PAN IoT pluggable module

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SHEET 3 Zigbee

Project Variants	
	1600686
ZigBee	N
DNI	N

Set "ZigBee" to Yes to populate ZigBee components

REFERENCE

1600686   PCA, PAN IoT, PLUGGABLE MODULE
1401091   PCB, PAN IoT, PLUGGABLE MODULE

SIERRA WIRELESS™

SITE	<CTO Office>
LEAD ENGINEER	Ashish Syal

REV SCH	REV PCB
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IOT Connector

Grid reference columns: 1-11, rows A-J

OSC201 (32.768KHz)
- EN (1)
- VDD (4)
- OUT (3)
- GND (2)
- VCC_1V8

U200 WL1831MODGBMOCT
Signal	Pin		Pin	Signal
WL_SDIO_CLK_1V8	8		6	WL_SDIO_CMD_1V8
EXT_32K	36			
WLAN_EN	40		10	WL_SDIO_D0_1V8
BT_EN	41		11	WL_SDIO_D1_1V8
			12	WL_SDIO_D2_1V8
BT_UART_DBG	43		13	WL_SDIO_D3_1V8
BT_HCI_RTS_1V8	50		14	WL_IRQ_1V8
BT_HCI_CTS_1V8	51		42	WL_UART_DBG
BT_HCI_TX_1V8	52		27	GPIO_1
BT_HCI_RX_1V8	53		26	GPIO_2
BT_AUD_IN	56		32	RF_ANT1
BT_AUD_OUT	57		18	RF_ANT2
BT_AUD_FSYNC	58			
BT_AUD_CLK	60			

Labels: SD_CLK, SD_CMD, SD_D0, SD_D1, SD_D2, SD_D3

- R201 0
- R266 0
- R267
- R262 0
- R263 0
- R264 0
- R265 0
- R272 10K
- TP200
- TP201, TP202, TP203

UART labels:
- UART1_RTS (Output from WL)
- UART1_CTS (Input from WL)
- UART1_TX (Output from WL)
- UART1_RX (Input to WL)
- PCM_OUT (Input to WL)
- PCM_IN (Output from WL)
- PCM_SYNC (Input to WL)
- PCM_CLK (Input to WL)

VCC_1V8 / IOT0_GPIO1
- R210 10K
- R211 10K DNI

RF Section
- RF_ANT1 / RF_ANT2
- R250 0 DNI
- R275 0 DNI
- CN202, CN203
- C240 10pF, C243 10pF
- L201 1.1nH, L202 1.1nH
- D200 0.05pF DNI, D201 0.05pF DNI
- GND
- ANT201 FEED, ANT202 FEED

Q200 PDTC115EM NPN
- CARD_DETECT
- R223 10K

U202 CAT24C32HU4I-GT3
Signal	Pin		Pin	Signal
A0	1		8	VCC
A1	2		7	WP
A2	3		6	SCL (IOT0_SCL)
VSS	4		5	SDA (IOT0_SDA)

- R226 10K, R224 10K, R225 10K DNI
- VCC_1V8

CN200 CONN_38P_EDGE_IOT
Signal	Pin		Pin	Signal
USB4_D+	1		38	
USB4_D-	3		37	
			36	PCM_CLK
SD_CLK			35	PCM_SYNC
SD_CMD	5		34	PCM_OUT
SD_D3	7		33	PCM_IN
SD_D2	9		32	RESET_n
SD_D1			31	CARD_DETECT
SD_D0			30	
	11		29	
UART1_TX	12		28	
UART1_RX	13		27	IOT0_GPIO4
UART1_CTS	14		26	IOT0_GPIO3
UART1_RTS	15		25	IOT0_GPIO2
	16		24	IOT0_GPIO1
	17		23	IOT0_SCL
	18		22	IOT0_SDA
	19		21	
			20	

VCC_3V3

Decoupling caps
- C229 4.7uF, C223 4.7uF, C263 100nF (VCC_3V3)
- C207 100nF, C209 4.7uF (VCC_1V8)
- C203 100nF, C204 10uF (VCC_3V3)
- C205 4.7uF, C206 100nF (VCC_1V8)

U201 / Q201 (top)
- RESET_n, IOT0_GPIO4
- A (1), B (2), VCC (4), Y (4), GND (3)
- WLAN_EN
- R237 10K, R232 47K DNI
- C292 100nF
- Q201 NPN
- R240 560
- D210 LED GREEN
- GND VCC_3V3

U208 / Q201 (bottom)
- RESET_n, IOT0_GPIO3
- A (1), B (2), VCC (4), Y (4), GND (3)
- BT_EN
- R230 10K, R290 47K DNI
- C291 100nF
- Q201 NPN
- R241 560
- D211 LED GREEN
- GND VCC_3V3

U200 WL1831MODGBMOCT (lower)
Signal	Pin		Pin	Signal
VIO_IN	38		64	RES
VBAT_IN1	46		1	GND
VBAT_IN2	47		7	GND1
PA SHUTDOWN/REQUEST	25		9	GND2
GPIO4	3		15	GND3
GPIO9	4		16	GND4
GPIO10	2		17	GND5
GPIO11	5		19	GND6
GPIO12			20	GND7
RES1	21		23	GND8
RES2	22		24	GND9
RES3	62		28	GND10
			29	GND11
			30	GND12
			31	GND13
			33	GND14
			34	GND15
			35	GND16
			37	GND17
			39	GND18
			44	GND19
			45	GND20
			48	GND21
			49	GND22
			54	GND23
			55	GND24
			59	GND25
			61	GND26
			63	GND27
			65	GND_SLUG

- RX_ACTIVE, TX_ACTIVE
- TP208, TP205, TP210
- R200 0

"removed level translator" (circled note)

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