体在 BlueCore3-Flash 中有蓄电池充电器电子线路。该键值为充电器修饰提供一个值，该值必须在 0 至 0xf 范围内。

Taking BC4-audio as an example the trim value alters:

以 BC4 音频为例，修饰值更改为：

The voltage at which the charger will move from "trickle charge" to "fast charge" modes, ranging from approximately 2.7 to 3.075V in 25mV steps.

充电器的电压将从"trickle charge"移至"fast charge" 模式,在 2.5mV 阶段范围大约在 2.7 至 3.075V 之间。

The voltage at which the charger will move from "fast charge" to "standby" modes, ranging from approximately 3.8 to 4.55V in 50mV steps.

充电器的电压将从"fast charge" 移至 "standby"模式,在 50mV 阶段范围大约在 3.8 至 4.55V 之间。

The voltage at which the charger will move from "standby" to "fast charge" modes, ranging from approximately 3.75 to 4.35V in 40mV steps.

充电器的电压将从"standby" 移至"fast charge"模式,在 40mV 阶段范围大约在 3.75 至 4.35V 之间。

So with a trim value of 0x4, the charger will move from "trickle" to "fast" charge at ~2.8V, move from "fast charge" to "standby" at ~4.0V, and move from "standby" to "fast charge" at ~3.9v.

因此以 0X4 为修饰值，充电器将从"trickle" 移至"fast"，改变~2.8V，从"fast charge" 移至"standby"，改变~4.0V，从"standby" 移至"fast charge"，改变~3.9V。

These values are only to be taken as rough approximations for BC4-audio and may also alter for other BlueCore variants.

这些值只能视 BC4 音频的为粗略估计并且可能改变其他蓝牙芯片变体。

This key should only be set on advice from CSR.
该简直只能被设置为 CSR 公司意见中。

Key Name	Key Number	Type	Default Setting
PSKEY_LC_USE_THROTTLING	0x03b8	bool	1

Allow the LC to select the packet type it chooses depending on the packet error rate. Setting this to FALSE makes the LC select packet size on data size only.
允许 LC 挑选数据包类型，它的选择取决于数据包的出错率。设置它到 FALSE 使 LC 选择数据包大小时只随数据量而定。

Key Name	Key Number	Type	Default Setting
PSKEY_USB_DONT_RESET_BOOTMODE_ON_HOST_RESET	0x03b9	bool	0

If a USB reset is received after a device has been enumerated and the Bluecore is in a bootmode other than the default, the USB subsystem will force a reset into the default bootmode unless this key is set to TRUE.
如果 USB 复位是在一个装置被列举之后接受到的，并且蓝牙芯片是在默认值以外的启动模式，该 USB 子系统将强迫一个复位进入默认启动模式，除非该键值被设置到 TRUE。

Key Name	Key Number	Type	Default Setting
PSKEY_MR_TX_CONFIG2	0x03ba	uint16	0xaa07

Value used to override the transmit configuration on headers of Enhanced Data Rate packets. For CSR use only.
该值用于在增强数据率数据包的顶端覆盖传输结构。只在 CSR 公司使用。

Key Name	Key Number	Type	Default Setting
PSKEY_MR_TX_FILTER_CONFIG	0x03bb	uint32	0x22000001UL

Configures the transmit filter used in Enhanced Data Rate packets for optimum modulation. For CSR use only.
在 Enhanced Data Rate 中为了最有利的调制配置传输过滤器。只在 CSR 公司使用。

Key Name	Key Number	Type	Default Setting
PSKEY_I2C_CONFIG	0x03be	uint16	0x0000

Configures the I2C bus. The default value of this pskey configures the I2C bus for maximally-portable use, i.e. standard mode with long timeouts, suitable for slow I2C EEPROMs.
设置 12C 线路。该 pskey 的默认值为最大限度便携式应用设置 12 线路，即，长时间超时设定的标准模式，适合缓慢的 I2C EEPROMs。
If bit 0 is set, the I2C bus is configured for fast mode. All other devices on the bus (i.e. all slave devices) must obey the fast mode I2C specification. Note that in this mode the firmware does not have timeouts for SCL stretching -- the firmware will block while SCL is held low by the slave.

如果 0 位被设置，为最快模式配置 12C 线路。在线路上左右其他装置（即所有副装置）必须遵循快的模式 12C 说明。注意，在该模式中，该固件没有为 SCL 展宽设置超时设定—该固件将在 SCL 被副装置保持缓慢时堵塞。

Also note that fast mode is currently not implemented for signalling I2C operations such as (re)starts, stops and read acknowledgements; these will be performed as if in standard mode.

还要注意到，快速模式目前无法实施 signalling12C 操作，如（重新）启动，停止和读取确认信息；在标准模式下这些将被执行。

Key Name	Key Number	Type	Default Setting
PSKEY_MR_ANA_RX_FTRIM	0x03bf	uint16	0x844

Sets the initial value of the chip's $ANA_RX_FTRIM register when in enhanced data rate (formerly known as medium rate).

在增强数据速率（已知为中等速度）时设置芯片 s $ANA_RX_FTRIM 登记的初始值。

(This is for CSR internal use only. If you don't know what it's for, don't play with it.)

（这只能在 CSR 公司内部使用。如果您对此不了解，请不要擅自使用。）

Key Name	Key Number	Type	Default Setting
PSKEY_USB_VM_CONTROL	0x03c0	bool	0

Some VM applications such as the HID-proxy or USB cable-replacement dongle can supply their own USB descriptors. When using such an application, this key must be set to TRUE to ensure that the firmware does not attempt to register the default HCI descriptors.

一些 VM 应用软件，如 HID-proxy 或 USB cable-replacement dongle 可以支持他们本身的 USB 描述符。在使用这些应用软件时，该键值必须设置到 TRUE 以确保该固件不会试图登记默认的 HCI 描述符。

Key Name	Key Number	Type	Default Setting
PSKEY_TRANSMIT_OFFSET	0x03c1	int16	none

Offset used for transmit, in units of 62.5 kHz.

在 62.5 千赫 units 中用于传输的补偿。

This value takes precedence over PSKEY_TX_OFFSET_HALF_MHZ if both are set. It provides the same parameter but with greater resolution.

该值将在两个都被设置的情况下在 PSKEY_TX_OFFSET_HALF_MHZ 上取得优先权。它提供相同的参量。

Key Name	Key Number	Type	Default Setting
PSKEY_TRIM_RADIO_FILTERS	0x03c2	uint16	0

This key should only be altered on advice from CSR.

该键值只在 CSR 公司的建议下更改。

If bit 0 is set, the chip will perform a long (approximately 80 ms) trim of the radio's transmit and receive filters at boot, and periodically a short update. This is not supported in firmware which supports enhanced data rate.

如果设置了 0 位，该芯片将执行无线传输的一个长（大约 80ms）修饰并在启动时接收过滤，而且接收周期性地一个简短的更新。这不在固件中支持而支持增强数据速率。

If bit 1 is set, the chip will automatically determine a suitable value for the RSSI range on receive to prevent the receiver from saturating. (This affects the value originally set by PSKEY_RSSI_HI_TARGET or by PSKEY_LC_RSSI_GOLDEN_RANGE on builds without PSKEY_RSSI_HI_TARGET).
如果设置了 1 位，该芯片将自动确定一个接收，以防止饱和范围，接受 RSSI 的合适值。（这会影响到在结构中先前设置的 PSKEY_RSSI_HI_TARGET 或 PSKEY_LC_RSSI_GOLDEN_RANGE 值没有 PSKEY_RSSI_HI_TARGET）。
If bit 2 is set, the chip will dynamically configure the DC offset in the transmit baseband at startup. This only applies to BlueCore2: this feature is always enabled on BlueCore3.
如果设置了 2 位，该芯片将在启动传输基带时动态配置 DC 补偿。这只适用于 BlueCore2：该特征在 BlueCore3 上总是激活的。
In builds with PSKEY_MR_RX_FILTER_RESPONSE key present, bit 3 is used to enable a receive filters trim for use with Enhanced Data Rate (EDR). An initialisation value given by PSKEY_MR_RX_FILTER_TRIM which must also be present.
目前在建立与 PSKEY_MR_RX_FILTER_RESPONSE 键值时，位 3 是用来接受过滤修饰与 Enhanced Data Rate (EDR)的使用。PSKEY_MR_RX_FILTER_TRIM 给出的一个初始化值必须也是存在的。
If the PSKEY_MR_RX_FILTER_RESPONSE key is not present, bit 3 has no function. The newer the golden curve trim can be enabled when present by setting the MR_ENABLE_RX_GOLDEN_CURVE_TRIM pskey to true.
如果 PSKEY_MR_RX_FILTER_RESPONSE 键值是不存在的，位 3 是没有功能性的。较新的金属曲线修饰可以在 MR_ENABLE_RX_GOLDEN_CURVE_TRIM pskey 真实存在时被激活。

