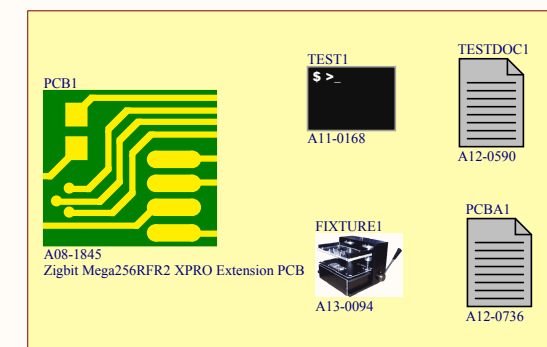
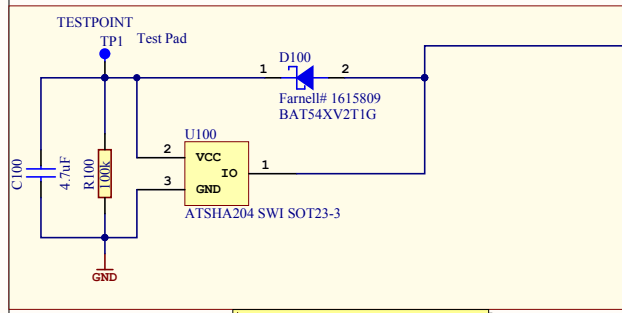


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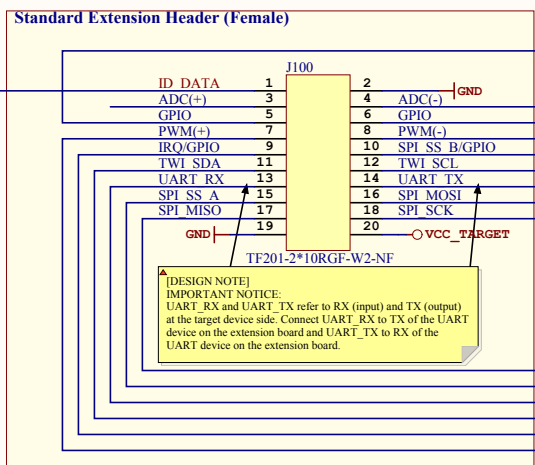


ATMEL India	SANJAYY			
RMZ Millenia 2	msk			
143, Dr. MGR Roa	*			
Chennai				
Date:	6/19/2013	10:02:24 PM	PAGE: 1 of 4	
Document number:	*		Revision: 4	
TITLE: XPRO_Extension_TopLevel_Template_4L				
XPRO_Extension_ZB_Board_TopLevel.SchDoc				

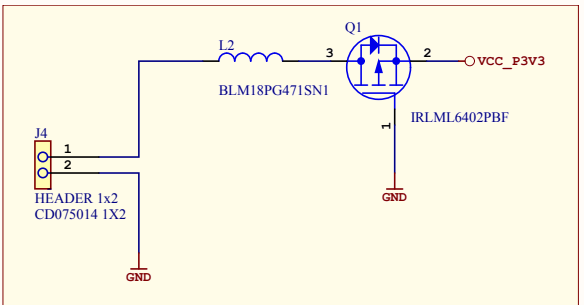
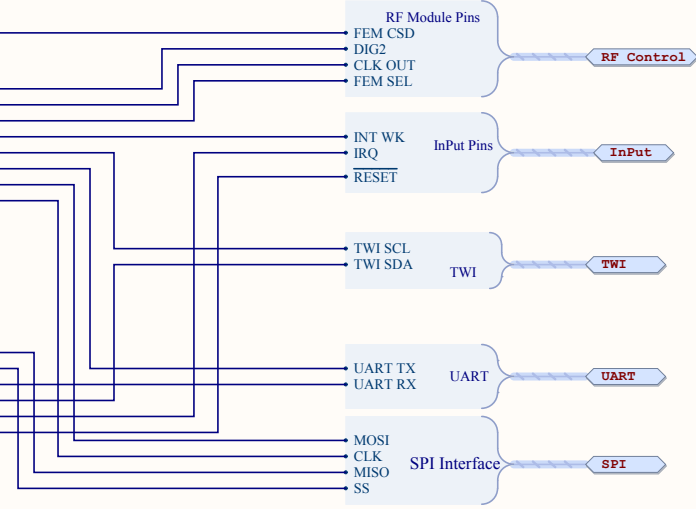


