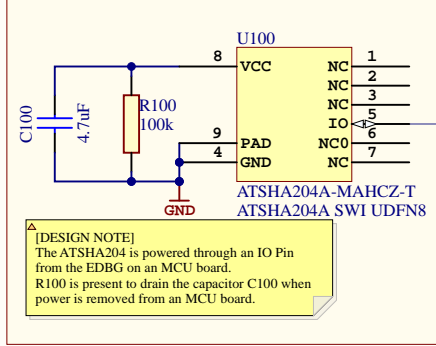
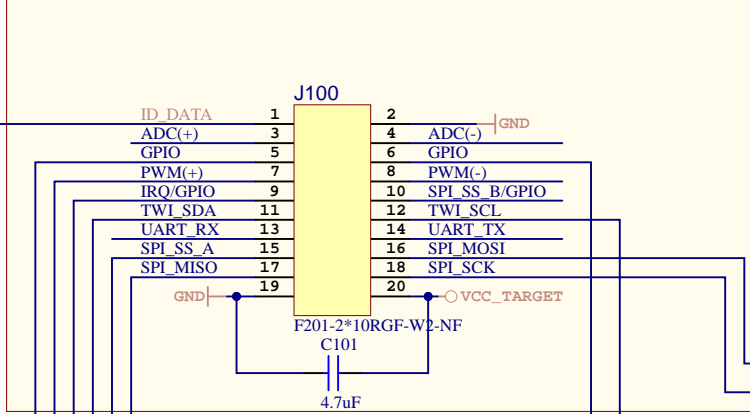


Extension Identification



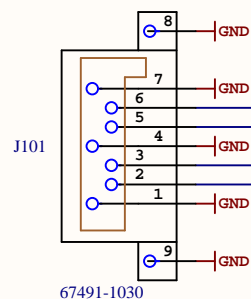
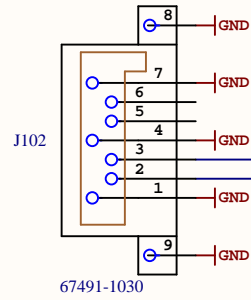
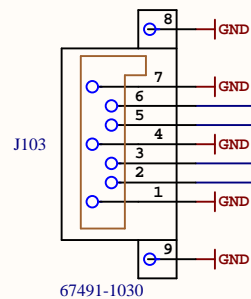
Standard Extension Header (Female)