Key Name	Key Number	Type	Default Setting
PSKEY_DEEP_SLEEP_USE_EXTERNAL_CLOCK	0x03c3	bool	FALSE

Versions of BlueCore from BlueCore3 can take a 32 kHz clock input to AIO0 to act as a timing source when the chip is in deep sleep. (This is referred to as the slow clock.) Its frequency must be stable to at least 250 parts per million. Its use is enabled by setting this key to TRUE.
在芯片处于深睡眠时，蓝牙芯片 3 中的蓝牙版本可能采取 32 千赫的时钟输入 AIO0 作为时间来源。（这是暗指慢时钟）它的频率必须是稳定的，至少是百万分之 250。它的使用通过设置该键到 TRUE 来激活。
The clock does not have to be exactly 32 kHz; anything within a few percent (including 30 kHz) is useful. The firmware will calibrate this external slow clock against the standard 20 ppm clock (as supplied by crystal or TCXO) at startup. If PSKEY_DEEP_SLEEP_STATE is set to DEEP_SLEEP_ALWAYS_ACCURATE, the firmware will assume the external slow clock does not need subsequent calibration, saving extra power.
该时钟不一定正好为 32 千赫；在几个百分比（包括 30 千赫）以内的任何事物都是有用的。该固件将校准这个外部慢时钟，从而在启动时反对标准的 20ppm 时钟（如晶体或 TCXO 所提供的）。如果 PSKEY_DEEP_SLEEP_STATE 设置到 DEEP_SLEEP_ALWAYS_ACCURATE,那该固件将假设外部慢时钟不需要连续的校准，以节省额外功率。
If the worst-case accuracy of the supplied clock is significantly better than 250 parts per million, PSKEY_DEVICE_DRIFT can usefully be set to that accuracy. This allows a slave in low power mode to turn on its radio for less time when attempting to resynchronise with its master.
如果提供的时钟在最坏情况下的精确度明显优于百万分之 250，PSKEY_DEVICE_DRIFT 可以有效的设置

准确性。这使得在低功率模式下的从动装置在试图与主机重新校准时打开无线电使用的时间减少了。
(Type bool is fundamentally a uint16 with values 0 and 1 mapping to FALSE and TRUE.)
（**bool** 类型基本上是一个映射到 **FALSE** 和 **TRUE** 的值为 **0** 和 **1** 的 **unit16**。）

Key Name	Key Number	Type	Default Setting
PSKEY_SCHED_THROTTLE_TIMEOUT	0x03c4	TIME	500 * MILLISECOND

This key modifies the behaviour of the Bluecore's scheduler. It should only be configured on advice from CSR. PSKEY_NOTE_START The maximum time, in microseconds, for which the scheduler can be blocked by interrupts. If this time is exceeded, execution of the hostio interrupt handlers is delayed (for a maximum time specified by PSKEY_HOSTIO_THROTTLE_TIMEOUT) to allow the scheduler to run. If this time is exceeded, execution of the hostio interrupt handlers is delayed (for a maximum time specified by PSKEY_HOSTIO_THROTTLE_TIMEOUT) to allow the scheduler to run. PSKEY_NOTE_END
该键修改了蓝牙芯片的调度程序运转情况。它应该只设定在 **CSR** 公司的意见上。**PSKEY_NOTE_START** 的最大时间以微秒为单位计算，该调度程序可能被中断。如果超过了这个时间，主机中断处理程序会延迟执行（由 **PSKEY_HOSTIO_THROTTLE_TIMEOUT** 指定的最高时间）从而允许调度程序的运行。**PSKEY_NOTE_END**。

Key Name	Key Number	Type	Default Setting
PSKEY_RSSI_CORRECTION	0x03c5	int8	0

The BlueCore (from BlueCore2-Ext chip version onwards) is able to measure the signal strength of packets received from air. This measurement is of the signal strength at the input to the chip rather than at the input to the module i.e. it does account for any attenuation or gain provided by external components such as the antenna or a LNA.
该蓝牙芯片能够测量从空中接收到的数据包的信号强度。这种测量是输入到芯片的信号强度，而不是输入到模块的信号强度。它说明任何衰减或者获取提供的外部元件的原因，如天线或 **LNA**。
This pskey specifies a value in dB that will be added to the BlueCore's RSSI reading to correct for external components.
这个 **pskey** 指定了一个分贝值，它将添加到蓝牙芯片的 **RSSI** 中，从而读取正确的外部元件。
In builds prior to 19, this pskey only affects the RSSI values reported in 'inquiry response with RSSI' HCI events; it does not affect the RSSI value reported via the HCI_Read_RSSI command. In 19 builds and upwards, this key affects all RSSI values reported by the chip.
在 **19** 之前的结构中，这个 **pskey** 只是影响 **RSSI** 值报告“对 **RSSI** 调查询问”的 **HCI** 事件。它不影响 **RSSI** 值报告通过 **HCI_Read_RSSI** 命令。在 **19** 和 **19** 以上的结构中，该键值影响所有 **RSSI** 值对芯片的报告。

Key Name	Key Number	Type	Default Setting
PSKEY_MIN_WAIT_STATES	0x03c6	uint16	1

Some firmware requires flash devices that can be accessed without wait states. If the flash device requires wait states then it this key should be set to 1, otherwise it should be set to 0.
一些固件要求闪存装置可以在没有等待状态的情况下被存取。如果闪存装置要求有等待状态，那么该键值应该设置为 **1**，否则它应该设置为 **0**。
The key is checked by DFU for upgrades.
该键值为升级通过 **DFU** 被检验。

Key Name	Key Number	Type	Default Setting
PSKEY_SYNTH_TXRX_THRESHOLDS	0x03c7	uint16	0x1e6a
The minimum and maximum tuning voltage in internal units used by the local oscillator for transmit and receive. 为了传送和接收在内部的单位使用本机减振器调整最小和最大电压。 This key is for CSR use only. 该键值只在 **CSR** 公司使用。			

Key Name	Key Number	Type	Default Setting
PSKEY_RX_ATTEN_UPDATE_RATE	0x03c9	uint16	2
This sets the rate at which the automatic gain control updates the receiver's attenuation. 该键值设置的速度是自动获取控制更新接收器的衰减的。 Only useful from BlueCore3. 只在蓝牙芯片 **3** 中使用。 A value of 4 in PSKEY_RX_ATTEN_BACKOFF implies PSKEY_RX_ATTEN_UPDATE_RATE must be at least 2: if one key is changed, the other should be changed in direct proportion. 一个 **4** 的值在 **PSKEY_RX_ATTEN_BACKOFF** 中暗指 **PSKEY_RX_ATTEN_UPDATE_RATE** 时必须至少为 **2**：如果一个键值是被改变的，那么其他硬挨改变成正比。			

Key Name	Key Number	Type	Default Setting
PSKEY_RX_ATTEN_BACKOFF	0x03ca	uint16	4
The back-off value of the attenuation used by the receiver as a difference between the final attenuation selected by AGC for one packet and the initial attenuation selected for the following packet from the same remote transmitter. Only useful from BlueCore3. 只在蓝牙芯片 **3** 中使用。 There is a dependency betwen this key and PSKEY_RX_ATTEN_UPDATE_RATE which must be maintained for correct operation of the AGC: see the description of PSKEY_RX_ATTEN_UPDATE_RATE for details. 在该键值和 **PSKEY_RX_ATTEN_UPDATE_RATE** 之间是附属关系，必须保持 **AGC** 的正常运作：参见 **PSKEY_RX_ATTEN_UPDATE_RATE** 的详细描述。			

Key Name	Key Number	Type	Default Setting
PSKEY_ONCHIP_HCI_CLIENT	0x03cc	bool	0
This key controls the routing of HCI traffic. For a vanilla 'HCI' firmware build this key should be set to FALSE (0). For a firmware build that incorporates upper stack layers, this key should be set to TRUE (1). 该键值控制 **HCI** 传输量的程序安排。为 **vanilla**“**HCI**”固件建立该键值应该设置为 **FALSE**（**0**）。一个固件建立了合并较高的堆积层时，该键值应设置为 **TRUE**（**1**）。			

Key Name	Key Number	Type	Default Setting
PSKEY_INITIAL_BOOTMODE	0x03cd	int16	none

The firmware is capable of switching between a number of different 'bootmodes'. Each bootmode presents a different view of the persistent store, with some keys being overridden by bootmode-specific values. A device can support a maximum of 8 bootmodes. If this key is present the device will enter the specified bootmode after a cold reset. If the key is not present, bootmode 0 will be used.