Extension Identification

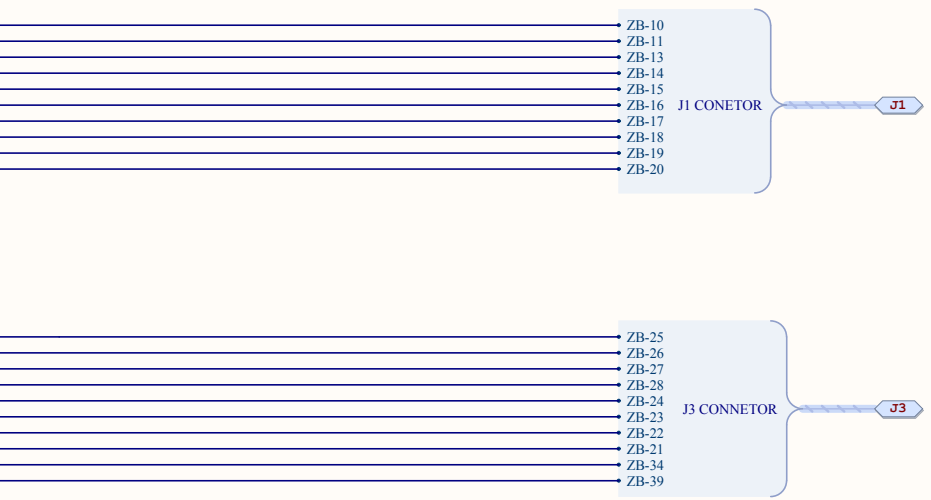
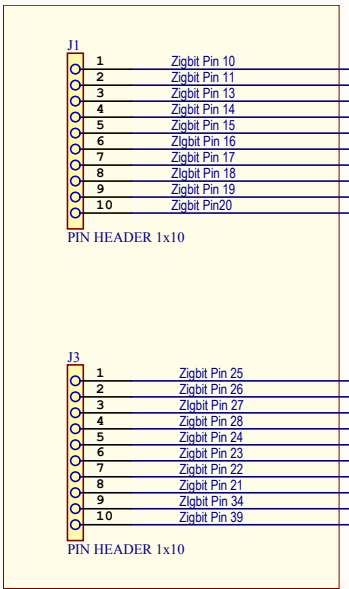
[DESIGN NOTE]
The ATSHA204 is powered through an IO Pin from the EDBG on an MCU board. R100 is present to drain the capacitor C100 when power is removed from an MCU board.



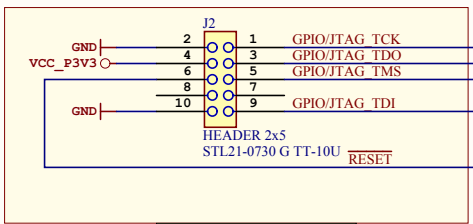
[DESIGN NOTE]
IMPORTANT NOTICE:
UART_RX and UART_TX refer to RX (input) and TX (output) at the target device side. Connect UART_RX to TX of the UART device on the extension board and UART_TX to RX of the UART device on the extension board.



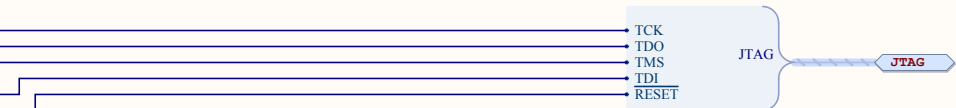
[DESIGN NOTE]
Battery Connector with reverse protection