XPRO CONN

MOSI
SCLK
MISO
SS_SEL
ID_SCL
ID_SDA
IRQ
RSTN
LED_TXRX
LED_Power

XPRO CONN



LVDS Signal

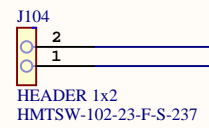
TXCLK_N
TXCLK_P
TXD_N
TXD_P
RXDN09
RXDP09
RXCLK_N
RXCLK_P
RXDN24
RXDP24

LVDS Signal

FEM 24

FEA24
FEB24

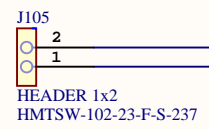
FEM 24




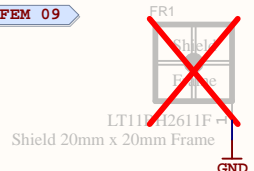
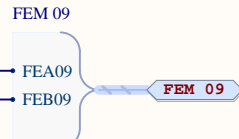
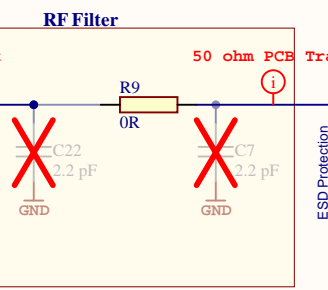
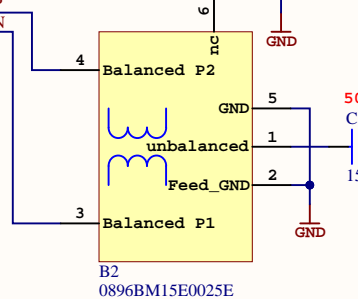
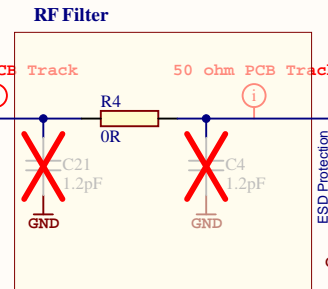
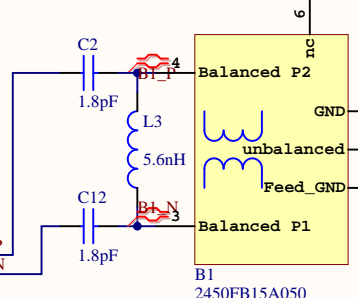
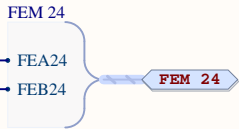
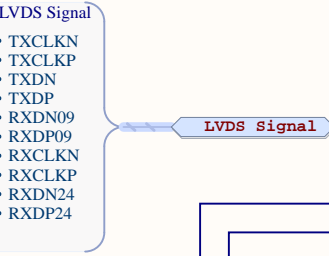