该固件是能够在若干不同的“**bootmodes**”之间进行交换的。每一个启动方式显示一个连续存储的不同视角，有些键值被启动方式的特定值做覆盖。一个装置可以支持 **8** 个启动方式的最大值。如果该键值是存在的，该装置将在冷启动之后进入特定的启动方式。如果该键值不存在，启动方式将被使用。

Key Name	Key Number	Type	Default Setting
PSKEY_RADIOTEST_CDMA_LO_REF_LIMITS	0x03ce	uint16	0x2314

Used in an identical way to PSKEY_CDMA_LO_REF_LIMITS, except in radiotest mode.

除了在 **radiotest** 模式以外，其余都应使用同一个路径到 **PSKEY_CDMA_LO_REF_LIMITS**。

Key Name	Key Number	Type	Default Setting
PSKEY_RF_TRAP_BAD_DIVISION_RATIOS	0x03cf	uint16	0x4

This PSKEY enables code to trap the frequency division ratios that cause unwanted effects.

这个 **PSKEY** 使得编码能够限制频率标准比从而导致不必要的效果。

When creating the lookup table for RF oscillations, certain entries can create spurs at 1.8 GHz. Bits 0 and 1 control this.

当 **RF** 振动制造出查找列表时，某些项可以创建 **spurs** 控制在 **0** 到 **1** 之间的 **1.8** 千赫位上。

Bit 0 should be turned on or off to enable or disable trapping of such ratios on transmission.

位 **0** 应在传输中打开或关闭，启用或禁用这类比率的限制。

Bit 1 should be turned on or off to enable or disable trapping of such ratios on reception.

位 **1** 应在接收中打开或关闭，启用或禁用这类比率的限制。

Bit 2 should be turned on or off to enable or disable trapping of division ratios that clash with the 48 MHz USB clock.

位 **2** 应在与 **48** 兆赫的 **USB** 时钟在时间上有冲突时打开或关闭，启用或禁用这类标度比的限制。

Key Name	Key Number	Type	Default Setting
PSKEY_TEST_FORCE_OFFSET	0x03d3	bool	FALSE

This key modifies the behaviour of PSKEY_TEST_DELTA_OFFSET. It should only be configured on advice from CSR.

该键值修改 **PSKEY_TEST_DELTA_OFFSET** 的习性。它应该只在设定在 **CSR** 公司的建议中。

Key Name	Key Number	Type	Default Setting
PSKEY_RX_DYNAMIC_LVL_OFFSET	0x03d4	uint16	0

The value of this key is added to the receiver level to optimise certain channels during reception.

该键值被加强到接收器水平，从而通过接收优化某些通道。

It consists of four four-bit fields. Bits 0 to 3 control the behaviour at resonance, bits 4 to 7 one channel

away, bits 8 to 11 two channels away, and bits 12 to 15 three channels away.
它由四个 4 位字段组成。0 至 3 位控制共振行为，4 至 7 位通过一个通道离开，8 至 11 为通过两个通道离开，12 至 15 位通过三个通道离开。

Key Name	Key Number	Type	Default Setting
PSKEY_TEST_DELTA_OFFSET	0x03d6	uint16	0

This offset is applied to the frequency trim in certain test modes. The value zero is equivalent to normal operation. It should only be configured on advice from CSR.
该偏移量适用于在某些试验方式中的频率微调。零值相当于正常运作。它应该只配置在 CSR 公司的意见中。

Key Name	Key Number	Type	Default Setting
PSKEY_TEMPERATURE_VS_DELTA_ANA_FTRIM	0x03d7	temperature_calibration[]	none

The value is a table in the same format as PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA. The values of the table (even-numbered 16-bit words) in this case are an adjustment applied separately to PSKEY_ANA_FTRIM.
该值是一个与 **PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA** 有相同格式的列表。该列表的值（偶数 16 进位命令）在这种情况下分别适用于 **PSKEY_ANA_FTRIM** 的调整。

Key Name	Key Number	Type	Default Setting
PSKEY_TEMPERATURE_VS_DELTA_TX_BB	0x03d8	temperature_calibration[]	{ -20, 7 }, { -10, 4 }, { 0, 3 }, { 10, 0 }, { 100, 0 }, { 110, 2 }, { 120, 5 }

The value is a table in the same format as PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA. The values of the table (even-numbered 16-bit words) in this case are an adjustment applied separately to both the top nybbles of PSKEY_TX_FILTER_CONFIG; hence they must lie in the range -15 to 15. The adjusted nybbles will be limited to the range 0 to 15.
该值是一个与 **PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA** 有相同格式的列表。该列表的值（偶数 16 进位命令）在这种情况下分别适用于 **PSKEY_TX_FILTER_CONFIG** 上半部分字节的调整。因此他们必须位于**-15** 至 **15** 这个范围内。调整后的半字节将限制在 **0** 到 **15** 的范围内。

Key Name	Key Number	Type	Default Setting
PSKEY_TEMPERATURE_VS_DELTA_TX_PRE_LVL	0x03d9	temperature_calibration[]	{ -10, 0 }, { 10, 2 }, { 20, 2 }, { 30, 4 }, { 50, 4 }, { 60, 6 }

The value is a table in the same format as PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA. The values of the table (even-numbered 16-bit words) in this case are an adjustment applied to PSKEY_TX_PRE_LVL which should be in the range -15 to 15. The adjusted value will be limited to the range 0 to 15.

该值是一个与 PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA 有相同格式的列表。该列表的值（偶数 16 进位命令）在这种情况下分别适用于 PSKEY_TX_PRE_LVL 上半部分字节的调整。因此他们必须位于-15 至 15 这个范围内。调整后的半字节将限制在 0 到 15 的范围内。

Key Name	Key Number	Type	Default Setting
PSKEY_TEMPERATURE_VS_DELTA_INTERNAL_PA	0x03da	temperature_calibration[]	{ -40, -3 }, { -20, -1 }, { 10, -1 }, { 20, 0 }, { 30, 0 }, { 50, 2 }, { 60, 4 }, { 70, 7 }, { 80, 9 }

The value consists of a table of pairs of 16-bit signed values, as many pairs as necessary. Each pair is in a similar format to PSKEY_TEMPERATURE_CALIBRATION: the first value is a temperature in degrees Celsius, while in this case the second is a signed correction to be made to the internal PA setting at that temperature. The value will be interpolated linearly between those settings, but will not be extrapolated beyond the end of the temperature range. The temperatures should increase monotonically, but the corrections at each temperature need not.

该值由一对 16 进位有符号的值的列表组成，如许多必要的对一样。每一对都在一个类似于 PSKEY_TEMPERATURE_CALIBRATION 的表格中：第一个值是一个摄氏温度，而在这样的情况下，第二个值是一个有标记的更正，她是为内部的 PA 设置的温度。该值将被那些设置之间的线性内插值交换，但不会超出该温度范围的底限。该温度应该单调地增加，但是每个温度不需要更改。

Key Name	Key Number	Type	Default Setting
PSKEY_TEMPERATURE_CALIBRATION	0x03db	temperature_calibration	0x0017, 0x59b3

This value must be set to enable temperature compensation which is available from some BC2-ROM versions and all later parts. It is used to calibrate the internal thermometer and can be set separately for each individual chip. It consists of two words.