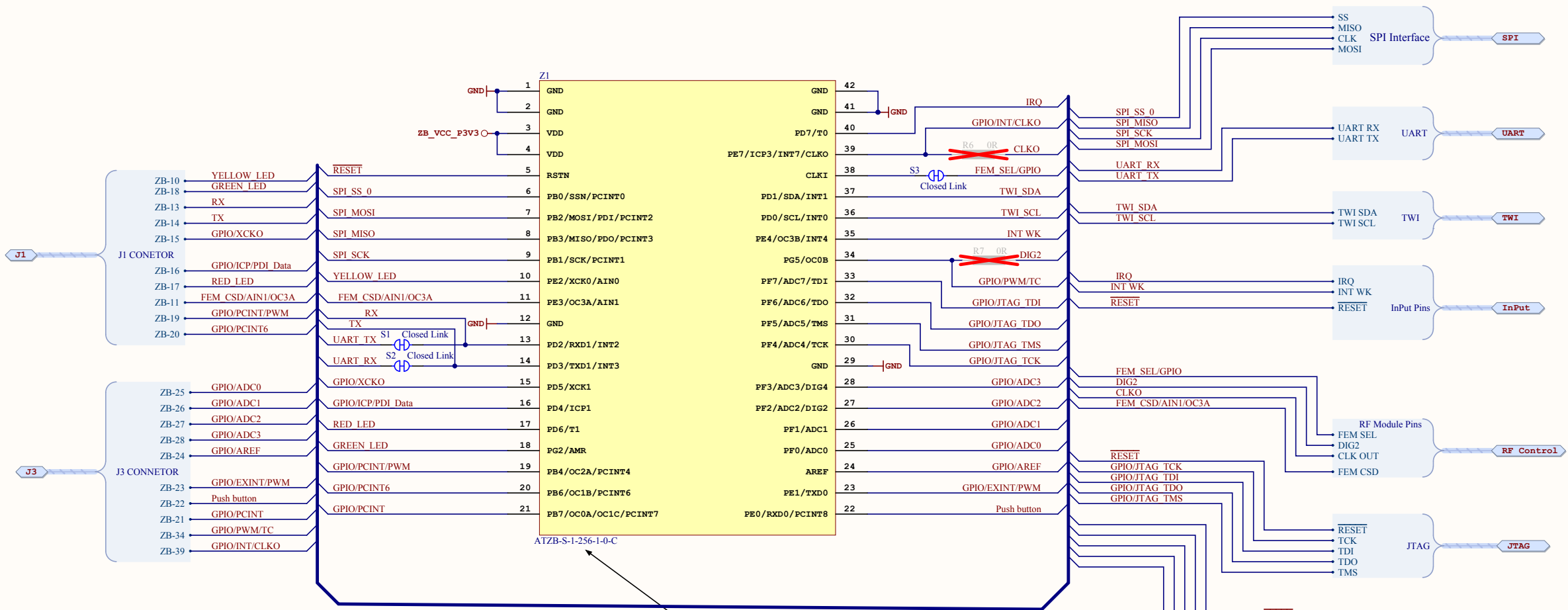
[DESIGN NOTE]
IMPORTANT NOTICE:
Connectors are not mounted in the PCB