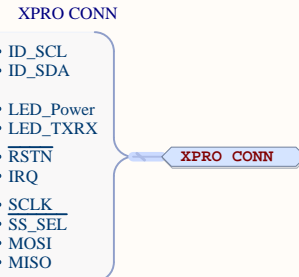
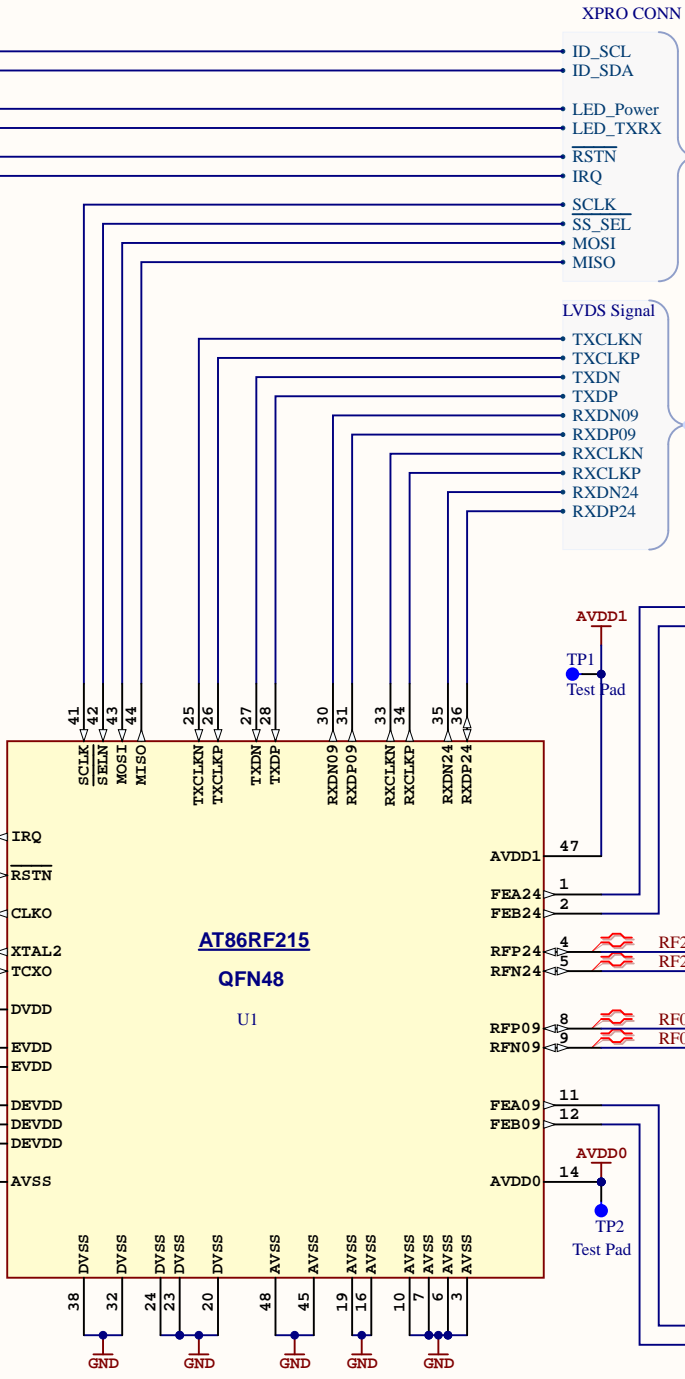
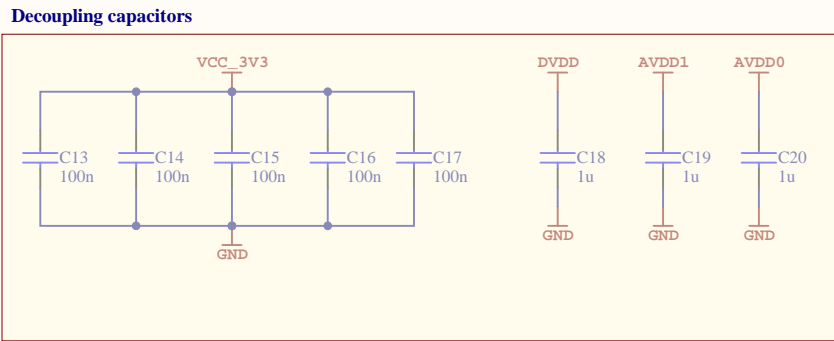
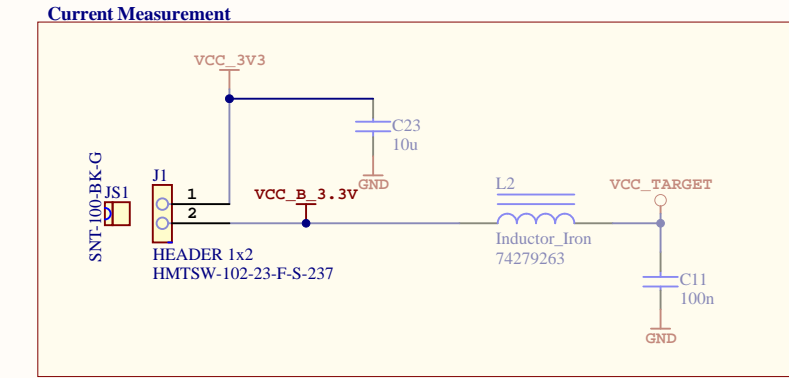
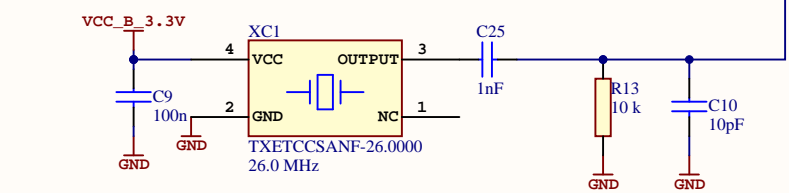
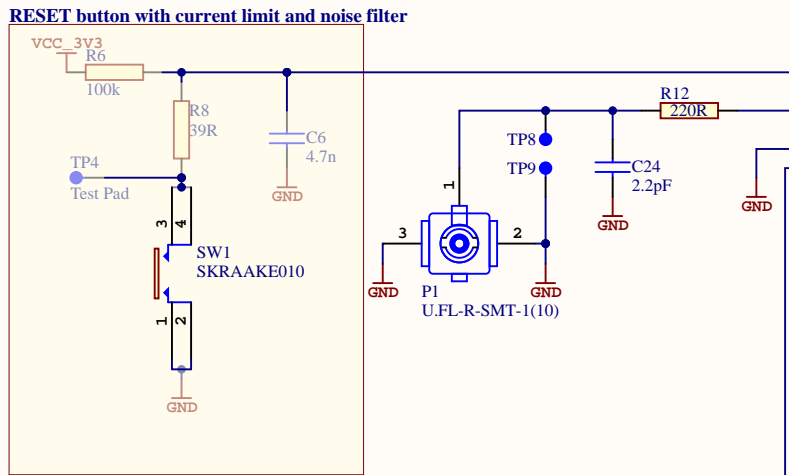
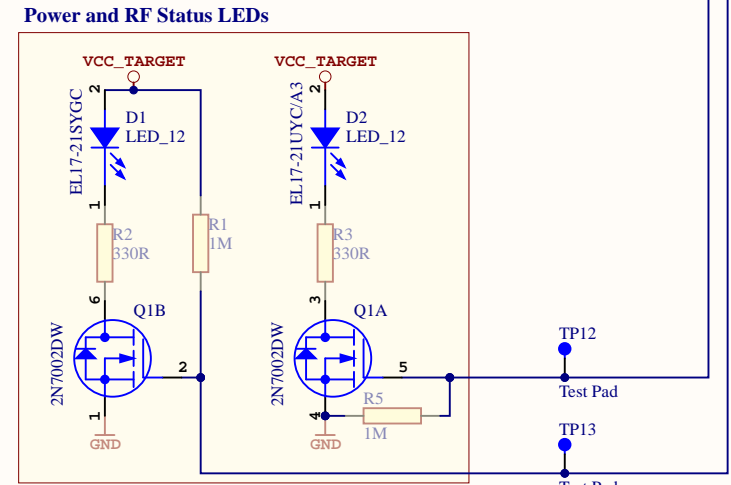
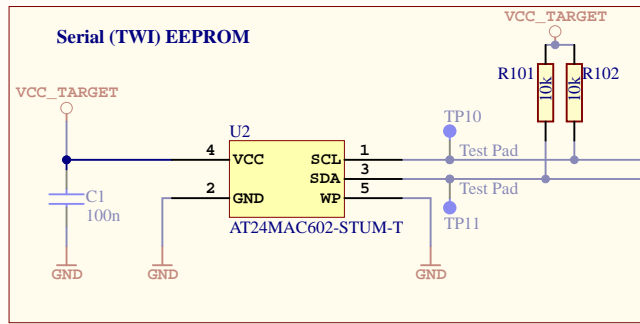
FEM 09