该值必须设置为启用温度补偿，这样就可以从 BC2-ROM 版本和后面的部分得到补偿。它用于校准内部温度表，并可以分别设置每一个个别的芯片。它有两个字节组成。

The first word is the calibration temperature in degrees Celsius stored as an int16. The second word is a uint16 comprising of two 8 bit fields.

第一个字节是在以一个 16 进位为单位的摄氏温度存储的校准温度。第二个字节是一个又两个 8 位字节组成的 unit16。

Pre BC5 they are coded as: 前置的 BC5 编码为：

- Lower 8 bits: the value read from ADC channel 1 (at cal temp)
- 较低的 8 位：该值从 ADC 通道 1 中读取
- Upper 8 bits: the value read from ADC channel 36 (at cal temp)
- 较高的 8 位：该值从 ADC 通道 36 中读取

Post BC5 they are coded as: 终点的 BC5 编码为：

- Lower 8 bits: ADC channel 1 coded as 10 bits - 700 (at cal temp)
-较低的 8 位：ADC 通道 1 编码为 10 位-700
- Upper 8 bits: ADC channel 36 coded as 10 bits - 300 (at cal temp)
-较高的 8 位：ADC 通道 36 编码为 10 位-300

All three readings must be made together. Pre BC5 ADC values are simply the values returned from the standard BCCMD ADC interface.

这三个读书必须都在一起。前置 BC5ADC 值只不过是从标准的 BCCMD ADC 界面中返回的值。

Post BC5 the (8 bit) BCCMD ADC readings need to be multiplied by 4 and then 700 or 300 subtracted from the result to obtain the 8 bit values for the pskeys (as shown above).

终点 BC5（8 位）BCCMD ADC 读数需要乘以 4，然后从结果中减去 700 或 300 从而获得该 pskeys 的 8 位值（如上所示）。

To turn temperature compensation off, both words should be set to zero. (Note that this must be *two* zero 16-bit words, as zero is an acceptable value for the temperature in degrees Celsius.)

关闭温度补偿，这两个字节都应该设置为 0.（注明这必须为“two”0 16 进位字节，0 在摄氏温度中是一个认可的价值。）

Note that in version 17 of the firmware and before the second reading was made from channel 10. This will not work for chips starting with BlueCore3. However, from version 18 onwards channel 36 maps to the correct channel for the temperature reading regardless of the underlying hardware.

请注意，固件版本 17 和第二读数之前的部分是由通道 10 做成的。这不为了启动 BlueCore3 而工作。

Key Name	Key Number	Type	Default Setting
PSKEY_DEEP_SLEEP_CORRECTION_FACTOR	0x03dc	int16	0

In deep sleep, BlueCore has a low power oscillator circuit which is used to keep time. Different variants of the chip have slightly different behaviour. This key allows the correction for the chip to be tweaked: lower (signed) values make the clock run slower, and higher values make it run faster. This should only need to be changed for different hardware; therefore, the value should only be altered on advice from CSR.

在深睡眠中，BlueCore 有一个低功率振荡器线路，用于确保时钟走得准。不同变型的芯片有轻微不同的表现。该键值允许芯片的改正被调整：较低（有标记的）的值使时钟运转缓慢，而较高的值使时钟运转较快。这应该只需要对不同的硬件进行交换；因此，该值应该只在 CSR 公司的意见下更改。

Key Name	Key Number	Type	Default Setting
PSKEY_CLOCK_STARTUP_DELAY	0x03dd	uint16	0

On waking from deep sleep, BlueCore usually expects an external clock supplied to the chip to be stable within 5 milliseconds of the clock request line being asserted. If this is not the case, special action must be

taken to avoid loss of clock accuracy. In particular, the clock accuracy must not fall below 250 parts per million while there are Bluetooth connections to the device.

从深睡眠中唤醒，蓝牙芯片宣称通常预计一个外部时钟在时钟请求线的 **5** 毫秒内提供给芯片稳定性。如果情况不是这样，那么就必须要采取特别措施来避免时钟精确度的损耗。特别是在蓝牙链接到装置时，时钟准确度不能低于百万分之 **250**。

On BlueCore2-ROM, this key should be set to the maximum time in milliseconds which it will take an external clock to stabilise. This results in slightly less efficient power consumption on entry to and exit from deep sleep. It has no effect if the value is less than 6 milliseconds, or if no clock request line is in use.

在 **BlueCore2-ROM**,该键值应被设置为最高一毫秒为单位的时间，它将采用一个外部时钟来确保稳固。这会在深睡眠中的出入中轻微地减少有效功率的消耗。如果这个值小于六毫秒或者没有使用中的时钟请求线，那么就没有影响。

On BlueCore3 and later, a value from 1 to 31 inclusive is used directly as count of cycles of the low power oscillator (LPO). Setting a value of zero (the default) causes a delay of 5 cycles to be used. The frequency of the internal LPO is nominally 1 kHz but varies somewhat between individual chips, so care should be taken when picking a suitable value. When supplying an external slow clock (see PSKEY_DEEP_SLEEP_USE_EXTERNAL_CLOCK), the nominal 32 kHz clock is divided by 32 before use.

在蓝牙芯片 **3** 和 **later** 上，一个从 **1** 到 **31**，包括 **1** 和 **31** 在内的值可直接用作低功率振荡器的周期计数（**LPO**）。设置一个为零的值（默认）会导致一个 **5** 周期的延迟使用。内部 **LPO** 的频率名义上是 **1** 千赫，但是个别的芯片也稍微有所变化，所以在选取适当的值时应当格外注意。在提供一个外部的慢时钟时（参见 **PSKEY_DEEP_SLEEP_USE_EXTERNAL_CLOCK**）名义上 **32** 千赫在使用前是要除以 **32** 的。

Key Name	Key Number	Type	Default Setting
PSKEY_CDMA_LO_ERROR_LIMITS	0x03de	uint16	0x140F

This value is used in the run-time generation of the local oscillator configuration table when using a CDMA (non n*250 kHz) reference clock.

在使用 **CDMA**（非 **n*250 kHz**）相关时钟时，该值在本地振荡器配置表的运行时期使用。

Bits [7:0] define the maximum acceptable local oscillator frequency error on transmit in uints of 1 kHz when using the preferred frequency offset.

在使用首选频率误差时，位**[7:0]**定义的最高可接收的本地振荡器频率误差在传递时为 **1** 千赫 **units**。

Bits [15:8] define the maximum allowed local oscillator frequency error in units of 1 kHz to terminate the search.

位**[15:8]**定义用最大允许本地振荡器频率误差 **1** 千赫 **units** 来结束搜索。

Available from BlueCore2-ROM only.

只有在蓝牙芯片 **2-ROM** 中可获取。

Key Name	Key Number	Type	Default Setting
PSKEY_CDMA_LO_REF_LIMITS	0x03df	uint16	0x2314

This value is used in the run-time generation of the local oscillator configuration table when using a CDMA (non n*250 kHz) reference clock.

在使用 **CDMA**（非 **n*250 kHz**）相关时钟时，该值在本地振荡器配置表的运行时期使用。

Bits [7:0] define the minimum allowed local oscillator frequency reference in units of 10 kHz.

