DSP8864E V1.0

# Bluetooth 3.0+EDR Wireless Speaker Module

Product Description

The DSP8864E V1.0 is a highly integrated Bluetooth 3.0+EDR stereo module, designed for high data rate, short-range wireless communication in the 2.4 GHz ISM band. With ISSC Bluetooth stack and profile, the DSP8864E V1.0 provides a low power and ultra-low cost Bluetooth 3.0+EDR solution for wireless voice/audio applications.

Features

- Main Chip: ISSC IS1684S
- Bluetooth 3.0+EDR compliant
- Typical +2dBm Class 2 output power
- Receiver Sensitivity: GFSK typical -91dBm, π/4 PSK typical -92dBm,
- 8DPSK typical -84dBm
- Piconet and Scatter net support
- HCI UART interface
- CVSD, A-law, μ-law CODEC algorithms for voice applications
- SBC decode for Bluetooth audio streaming
- Build-in High performance stereo audio codec
- Cap-less/single end headphone driver
- Audio DAC: 94dB SNR
- Build in Max. 350mAH Li-ion battery charger
- A2DP, AVRCP profile support
- 3V operating voltage
- ROM version: 32Kb EEPROM
- 34 pins for DIP module, 35pins for SMT module (with additional 35th pin
- antenna port for external antenna option)
- Size: 15mm x29mm
- Build-in PCB Antenna
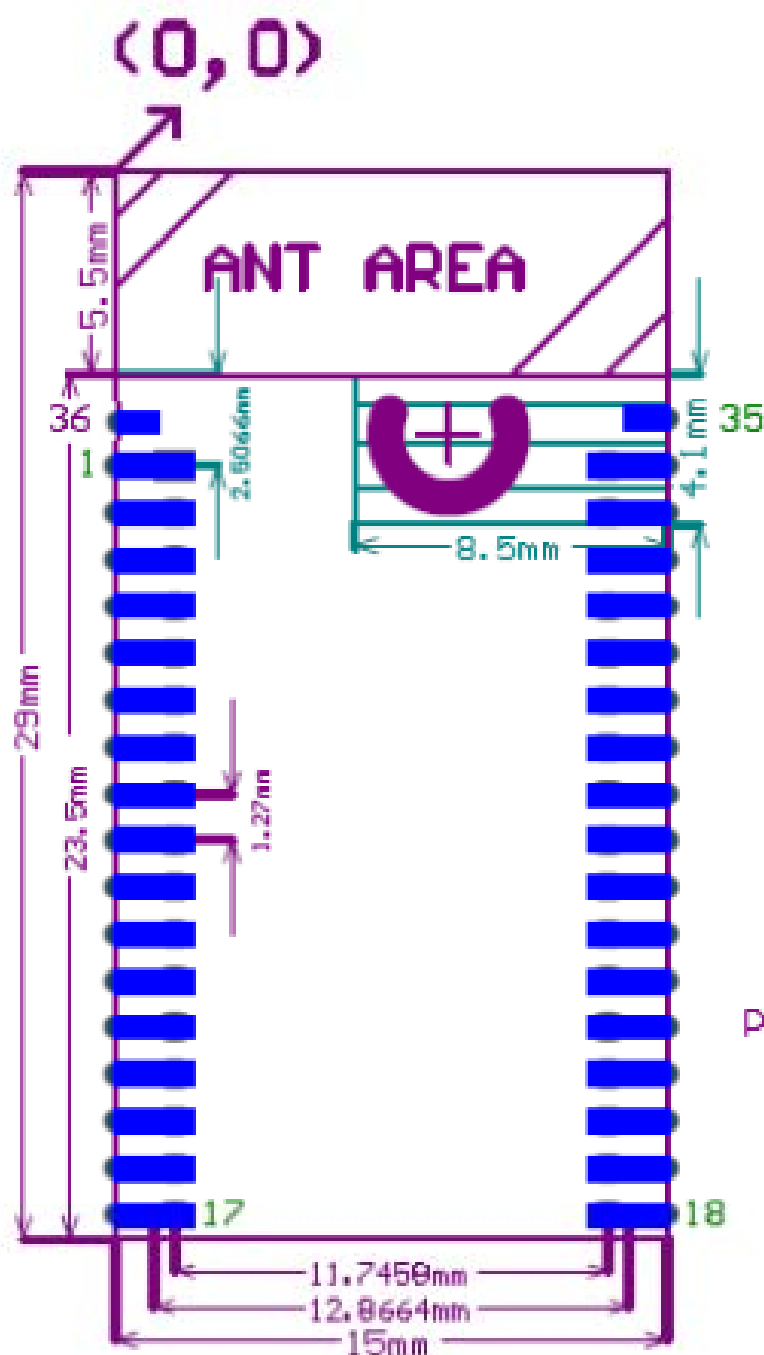- RoHS compliant