FEA09
FEB09

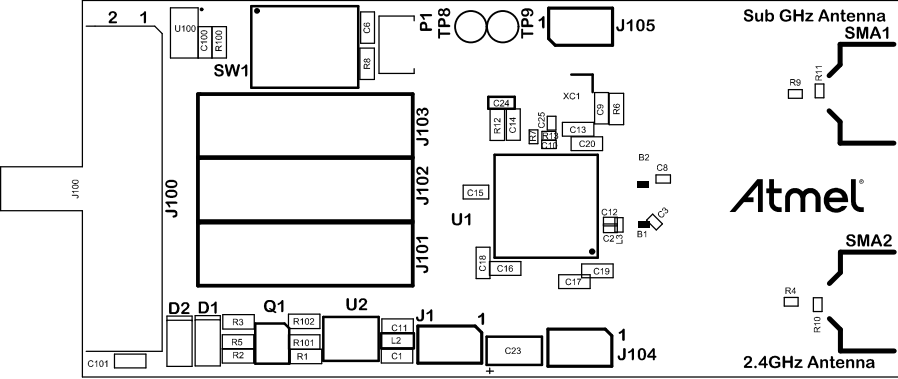
FEM 09



ATMEL R&D India	*				
Kandanchavadi	*				
Chennai					
Date:	8/2/2021	2:25:56 PM	PAGE:	2 of 3	
Document number:	A09-2353		Revision:	2	
TITLE: REB215_XPRO_A_Extension_Schematic					
REB215_XPRO_A_Connector.SchDoc					



ATMEL R&D India	*			
Kandanchavadi	*			
Chennai				
Date:	8/2/2021	2:25:57 PM	PAGE: 3 of 3	
Document number:	A09-2353	Revision:	2	
TITLE: REB215_XPRO_A_Extension_Schematic				
REB215_XPRO_A_RF.SchDoc				