位[7：0]定义允许最小的本地振荡器频率以 10 千赫为参比单位。
Bits [15:8] define the maximum allowed local oscillator frequency reference in units of 10 kHz.
位[15：8]定义允许最大的本地振荡器频率以 10 千赫为参比单位。
Available from BlueCore2-ROM only.
只有在蓝牙芯片 2-ROM 中可获取。

Key Name	Key Number	Type	Default Setting
PSKEY_FORCE_16MHZ_REF_PIO	0x03e1	uint16	none

The number of a PIO line, 0 to 15, which will cause the value of PSKEY_ANA_FREQ to be ignored and a 16 MHz reference to be assumed instead. A value of 0xFFFF, or absence of a value, indicates the feature is not to be used.
一个 0 到 15 的 PIO 线数字将造成 PSKEY_ANA_FREQ 值被忽视，并且一个 16 兆赫的参考值被假定代替。0xFFF 的值或者一个值的缺少暗示这一特征不再被使用。
This is useful in ROM builds which may set the PSKEY_ANA_FREQ default for a non-16 MHz reference (eg. 13 or 26 MHz, as commonly used in GSM phones). It allows correct operation with modules that use a 16 MHz crystal instead. Without this facility it would not be possible to make a host connection at a standard UART baud rate or with USB for modules that use a 16 MHz crystal.
这对 ROM 的建立是很有帮助的，它可能设置 PSKEY_ANA_FREQ 为一个非-16 兆赫参考值（eg. 13 or 26 MHz, 一般用于 GSM 电话）的默认。它允许使用一个 16 兆赫的晶体来代替与模块的正确操作。如果没有这个设施是不可能制造一个主机与一个标准的 UART 波特率的连接，也不可能制造与使用一个 16 兆赫晶体模块的 USB 连接。

Key Name	Key Number	Type	Default Setting
PSKEY_DRAIN_BORE_CURRENT_PEAK	0x03e3	uint32[]	none

This PS-Key Configures the Drain subsystem (only in special builds). This key lists the current consumption in different modes.
这个 PS-键设置 Drain 子系统（只有在特殊结构中）。该键值列出了不同模式的通用消耗。

Key Name	Key Number	Type	Default Setting
PSKEY_LOOP_FILTER_TRIM	0x03e4	uint16	0x0a85

Sets a trim for optimising the loop filter to give the best trade-off between phase noise and the time taken for the the synthesiser to settle at the start of each radio packet.
为优化环路滤波器设置一个装饰，以便在阶段噪音和时间之间为安排人工合成每一个无线电包的开始提供最好的交换
Bits [3:0] define the resistor trim for the internal loop filter Bits [7:4] define the capacitor trim for the internal loop filter Bits [11:8] define the phase comparator level; this can be used to optimise both the internal and external loop filters
位[3:0]定义内部环路滤波器的电阻器装饰 位【7：4】定义内部环路滤波器的电容器装饰 位【11：8】定义相位比较器等级；这可以用于优化内部和外部的环路滤波器。
Versions of BlueCore from BlueCore2-ROM only.
只有从蓝牙芯片 2-ROM 上可获得的蓝牙芯片描述。

Key Name	Key Number	Type	Default Setting
PSKEY_DRAIN_BORE_COUNTERS	0x03e6	uint32[]	None
This PS-Key Configures the Drain subsystem (only in special builds). This is the amount we scale each individual counter by. **这个 PS-键设置 Drain 子系统（只有在特殊结构中）。这是我们换算的每一个不同的间隔书**			

Key Name	Key Number	Type	Default Setting
PSKEY_DRAIN_BORE_TIMER_COUNTERS	0x03e7	uint32[]	None
This PS-Key Configures the Drain subsystem (only in special builds). This is the amount we scale the counters associated with the timers by. **这个 PS-键设置 Drain 子系统（只有在特殊结构中）。**			

Key Name	Key Number	Type	Default Setting
PSKEY_USB_ATTRIBUTES_POWER	0x03f2	bool	None
This bit is set if the device is self-powered. This bit is described in table 9-8 in USB spec v1.1 - it corresponds to D6 in Offset 7. **这个位会设置在自己提供功率的装置上。这个位在 9-8 列表中的 USB 说明 v1.1 中有所描述。它在 Offset7 中相当于 D6。**			

Key Name	Key Number	Type	Default Setting
PSKEY_USB_ATTRIBUTES_WAKEUP	0x03f3	bool	None
This bit is set if the device can respond to a remote wake-up command. This bit is described in table 9-8 in USB spec v1.1 - it corresponds to D5 in Offset 7. **这个位会设置在一个对较远处的唤醒命令有反应的装置上。这个位在 9-8 列表中的 USB 说明 v1.1 中有所描述。它在 Offset7 中相当于 D5。**			

Key Name	Key Number	Type	Default Setting
PSKEY_DFU_ATTRIBUTES_MANIFESTATION_TOLERANT	0x03f4	bool	none
If this bit is set the device can talk via USB after a firmware upgrade, or it can deal with a second firmware download. **如果设置了这个位，该装置在固件升级后可以通过 USB 呼叫，或者它处理第二个固件的下载。** If this bit is clear the device can only be reset after a firmware upgrade. **如果这个位被清除，该装置只能在固件升级后重新安置。**			

Key Name	Key Number	Type	Default Setting
PSKEY_DFU_ATTRIBUTES_CAN_UPLOAD	0x03f5	bool	none

If this bit is set, then the device supports firmware upload to host.
如果设置了这个位，那么该装置还支持固件上传到主机。

Key Name	Key Number	Type	Default Setting
PSKEY_DFU_ATTRIBUTES_CAN_DOWNLOAD	0x03f6	bool	none

If this bit is set, then the device supports firmware download from host.
如果设置了这个位，那么该装置还支持固件从主机上下载。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG_STOP_BITS	0x03fc	bool	none

Configures theof UART stop bits.
设置 UART 结束位的数据。
This field should be set to 0 (1 stop bit) for both BCSP and H4.
该字段应为 BCSP 和 H4 设置为 0（1 结束位）。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG_PARITY_BIT	0x03fd	uint16	none

Configure the UART parity.
设置 UART 的同等位。
This field should be set to 3 (even parity) for BCSP and 0 (no parity) for H4.
这个字段应该为 BCSP 设置为 3（偶数奇偶性）为 H4 设置为 0（非奇偶性）。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG_FLOW_CTRL_EN	0x03fe	bool	none

Configure UART hardware flow control.
设置 UART 硬件流控制。
This field should be set to 0 (no hardware flow control) for BCSP and 1 (hardware flow control) for H4.
这个字段应该为 BCSP 设置为 0（非硬件流控制），为 H4 设置为 1（硬件流控制）。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG_RTS_AUTO_EN	0x03ff	bool	none

When UART data flows into the chip it passes from the wire, through a very small fixed buffer, then into one of the chip's large (virtual memory/MMU) buffers. If this PS key is enabled then the chip deasserts RTS to the host if the small fixed buffer fills. This gives time for the MMU write logic to organise itself when setting up to write to an MMU buffer.
当 UART 数据流入芯片时，它从导线经过，穿过一个很小的固定减振器，然后进入芯片大减振器的其中一个（虚拟内存/MMU）。如果这个 PS 键是激活的，那么在小的固定减振器充满的情况下芯片 deassertsRTS 到主机。这在建立写入 MMU 减振器时，为 MMU 写入逻辑来组织自己提供了时间。

In practice this field should be set to 0 because the small fixed buffer should never overflow.
实际上，这一字节应该设置为 0，因为小的固定减振器应从不溢出。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG_RTS	0x0400	bool	none

Configure the UART RTS output.
设置 UART RTS 的输出功率。
This field should be set to 0 for BCSP and 1 (RTS asserted) for H4.
这个字段应该为 BCSP 设置为 0，为 H4 设置为 1（RTS 宣称的）。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG_TX_ZERO_EN	0x0401	bool	none

The hardware bit this corresponds to is toggled by software to generate a serial break condition.
This field should be set to 0 because the device should not generate a serial break condition while booting.
这个字节应该设置为 0，因为该装置不应该在启动过程中产生一系列短路状态。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG_NON_BCSP_EN	0x0402	bool	none

The BlueCore contains hardware that performs much of the grunt work of coding/decoding BCSP packets. By default this is enabled as the BlueCore firmware uses BCSP by default. However, where the UART has to be used as a plain UART, e.g. for H4, then the BCSP hardware must be disabled. This is the role of this bit.
蓝牙芯片包括的硬件执行许多译或编 BCSP 数据包的 grunt 工作。默认时，这是被激活的，如蓝牙芯片固件使用的默认时的 BCSP。然而，如 UART 一直被用作一个普通的 UART，例如，为 H4 的那么 BCSP 硬件必须禁用。 这是该位的作用。
This PS key should be set to 0 (Enable) for BCSP and 1 (Disable) for H4.
该键值应该为 BCSP 设置为 0（可能的），为 H4 设置为 1（不可能的）。
Switching between BCSP and H4 requires more than just setting this bit; see PSKEY_UART_CONFIG and PSKEY_HOST_INTERFACE.
在 BCSP 和 H4 之间转换，要求多于设置这个位；参见 PSKEY_UART_CONFIG 和 PSKEY_HOST_INTERFACE。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_CONFIG_RX_RATE_DELAY	0x0403	uint16	none

The hardware bits this corresponds to are toggled by software to pacify the UART when the clock rate is changed.
This field should be set to 0.
该字段应设置为 0.