[DESIGN NOTE]
IMPORTANT NOTICE:
JTAG Programming Connector



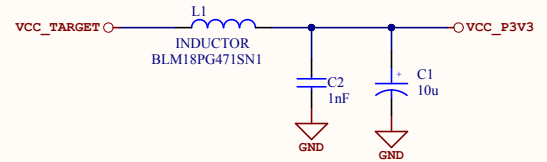
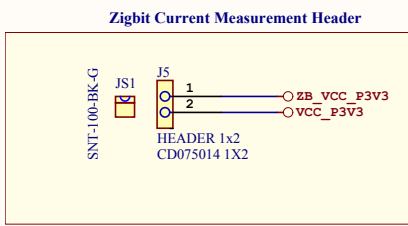
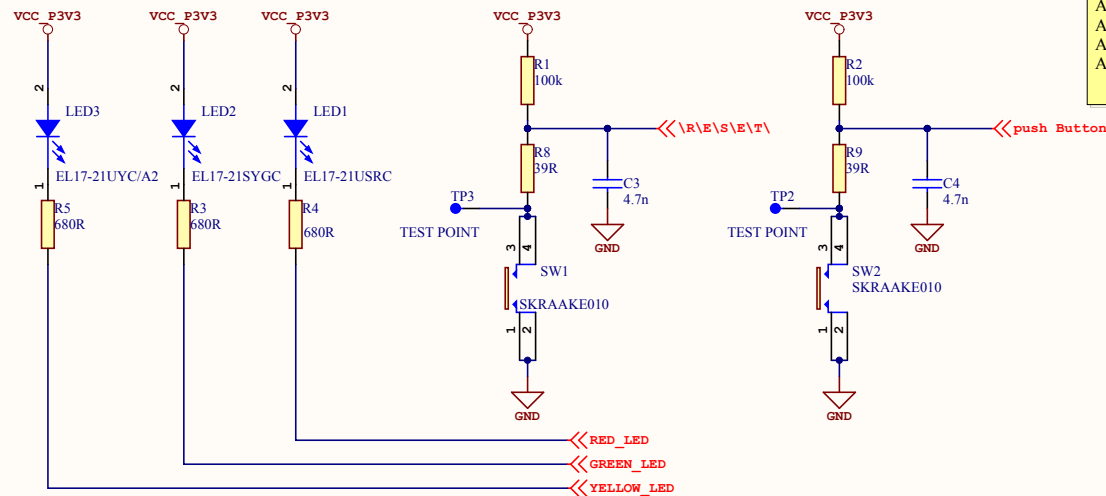
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RMZ Millenia 2	MSK			
143, Dr. MGR Roa				
Chennai				
Date:	6/19/2013	10:02:24 PM	PAGE:	2 of 4
Document number:	*		Revision:	4
TITLE: XPRO_Extension_Connector_Template_4L				
XPRO_Extension_ZB_Board_Connector.SchDoc				



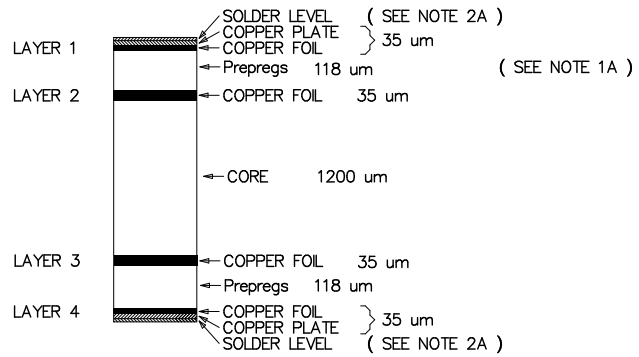
[DESIGN NOTE]
IMPORTANT NOTICE:

Z1 Can be

A09-1743	ATZB-RF-4-0-CN	rf_212B
A09-1729	ATZB-RF-3-1-C	rf_233
A09-1745	ATZB-X0-256-4-0-CN	xmega_212B
A09-1731	ATZB-X0-256-3-0-C	xmega_233
A09-1732	ATZB-S1-256-3-0-C	rf2

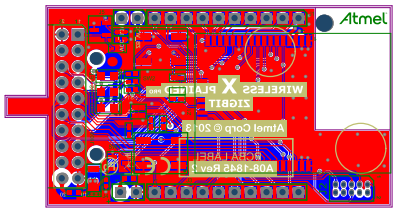


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Chennai			
Date:	6/19/2013	10:02:25 PM	PAGE: 3 of 4
Document number:	*		Revision: 4
TITLE: XPRO_Extension_Connector_Template_4L			
XPRO_Extension_ZB_Board.SchDoc			