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E1

WIRELESS X PLAINED^{PRO}
REB215-XPRO-A

TP4

TP2

E3

TP1

PCBA LABEL

A08-2463 Rev 1

E2

VCC_MCU

VCC_3V3

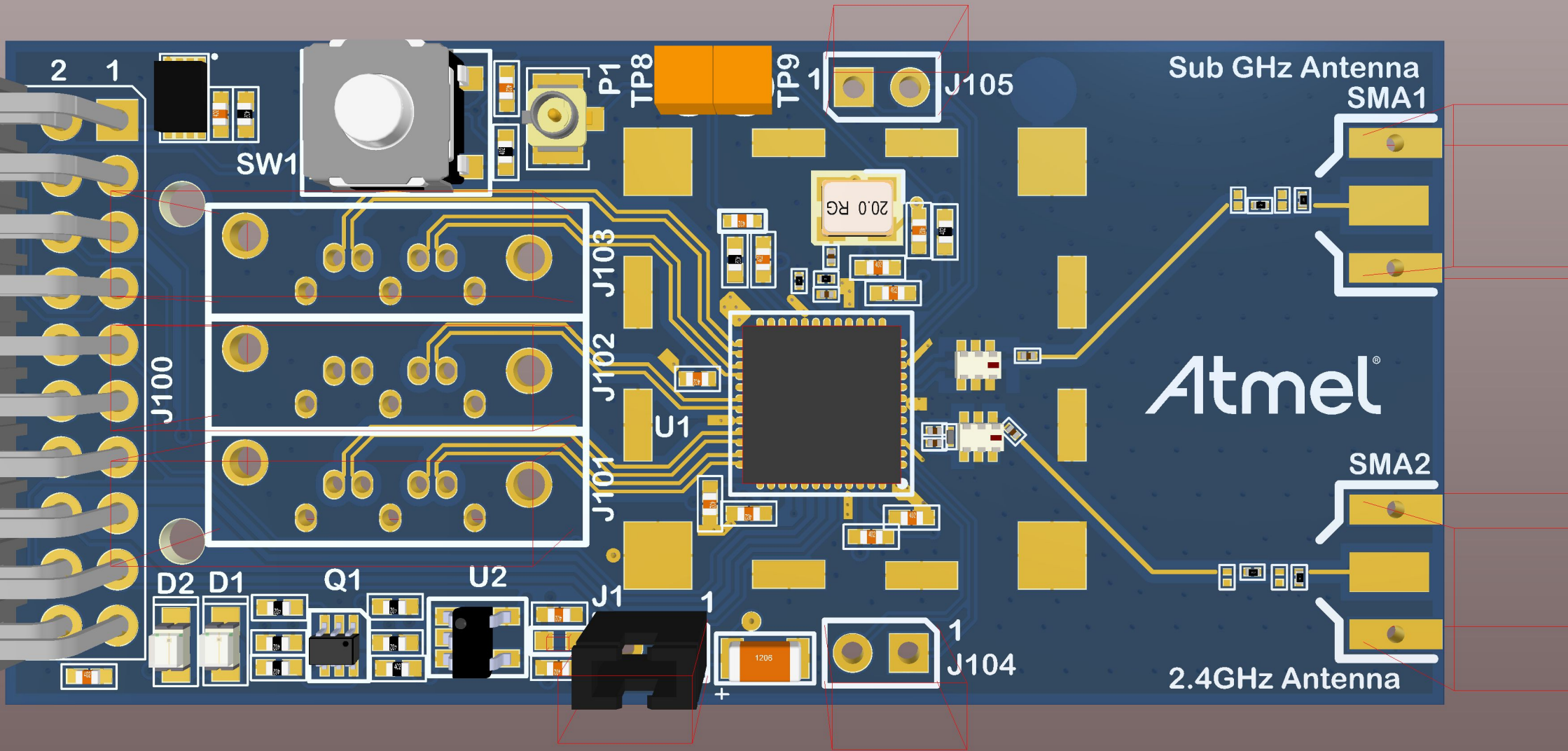
TP10

TP11

TP12

TP13







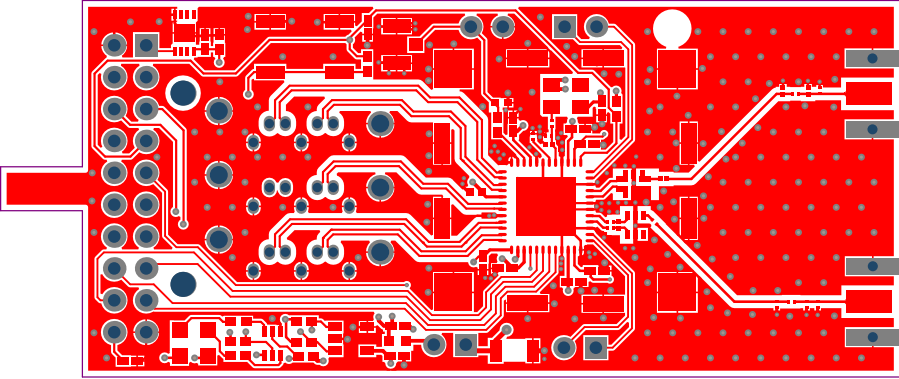
The image shows a top-down view of a blue printed circuit board (PCB) with a white circular component on the left. The board is populated with numerous yellow circular components, some of which are connected by white lines. A large white rectangular label is positioned in the upper right area of the board, containing the text 'WIRELESS X PLAINED PRO' and 'REB215-XPRO-A'. A smaller white rectangular label is located in the lower left area, containing the text 'TP1 PCBA LABEL' and 'A08-2463 Rev 1'. The text 'TP2' is also visible on the left side of the board.