Device Pinout Diagram
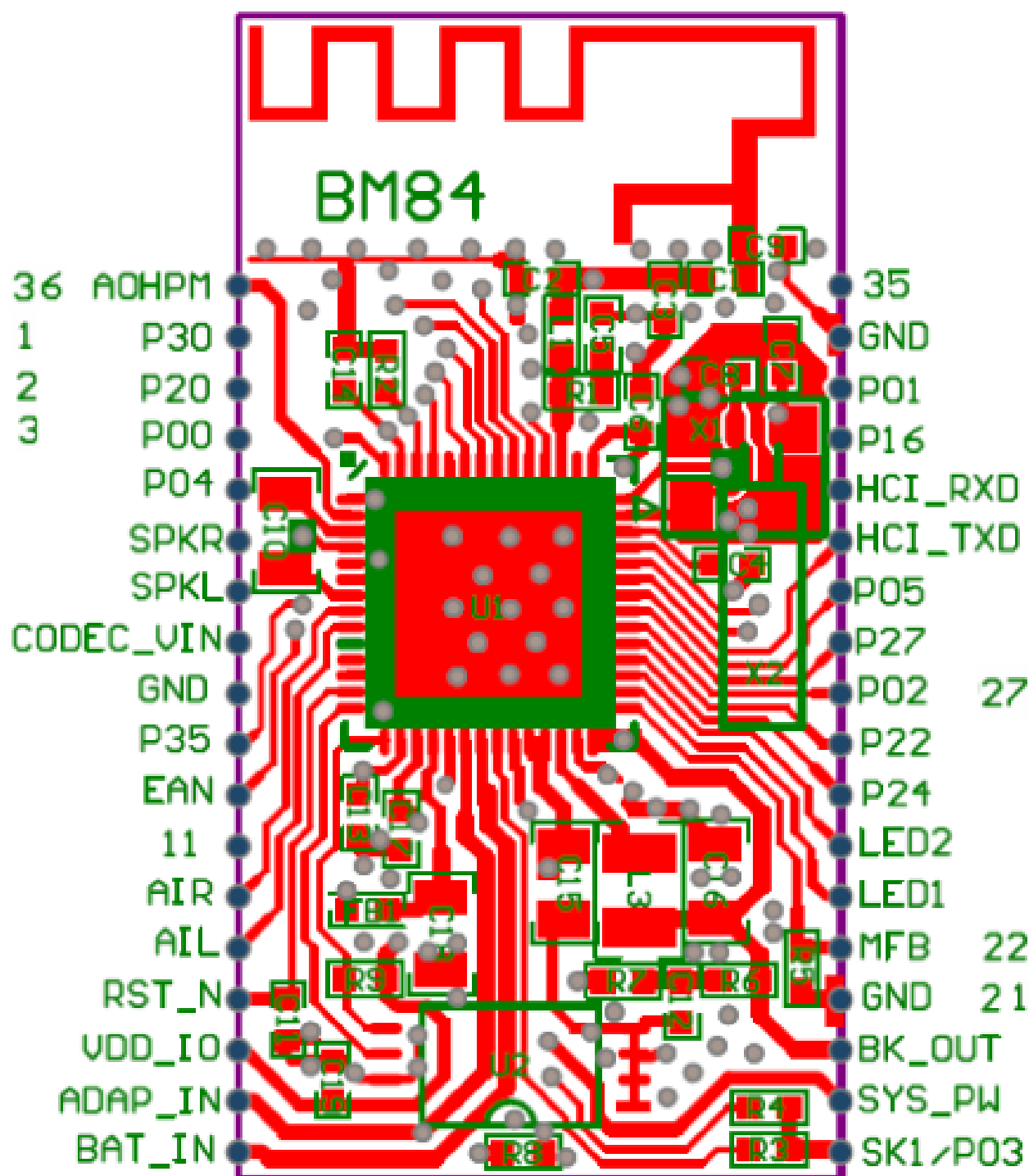
Pin Definition

Pin No.	I/O	Name	Description
1	P	P30	GPIO, default pull-high input Line-in detection, 1: no line-in detected; 0: line-in detected
2	I/O	P20	GPIO, default pull-high input System Configuration, H: Application L: Baseband (IBDK Mode)
3	I/O	P00	GPIO, default pull-low input. Slide Switch Detector
4	I/O	P04	GPIO, default pull-high input Audio AMP Enable
5	AO	SPKR	R-channel analog headphone output, single-ended application only
6	AO	SPKL	L-channel analog headphone output, single-ended application only
7	AP	VDDA	Reserve for external cap to fine tune audio frequency response
8	AP	AGND	Audio ground
9	I/O	P35	GPIO 3_5, default pull-high input. Buzzer Signal Output
10	I	EAN	Embedded ROM/External Flash enable H: Embedded; L: External Flash
11	NC	NC	
12	AI	AIR	Stereo analog line in, R-channel
13	AI	AIL	Stereo analog line in, L-channel
14	I/O	RST_N	System Reset Pin
15	P	VDDIO	VDDIO pin, for calibration only Do not add external power to this pin
16	P	ADAP_IN	Power adaptor input
17	P	BAT_IN	Battery input
18	I/O	SK1/P03	Default SAR input for battery detection This pin can be re-defined as GPIO P03
19	P	SYS_PW	System Power Output
20	P	BK_OUT	Buck feedback sense pin
21	P	GND	Digital ground
22	P	MFB	Multi-Function Push Button key Combined Play/Pause key when A2DP enabled.
23	P	LED1	LED Driver 1

24	P	LED2	LED Driver 2
25	I/O	P24	GPIO, default pull-high input System Configuration, H: Boot Mode
26	I/O	P22	GPIO, default pull-low input. External LDO enable
27	I/O	P02	GPIO, default pull-high input PLAY/PAUSE button
28	I/O	P27	GPIO, default pull-high input Foward button
29	I/O	P05	GPIO, default pull-high input REW button
30	O	HCI_TXD	HCI TX data
31	I	HXI_RXD	HCI RX data
32	I/O	P16	GPIO, default pull-high input Volume down button
33	I/O	P01	GPIO, default pull-high input Volume up button
34	P	GND	Digital ground
35	AIO	BT_RF	NC for on board PCB antenna Antenna matching if an external antenna is used
36	AO	AOHPM	Headphone common mode output/sense input

Outline Dimension (Module Foot print)