Key Name	Key Number	Type	Default Setting

PSKEY_UART_SEQ_TIMEOUT	0x0405	uint16	250
Ack message timeout in the BCSP sequencing layer. **Ack 信息在 BCSP 先后顺序层中暂时休息。** See PSKEY_UART_SLEEP_TIMEOUT.			

Key Name	Key Number	Type	Default Setting
PSKEY_UART_SEQ_RETRIES	0x0406	uint16	20
The maximum number of times the chip's BCSP engine attempts to send a packet to the host before it marks the link as dead. **在它标志链接断开前，最大次数芯片的 BCSP 引擎试图发送一个数据包到主机。** In 12.X and later builds the firmware is panic()ed on detecting link failure; this will normally provoke a reboot. **在 12.X 和后来用于检测链接故障构建的固件是 panic()ed；这通常会造成重新启动。**			

Key Name	Key Number	Type	Default Setting
PSKEY_UART_SEQ_WINSIZE	0x0407	uint16	4
Size of the sliding window used by BCSP. **BCSP 使用的滑动窗口的大小。** A small value needs less ram, but will induce more ACK's. **一个较小的值需要较少的 RAM，但是将会导致更多的 ACK。** A large value will allow messages to be queued, and reduce the frequency of ACK's, but will take up more RAM. **一个大的值将允许信息排列，并减少 ACK 的振动频率，但是它也将占用更多 RAM。**			

Key Name	Key Number	Type	Default Setting
PSKEY_UART_USE_CRC_ON_TX	0x0408	bool	none
UART: Are CRCs used on BCSP tx? **UART:CRCS 是否在 BCSP tx 上使用？**			

Key Name	Key Number	Type	Default Setting
PSKEY_UART_HOST_INITIAL_STATE	0x0409	hwakeup_state	HOST_NEVER_SLEEPS
Selects the initial wake and sleep settings and state for the host. **选择最初的唤醒和休眠设置并指定在主机上。**			

Key Name	Key Number	Type	Default Setting
PSKEY_UART_HOST_ATTENTION_SPAN	0x040a	uint16	30
Seconds before host falls asleep. **在主机进入休眠前的秒。**			

Key Name	Key Number	Type	Default Setting
PSKEY_UART_HOST_WAKEUP_TIME	0x040b	uint16	100

Milliseconds wakeup pulse needed.
唤醒脉冲需要的毫秒。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_HOST_WAKEUP_WAIT	0x040c	uint16	10

Millisecond pause before comms.
Comms 前暂停毫秒。

Key Name	Key Number	Type	Default Setting
PSKEY_BCSP_LM_MODE	0x0410	uint16	1

Configure the BCSP link establishment protocol (BCSP-LE). This is only used if BCSP is used over the chip's UART.
设置 BCSP 链路建立协议（BCSP-LE）。这仅在 BCSP 的使用超过了芯片的 UART 时使用。

0 - disable link establishment.

1 - enable link establishment.

2 - enable passive-start link establishment.

The "mode" field used to be a bool. One particular manufacturer's laptop crashed if it received UART traffic while the machine was booting, so the "passive-start" option has been added. This causes the chip's link establishment engine to emit no messages until it's received traffic from the host. If the host pulls the same trick neither will talk to the other, so the link will never be used.
“mode”字节过去经常指一个布尔变量。在机器启动时接收到了 UART 信息量，一个特定的制造商的手提电脑就会突然崩溃，所以就增加了“passive-start”附件。这会导致芯片链路建立引擎在从主机上接收到信息量之前没有信息发出。如果主机拉动相同的诡计不与其他的对话，那么这个链路就永远不会被使用。

Key Name	Key Number	Type	Default Setting
PSKEY_BCSP_LM_SYNC_RETRIES	0x0411	uint16	0

Configure the BCSP link establishment protocol. This is only used if BCSP is used over the chip's UART.
设置 BCSP 链路建立协议。这仅在 BCSP 的使用超过了芯片的 UART 时使用。

uint16 sync_retries Support for this argument has been removed.

uint16 sync_retries 对这一论点的支持已被移除。

This used to set the number of sync
packets emitted before the BCSP
link establishment engine gave up
and marked the link as dead. A
value of zero meant "don't stop."
The BCSP link establishment engine
now always behaves as if the value
is zero.

这用于在 BCSP 链路建立引擎放弃或标志链路断开时设置同步数据包发出的数据。一个 0 值意思是"don't

stop”。BCSP 链路建立引擎现在总是表现得像值为 0。

Key Name	Key Number	Type	Default Setting
PSKEY_BCSP_LM_TSHY	0x0412	uint16	250

Configure the BCSP link establishment protocol. This is only used if BCSP is used over the chip's UART.
设置 BCSP 链路建立协议。这仅在 BCSP 的使用超过了芯片的 UART 时使用。
uint16 tshy The Tshy value in milliseconds.

Key Name	Key Number	Type	Default Setting
PSKEY_UART_DFU_CONFIG_STOP_BITS	0x0417	bool	none

Configure the number of UART stop bits to use within the boot loader (DFU mode).
设置 UART 结束位在启动输入器（DFC 模块）内使用数据。
This field should be set to 0 (1 stop bit).
这一字节应设置为 0（1 停止位）。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_DFU_CONFIG_PARITY_BIT	0x0418	uint16	none

Configure the UART parity to use within the boot loader (DFU mode).
设置 UART 奇偶在启动输入器（DFC 模块）内的使用。
This field should be set to 3 (even parity).
这一字节应设置为 3。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_DFU_CONFIG_FLOW_CTRL_EN	0x0419	bool	none

Configure UART hardware flow control to use within the boot loader (DFU mode).
设置 UART 硬件流控制在启动输入器（DFU 模块）内的使用。
This field should be set to 0 (no hardware flow control).
这一字节应设置为 0（没有硬件流控制）。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_DFU_CONFIG_RTS_AUTO_EN	0x041a	bool	none

When UART data flows into the chip it passes from the wire, through a very small fixed buffer, then into one of the chip's large (virtual memory/mmu) buffers. If this pskey is enabled then the chip deasserts RTS to the host if the small fixed buffer (almost?) fills. This gives time for the mmu write logic to organise itself when setting up to write to an mmu buffer.
当 UART 数据流入芯片时，它通过金属线传递，穿过一个小的固定减振器，然后进入其中一个芯片的大减

振器（虚拟内存/mmu）内。如果这个 **pskey** 是被激活的，那么如果小的固定减振器（几乎）充满则芯片 **deasserts RTS** 进入主机。这为 **mmu** 在建立写入一个 **mmu** 减振器时写入逻辑来组织它本身提供了时间。
In practice this field should be set to 0, since the small fixed buffer should never overflow.
实际上，这一字节应设置为 **0**，因为小的固定减振器应该容纳得下。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_DFU_CONFIG_RTS	0x041b	bool	none

Configure the UART RTS output within the boot loader (DFU mode).
在启动输入器内设置 **UART RTS** 的输出功率。
This field should be set to 0.
这一字节应设置为 **0**。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_DFU_CONFIG_TX_ZERO_EN	0x041c	bool	none

The hardware bit this corresponds to is toggled by software to generate a serial break condition.
This field should be set to 0.
这一字节应设置为 **0**。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_DFU_CONFIG_NON_BCSP_EN	0x041d	bool	none

The BlueCore contains hardware that performs much of the grunt work of coding/decoding BCSP packets. This should always be enabled because the boot loader (DFU mode) always uses BCSP for UART transports.
蓝牙芯片包括了执行很多编码或解码 **BCSP** 数据包的琐碎工作的硬件。由于启动输入器（**DFU** 模式）总是为了 **UART** 的传输使用 **BCSP**，所以它总应该是激活的。
This pskey should be set to 0 (disable).
这个 **pskey** 应设置为 **0**（不能使用的）。

Key Name	Key Number	Type	Default Setting
PSKEY_UART_DFU_CONFIG_RX_RATE_DELAY	0x041e	uint16	none

The hardware bits this corresponds to are toggled by software to pacify the UART when the clock rate is changed.
This field should be set to 0.
这一字段应设置为 **0.**

Key Name	Key Number	Type	Default Setting
PSKEY_AMUX_AIO0	**0x041f**	**ana_amux_sel**	**none**

Analogue multiplexer setting for the AIO 0 line on BlueCore.