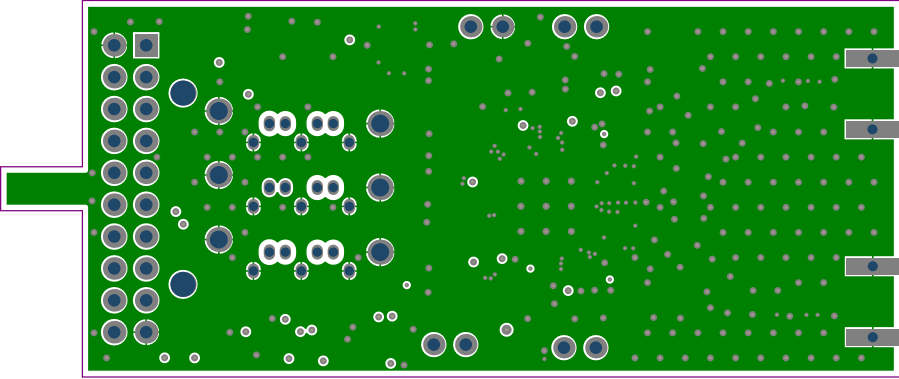
WIRELESS X PLAINED PRO

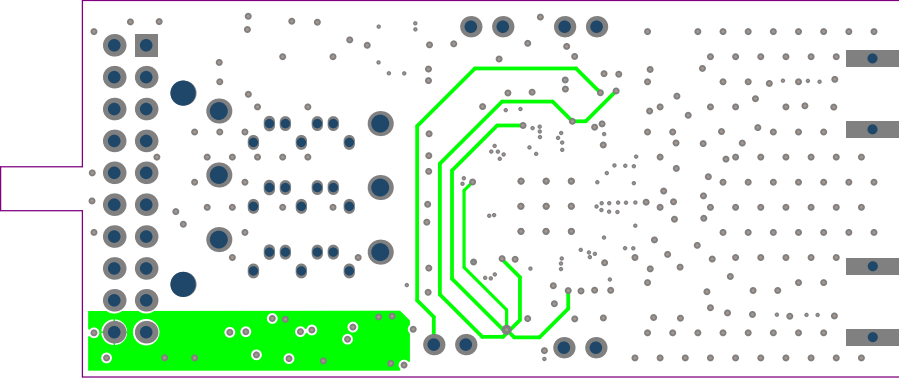
REB215-XPRO-A

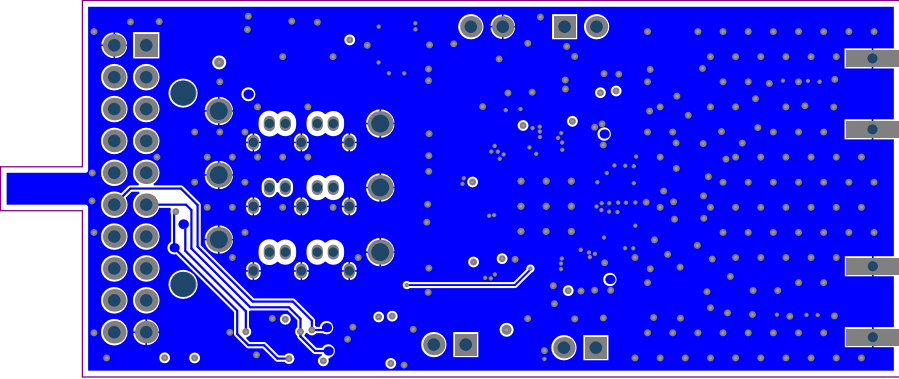
TP2

TP1 PCBA LABEL
A08-2463 Rev 1









Fitted	Designator	Quantity	MPN	Manufacturer	Value	Description	Comment
Fitted	B1	1	2450FB15A050	Johanson Technology	2450FB15A050	2.45 GHz Balun / Filter Combination	Balun_2.4GHz
Fitted	B2	1	0896BM15E0025E	Johanson Technology	0896BM15E0025E	863/915 MHz ISM band Balun-LPF for AT86RF215	Balun_2.4GHz
Fitted	C1, C9, C11, C13, C14, C15, C16, C17	8	C0402C104K4RACTU	Kemet	100n	Ceramic capacitor, SMD 0402, X7R, 16V, +/-10%	CAP-NONPOL
Fitted	C2, C12	2	250R05L1R8BT4T	Johanson Technology	1.8pF	CAP CER 1.8PF 25V NP0 0201	CAP-NONPOL
Fitted	C3	1	250R05L0R8AV4T	Johanson Technology	0.8pF	CAP CER 0.8PF 25V NP0 0201	CAP-NONPOL
Fitted	C6	1			4.7n	Ceramic capacitor, SMD 0402, X7R, 25V, +/-10% (de35287)	CAP-NONPOL
Fitted	C8	1	GRM0335C1E150JA01D	Murata	15pF	CAP CER 15PF 25V NP0 0201	CAP-NONPOL
Fitted	C10	1	C0603C0G1E100C	tdk	10pF	CAP CER 10PF 25V A±. 25pF (and A± 30ppm/ degree C of temp variation) NP0 0201	High Temp version
Fitted	C18, C19, C20	3	C0402C105K9PAC	Kemet	1u	Ceramic capacitor, SMD 0402, XSR, 6.3V, +/-10% (de26942)	CAP-NONPOL
Fitted	C23	1	GRM319R60J106KE19	Murata	10u	Ceramic capacitor, SMD 1206, XSR, 6.3V, ±10%	CAP-NONPOL
Fitted	C24	1	GRM1555C1H2R2C201D	Murata	2.2pF	Ceramic capacitor, SMD 0402, NP0, 50V, +/-0.25pF (de23847)	CAP-NONPOL
Fitted	C25	1	100R05W102KV4	Johanson Technology	1nF	Ceramic capacitor, SMD 0201, X7R, 10V, +/-10%	Alternate PN GRM033R71C102KA01D is good, but for Rated Voltage
Fitted	C100, C101	2	GRM155R60J475ME87D	Murata	4.7uF	Ceramic capacitor, SMD 0402, XSR, 6.3V, +/-20% (de33687)	Recommended by Escatec. No datasheet available yet.
Fitted	D1	1	EL17-21SYGC	Everlight	EL17-21SYGC	LED, Green, Wave length=575nm, SMD 0805 ±70°	LED_12
Fitted	D2	1	17-21UYC/5530-A3/TR8	Everlight	EL17-21UYC/A3	LED, Yellow, Wave length=591nm, SMD 0805, ±70°	LED_12
Fitted	E1, E2, E3	3	SJ-5076	3M	SJ-5076	2.8mm adhesive feet, diam 8.0mm	RUBBER FEET
Fitted	J1, J104, J105	3	HMT5W-102-23-F-S-237	SAMTEC	HMT5W-102-23-F-S-237	1x2 pin header, 2.54mm pitch, Pin-In-Paste, THM	HEADER 1x2
Fitted	J100	1	F201-2*10RGF-W2-NF	Pro-data International Corp	F201-2*10RGF-W2-NF	2x10, female pin header receptable, right-angled, 2.54mm pitch, THM, Pin In Paste	HEADER-2X10
Fitted	J101, J102, J103	3	67491-1030	Molex	67491-1030	1.27mm Pitch Serial ATA High Speed Header, Through Hole, Vertical, 7 Circuits	SATA_7PIN_HEADER