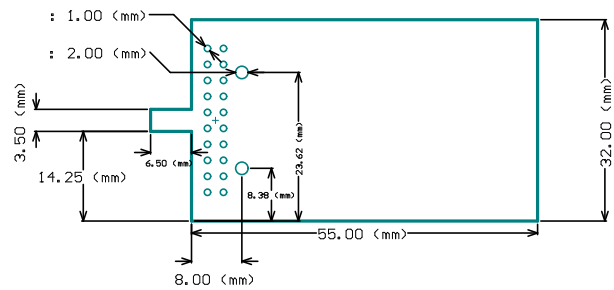


NOTE 1A: DIELECTRIC FR4
 NOTE 2A: SURFACE PROTECTION: Chemical Gold
 THE BOARD MUST BE RoHS COMPLIANT

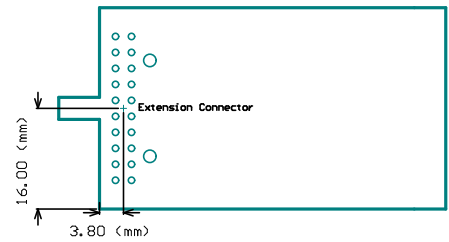
DETAIL A (CROSS-SECTION)
 SCALE = NONE



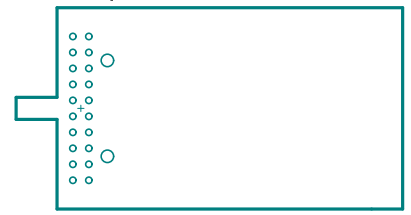
Mechanical Dimensions



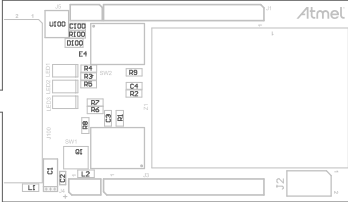
Connector Placement



Testpoint Placement



	ENGINEER:	TITLE:	
	PCB DESIGNER:		
DATE: 6/19/2013	FILE NAME: ZigBee Atmega256R2 1P10 Extension PCB.Dwg	PART NO.:	REV:
N-7075 Title		DWG NO.:	SCALE:





E1

TP2

ZB_VCC

VCC_3.3V

TPI

1

2

WIRELESS X PLAINED PRO
ZIGBIT

53

51

52

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TP3

POB LABEL
A08-1845 Rev 2



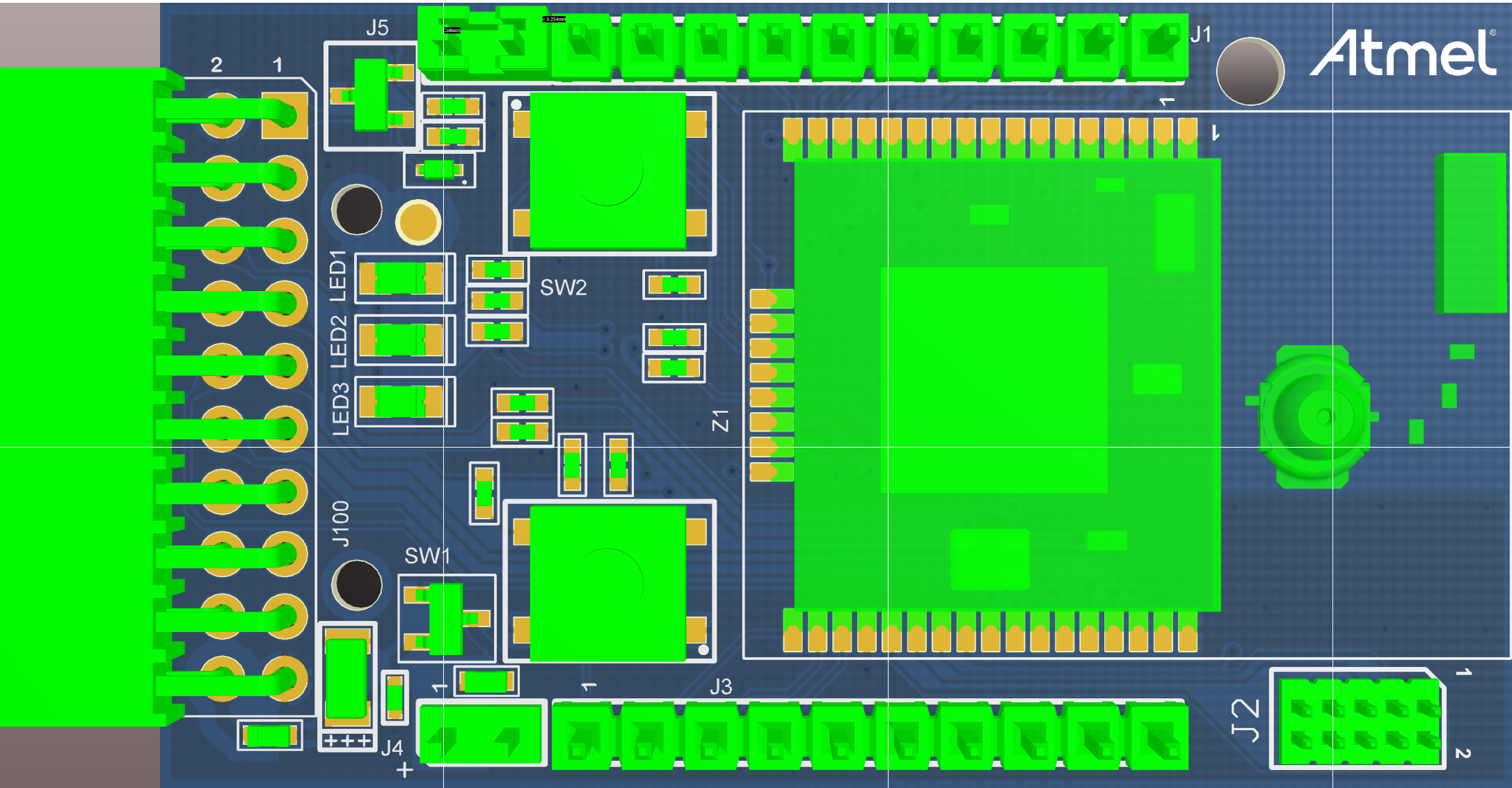
19

20



E2

Atmel®



2 1

J5

J1

LED3 LED2 LED1

SW2

Z1

J100

SW1

J3

J4

J2

1
2

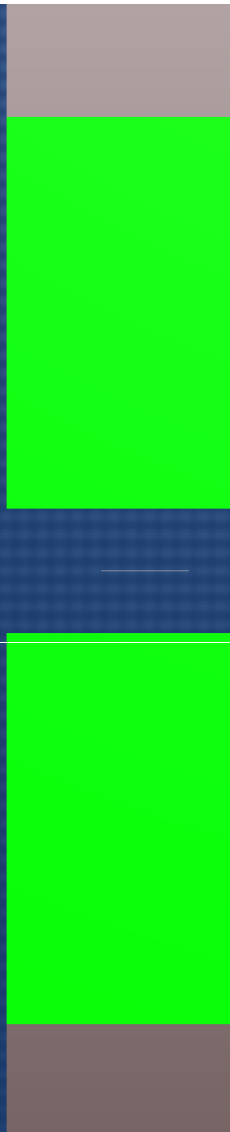
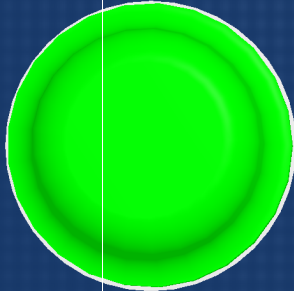
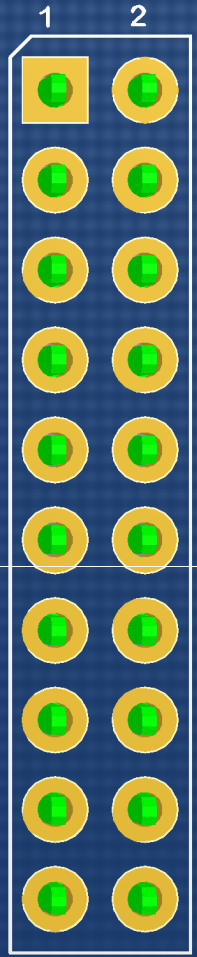
WIRELESS X PLAINED PRO
ZIGBIT

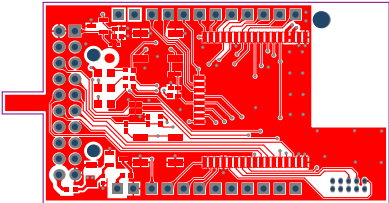
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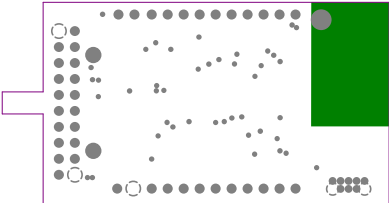
PCBA LABEL
A08-1845 Rev 2