在蓝牙芯片上为 **AIO 0** 线安排准备的模拟转换开关。

Multiplexed with PIO 12 on all pre BC5 chips. On some later chips it may be multiplexed with PIO 20 instead. Consult your data sheet for exact details. To use as a PIO line, the AMUX must be set to `Select AIO0 as a PIO'.

在所有 **BC5** 芯片上与 **PIO12** 相转换。在一些 **later** 芯片上，也可能用与 **PIO20** 的转换来代替。查阅准确详细的数据记录表。像使用 **PIO** 线一样，**AMUX** 必须设置为“**Select AIO0 as a PIO**”。

Not all settings are available on all chips.

在所有的芯片上，并不是所有的设置都是可用的。

Additionally on BC02-Ext, the crystal clock/2 may be routed by editing the PSkey with the value 007e (using Entry -> Edit raw).

另外，在 **BC02-Ext** 上，晶体时钟/**2** 可通过编辑 **PSkey** 与 **007e** 的值来确定路线发送（用 **Entry -> Edit raw**）。

On BC4-Headset and BC4-Audio Flash, set this PSkey to 'AMUX' and use PSKEY_AMUX_CLOCK to produce the desired clock. On BC5MM edit, this entry with the value 00be, then use PSKEY_AMUX_CLOCK to produce certain clocks.

在 **BC4-Headset and BC4-Audio Flash** 上，设置这个 **PSkey** 到“**AMUX**”并利用 **PSKEY_AMUX_CLOCK** 引出想得到的时钟。在 **BC5MM** 的编辑上，这个有 **00be** 值的项，可通过使用 **PSKEY_AMUX_CLOCK** 来引出确定的时钟。

Key Name	Key Number	Type	Default Setting
PSKEY_AMUX_AIO1	0x0420	ana_amux_sel	none

Analogue muliplexer setting for the AIO 1 line on BlueCore.

在蓝牙芯片上为 **AIO 1** 线安排准备的模拟转换开关。

Multiplexed with PIO 13 on all pre BC5 chips. On some later chips it may be multiplexed with PIO 21 instead. Consult your data sheet for exact details. To use as a PIO line, the AMUX must be set to `Select AIO1 as a PIO'.

在所有 **BC5** 芯片上与 **PIO13** 相转换。在一些 **later** 芯片上，也可能用与 **PIO21** 的转换来代替。查阅准确详细的数据记录表。像使用 **PIO** 线一样，**AMUX** 必须设置为“**Select AIO1 as a PIO**”。

The clock routing options are not available on BC3-MM. On BC5 chips write the values 0xbe or 0xfe (using Entry -> Edit Raw) to route the crystal or crystal/2 clock on AIO1 respectively.

在 **BC3-MM** 上时钟路由选择是不可用的。在 **BC5** 芯片上写入 **Oxbe** 或 **Oxfe** 值（使用 **Entry -> Edit Raw**），从而分别确定晶体时钟或晶体/**2** 时钟的路线发送。

Key Name	Key Number	Type	Default Setting
PSKEY_AMUX_AIO2	0x0421	ana_amux_sel	none

Analogue muliplexer setting for the AIO 2 line on BlueCore.

在蓝牙芯片上为 **AIO 2** 线安排准备的模拟转换开关。

Multiplexed with PIO 14 where present. To use as a PIO line, the AMUX must be set to `Select AIO2 as a PIO'.

与出现的 **PIO14** 相转换。像使用 **PIO** 线一样，**AMUX** 必须设置为“**Select AIO2 as a PIO**”。

Key Name	Key Number	Type	Default Setting
PSKEY_AMUX_AIO3	0x0422	ana_amux_sel	none

Analogue muliplexer setting for the AIO 3 line on BlueCore.
在蓝牙芯片上为 **AIO 3** 线安排准备的模拟转换开关。
Multiplexed with PIO 15 where present. To use as a PIO line, the AMUX must be set to `Select AIO3 as a PIO'.
与出现的 **PIO15** 相转换。像使用 **PIO** 线一样，**AMUX** 必须设置为“**Select AIO3 as a PIO**”。

Key Name	Key Number	Type	Default Setting
PSKEY_LOCAL_NAME_SIMPLIFIED	0x0423	local_name_complete	none

On firmware builds prior to 18, the local name is represented in the Persistent Store by a collection of keys. This key provides an easy way to manipulate those keys.
在 **18** 前建立的固件中，本地名称在 **Persistent Store** 所收集的键名中是具有代表性的。这一键值为那些键值的转换提供了一个简捷的路径。
See the description at key PSKEY_LOCAL_NAME0 for more information.
参见 **PSKEY_LOCAL_NAME0** 的更多信息描述。

Key Name	Key Number	Type	Default Setting
PSKEY_HIDIO_AGILENT	0x044d	uint8[]	0x09, 0x0A, 0x0B

Assignment of PIO lines to access an Agilent 2030 sensor.
PIO 线用于存取 **Agilent 2030** 传感器的任务。
Byte 1 : SDIO line Byte 2 : SCLK line Byte 3 : PD line
字节 **1**：**SDIO** 线　字节 **2**：**SCLK** 线 字节 **3**：**PD** 线
Protected from DFU.
保护 **DFU**。

Key Name	Key Number	Type	Default Setting
PSKEY_HIDIO_BUTTON	0x044e	uint8[]	0x00, 0x01, 0x02, 0x07, 0x08

Assignment of PIO lines for mouse buttons. A button can be made active low by zeroing the bit that corresponds to the button's PIO in PSKEY_PIO_WAKEUP_STATE.
PIO 线鼠标按键的任务。一个按钮可通过按键 **PIO** 在 **PSKEY_PIO_WAKEUP_STATE** 的置零设置为活动低。
Byte 1 : Button 1 Byte 2 : Button 2 Byte 3 : Button 3 Byte 4 : Button 4 Byte 5 : Button 5
Protected from DFU.

Key Name	Key Number	Type	Default Setting
PSKEY_HIDIO_WHEEL	0x044f	uint8[]	0x03, 0x04, 0x05

Assignment of PIO lines for mouse wheel control. A 'Quad' input can be made active low by zeroing the bit that corresponds to the input's PIO in PSKEY_PIO_WAKEUP_STATE.
PIO 线鼠标旋转控制的任务。一个“**Quad**”输入端可以通过输入端 **PIO** 在 **PSKEY_PIO_WAKEUP_STATE** 的置零设置为活动低。
Byte 1 : Wheel Quad A Byte 2 : Wheel Quad B Byte 3 : Wheel Enable

Protected from DFU.

Key Name	Key Number	Type	Default Setting
PSKEY_HIDIO_BUFFER_SIZE	0x0450	uint16	800

Size of the HIDIO report buffer in bytes.

This is the buffer used to hold reports generated when the HID device is not connected to the Host i.e. during reconnection.

这是在 HID 装置没有与主机相连接时用于保存所生成的报告时使用的缓冲区。即，重接时期。

The actual buffer allocated may be larger than that requested due to the power of 2 granularity of the buffer sub-system. Minimum size is 127.

可能由于缓冲区分系统的 2 粒度能量导致实际分配的缓冲区会大于所要求的。最小尺寸为 127.

A keyboard will typically want to remember every key press, so a buffer size of around 800 bytes is recommended for this purpose.