Fitted	J51	1	SNT-100-BK-G	SAMTEC	SNT-100-BK-G	Jumper cap for 2.54mm pinheader	To be used by request from ESCATEC
Fitted	L2	1	74279263	Wurth Elektronik	74279263	SMD Ferrite 2200hm, 100MHz 0603 size, (de14411)	Inductor_Iron
Fitted	L3	1	L-05B5N6SV6T	Johanson Technology	5.6nH	ceramic chip inductor, 5.6nH, 0201	ceramic chip inductor, 5.6nH, 0201
Fitted	LABEL1	1	505462	ACT Logimark AS	505462	Label for use on wireless PCBA that needs IC ID and FCC ID	Label PCBA with IC ID and FCC ID
Fitted	P1	1	U.FL-R-SMT-1(10)	HIROSE	U.FL-R-SMT-1(10)	UFL (Small Coax Connector)	Copy of A08-0629
Fitted	Q1	1	2N7002DW	Fairchild	2N7002DW	Dual N-Channel MOSFET, 60V, 115mA cont.RDS(ON) < 7.5 Ohm @90mA@5V, SOT-363	Same as 2N7002 but with two MOSFETs in one package
Fitted	R1, R5	2			1M	Thick film resistor, SMD 0402, 1/16W, 1%	R2
Fitted	R2, R3	2			330R	Thick film resistor, SMD 0402, 1/16W, 1%	R2
Fitted	R4, R9	2	MCR006Y2P3000	ROHM	0R	Thick film resistor, SMD 0201, 1/20W, 5%	Copy of A02-0534
Fitted	R6, R100	2			100k	Thick film resistor, SMD 0402, 1/16W, 1%	R2
Fitted	R7	1	RC0201JR-07100KL	YAGEO CORP	100K	RES 100K OHM 1/20W 5% 0201 SMD	R2
Fitted	R8	1			39R	Thick film resistor, SMD 0402, 1/16W, 1%	R2
Fitted	R10, R11, R13	3	MCR006Y2P3103+	ROHM	10 k	Thick film resistor, SMD 0201, 1/20W, 5%	Copy of A02-0535
Fitted	R12	1			220R	Thick film resistor, SMD 0402, 1/16W, 1%	R2
Fitted	R101, R102	2	CRCW040210K0FKED	vishay	10k	Thick film resistor, SMD 0402, 1/16W, 1%	R2
Fitted	SMA1, SMA2	2	142-0711-821	EMERSON	142-0711-821	End Launch Jack Receptacle, Round Contact (de21535)	Board Edge Mounting
Fitted	SW1	1	SKRAAKE010	ALPS	SKRAAKE010	SWITCH, SMD, 2.45N, 6.2mm X 6.2mm	same as A08-0091 but less force is needed. Can be ordered in low volumes from Mouser.
Fitted	U1	1	AT86RF215-ZU	ATMEL	AT86RF215-ZU	Sub-1GHz/2.4GHz Transceiver	48 lead QFN package
Fitted	U2	1	AT24MAC602-STUM-T	ATMEL	AT24MAC602-STUM-T	IC EEPROM 2KBIT 1MHz, 1.7V to 5.5V, SOT23-5	AT24MAC602
Fitted	U100	1	ATSHA204A-MAHCZ-T	ATMEL	ATSHA204A SWI UDFN8	ATSHA204A with 1-wire interface and UDFN8 package	ATSHA204A-MAHCZ-T
Fitted	KC1	1	TXETCCSANF-26.0000	Taiway Electronics	26.0 MHz	26MHz TCXO, 2.8 - 3.3V, Clipped sine wave 10KOhm/10pF, 3.2 x 2.5 mm SMD	TXETCCSANF-26.0000
Not Fitted	C4, C21	0	250R05L1R2CV4T	Johanson Technology	1.2pF	Ceramic Capacitor, SMD 0201, 25V, NP0, 1.2pF	This 1.2pF capacitor is used for RF antennae tuning and can not be replaced by alternatives.
Not Fitted	C7, C22	0	CBR02C229C9GAC	Kemet	2.2 pF	CAP CER 2.2PF 6.3V NP0 0201	COG, NP0
Not Fitted	FR1	0	LT11BH2611F	Laird Technologies	LT11BH2611F	SMD frame for metal shield 20mm x 20mm (de34031)	Shield 20mm x 20mm Frame