一个键盘将代表性地试图记住每一个按键的按压，所以为了达到这个目的，我们推荐使用一个大小在 800 字节左右的缓冲区。

When a mouse reconnects, you may not want to see a large amount of delayed pointer movement, so a buffer size in the order of 127 seems reasonable.

当一个鼠标重新连接时，你可能不希望看到大量延迟的指针移动，所以一个大小为 127 的缓冲区似乎是合理的。

Key Name	Key Number	Type	Default Setting
PSKEY_HIDIO_UART	0x0451	uint16	0x0006

For the HIDIO module to use the UART 'sensor' to communicate with an external MCU, it uses a Synchronisation PIO. This key defines that PIO.

用于 HIDIO 模块使用 UART 传感器与一个外部的 MCU 的连接，它使用了一个同步的 PIO。这个键值被定义为 PIO。

See 'hidstream.html' in Bluelab for more information.

参见在蓝牙库中'hidstream.html'的更多信息。

Protected from DFU.

Key Name	Key Number	Type	Default Setting
PSKEY_HIDIO_AGILENT_SP2	0x0452	uint8[]	0x00, 0x01, 0x02, 0x03, 0x06, 0x07, 0xFF

Assignment of PIO lines to access a second generation Avago (was Agilent) sensor (30x0/50x0/60x0/70x0).

PIO 线存取第二代 Avago 传感器(30x0/50x0/60x0/70x0)的任务。

Note that not all pins are present on all sensors. Please see the relevant Avago datasheet for more information.

请注意，并非所有的引脚都存在在所有的传感器上。请参见相关的 Avago 数据表中的更多信息。

Byte 1 : SCLK line Byte 2 : MOSI line Byte 3 : MISO line Byte 4 : NCS line Byte 5 : MOT line (Set to 16 if MOT not connected) Byte 6 : STDWN line (Set to 16 if STDWN not connected) Byte 7 : NRST line (Set to 16 if NRST not connected)

Protected from DFU.

Key Name	Key Number	Type	Default Setting
PSKEY_HIDIO_AVAGO_LASER_CONFIG	0x0453	uint8[]	0x00, 0x00

Two words should be specified that get written to the LASER_CTRL0 and LSRPWR_CFG0 registers respectively. Only valid when Bluecore is interfaced directly to an Avago (was Agilent) laser sensor (currently 60x0 and 70x0 series) using the AGILENT_SP2 serial interface.
有两个字应该具体说明，应该分别写入 **LASER_CTRL0 and LSRPWR_CFG0** 登记表中。当蓝牙芯片是直接在界面上时，**Avago** 激光传感器（当前的 **60x0 and 70x0** 串行）使用 **AGILENT_SP2** 串行接口。
The firmware takes care of writing the complementary values to the LASER_CTRL1 and LSRPWR_CFG1 registers, respectively.
该固件应注意分别写入互补的值到 **LASER_CTRL1** 和 **LSRPWR_CFG1** 的记录表中。
Defaults to a laser power of 0 to safely set the laser to its lowest power.
Laser sensors must be calibrated to ensure they are within class 1 laser power requirements. See the relevant Avago datasheet for more information about the laser sensor registers and calibration of the laser.
激光传感器必须进行校准，以确保他们在激光功率要求等级 **1** 的范围内。参见关于激光传感器记录表和激光校准的 **Avago** 数据表的更多信息。
Protected from DFU.

Key Name	Key Number	Type	Default Setting
PSKEY_EXTENDED_STUB	0x2001	uint16	0

A key that can be harmlessly read or written.
这是一个可以无恶意地读或写的键值。

Key Name	Key Number	Type	Default Setting
PSKEY_SLOW_CLOCK_SNIFF_SAMPLING	0x21d3	bool	TRUE

This key controls whether extra calibration of the internal low power oscillator is to be performed. This mechanism can potentially improve timing accuracy in low power modes.
这一键值控制内部低功率振荡器另外的校准是否是可执行的。这个机械装置可以在低功率模式中潜在地改进时间的精确性。
This key should only be changed on advice from CSR.
这个键值只有在 **CSR** 公司的建议下才可以被改变。

Key Name	Key Number	Type	Default Setting
PSKEY_MIN_CPU_CLOCK	0x21d5	uint16	CPU_SLOW_ANY

The firmware tries to save power by reducing the clock rate when the processor is idle ("shallow sleep"). This key controls the minimum clock rate that is permitted during shallow sleep.
该固件试图在处理器处于闲置状态（浅睡眠）时通过降低时钟频率来节省功率。该键值在浅睡眠被允许的

情况下控制最低时钟频率。
This key should only be changed on advice from CSR. Incorrect settings can lead to unnecessarily increased power consumption.
这个键值只有在 CSR 公司的建议下才可以被改变。错误的设置可能会导致增加不必要的功率消耗。

Key Name	Key Number	Type	Default Setting
PSKEY_SLOW_CLOCK_TEMP_HYSTERESIS	0x21d8	uint16	7

The internal low power oscillator (known as the "slow clock") is recalibrated against the accurate clock when the temperature changes. If the temperature change since the last calibration exceeds the value of this key, another calibration is performed.
内部低功率振荡器（称为“慢时钟”）是在温度变化时重新校准正确时钟的。如果从上一次校准超过这一键值的值时，温度就产生变化，那么其他的校准也可以执行。
The units of this key are degrees Celsius.
这一键值主要是摄氏温度的单位。

Key Name	Key Number	Type	Default Setting
PSKEY_MR_ENABLE_RX_GOLDEN_CURVE_TRIM	0x21da	bool	FALSE

Enables the golden curve RX filter trim code used to optimise the EDR receive performance.
(This is for CSR internal use only. If you don't know what it's for, don't play with it.)
（这只能在 CSR 公司内部使用。如果你不知道它的功用，请不要运作它。）

Key Name	Key Number	Type	Default Setting
PSKEY_MR_RX_GOLDEN_CURVE_SHAPE	0x21db	int16[]	none

Array of filter response points.
过滤器响应点的数组。
(This is for CSR internal use only. If you don't know what it's for, don't play with it.)
（这只能在 CSR 公司内部使用。如果你不知道它的功用，请不要运作它。）

Key Name	Key Number	Type	Default Setting
PSKEY_MR_RX_FILTER_TRIM_POINTS	0x21dc	uint16[]	none

Array of filter trim points
过滤器调整点的数组。
(This is for CSR internal use only. If you don't know what it's for, don't play with it.)
（这只能在 CSR 公司内部使用。如果你不知道它的功用，请不要运作它。）

Key Name	Key Number	Type	Default Setting
PSKEY_CODEC_MIN_CPU_CLOCK	0x21df	uint16	CPU_SLOW_4M

The firmware tries to save power by reducing the clock rate when the processor is idle. The clock drives the CPU, PCM, UART, USB, baseband hardware, etc. This is normally called "shallow sleep."

该固件试图在处理器处于闲置状态（浅睡眠）时通过降低时钟频率来节省功率。该时钟运行 CPU,PCM,UART,USB 和基带硬件等等。这通常被称为“浅睡眠”。

Some of the chip's hardware sets a lower limit on how slowly the clock can be run. On chips with an internal audio codec, this key controls what limit codec activity places on the clock speed.

一些芯片的硬件在时钟缓慢运行上设置了一个下限。在一个内部的音频编解码器的芯片上，该键值在时钟运转速度上控制限定编解码器的活动场所。

The default value should always be safe. It may be possible to reduce this value for reduced power consumption, but the codec function may not operate correctly if run too slow. For more advice, contact CSR.

这个默认值应该总是安全的。他也许可以为了减少功率消耗来降低这个值，但是如果运行速度太慢的话，该编解码器的功能可能无法正常运行。

The pskey's acceptable values are:

Pskey 认可的值为：

0 CPU_FAST (full rate)

1 CPU_SLOW_4M (4 MHz)

2 CPU_SLOW_2M (2 MHz)

3 CPU_SLOW_1p024M (1.024 MHz)

See also HYPERLINK "file:///E:\\翻译\\pskeys\\pskeys.html" \l "PSKEY_PCM_MIN_CPU_CLOCK#PSKEY_PCM_MIN_CPU_CLOCK"

PSKEY_PCM_MIN_CPU_CLOCK.