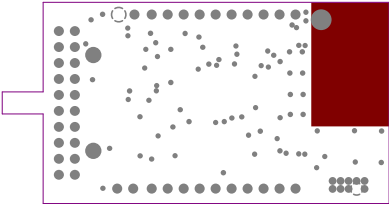
ZB_VCC
VCC_3.3V

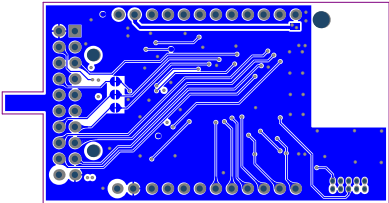
S3
S1
S2











Fitted	Designator	Quantity	MPN	Manufacturer	Value	Description	Comment
Fitted	C1	1	TR3A106K016C1700	vishay	10u	SMD tantalum capacitor, ESR = 1.7, 3216-18 (EIA) 1206,	CAP-POL
Fitted	C2	1	GRM155R71H1102K	Murata	1nF	Ceramic capacitor, SMD 0402, X7R, SOV, 10%, (die16672)	CAP-NONPOL
Fitted	C3, C4	2			4.7n	Ceramic capacitor, SMD 0402, X7R, 25V, +/-10% (die35287)	CAP-NONPOL
Fitted	C100	1	GRM155R60J475ME87D	Murata	4.7uF	Ceramic capacitor, SMD 0402, X5R, 6.3V, +/-20% (die33687)	Recommended by Escatec. No datasheet available yet.
Fitted	D100	1	BAT54XV2T1G	ON Semiconductor	BAT54XV2T1G	Schottky diode, If=200mA, Vf=0.35V, Ivrms=30V, SO0-529	Farnell# 1615809
Fitted	E1, E2	2	SJ-5076	3M	SJ-5076	2.3mm stainless steel, diam 8.0mm	RUBBER FEET
Fitted	FIXTURE1	1		ESCATEC	XPRO Zigbit Carrier Board Jupiter Test Fixture	XPRO Zigbit Carrier Board Jupiter Test Fixture	JIG
Fitted	J1, J3	2			PIN HEADER 1x10	1x10 pin header, 2.54mm pitch, THM	J1, J3
Fitted	J2	1	STL21-0730 G TT-10U	Gary	PIN HEADER 2x5	2x5 pin header, 1.27mm pitch, THM	HEADER 2x5
Fitted	J4, J5	2	CD075014 1X2	Freiber	CD075014 1X2	1x2 pin header, 2.54 mm pitch, Pin-in-Paste THM	HEADER 1x2
Fitted	J100	1	F201-2*10RGF-1W2NF	Pro-data International Corp	TF201-2*10RGF-W2-NF	2x10, female pin header receptacle, right-angled, 2.54mm pitch, THM, Pin In Paste	
Fitted	JS1	1	SNT-100-BK-G	SAMTEC	SNT-100-BK-G	Jumpier cap for 2.54mm pinheader	To be used by request from ESCATEC
Fitted	L1, L2	2	BLM18PG471S N1	Murata	BLM18PG471SN1	SMD RF inductor 0603, Z=470Ohm (@100MHz), Max R(d.c.)=0.65Ohm, Max current=1A	INDUCTOR
Fitted	LABEL1	1	505462	ACT Logimark AS	Label PCBA	PCBA identification label PP Top White Gloss	PCBA_LABEL
Fitted	LED1	1	EL17-21USRC	Everlight	EL17-21USRC	LED, Red, Wave length=639nm, SMD 0805, ±70°	LED_12
Fitted	LED2	1	EL17-21SYGC	Everlight	EL17-21SYGC	LED, Green, Wave length=575nm, SMD 0805, ±70°	LED_12
Fitted	LED3	1	17-21UYC/S530 A3/TR8	Everlight	EL17-21UYC/A2	LED, Yellow, Wave length=591nm, SMD 0805, ±70°	LED_12
Fitted	PCB1	1	A08-1845	NCAB	Zigbit Mega256RFR2 XPRO Extension PCB	Mega256RFR2 XPRO Extension PCB	PCB
Fitted	PCBA1	1		ESCATEC		Zigbit Mega256RFR2 XPRO Extension PCB documentation	DOCUMENTATION
Fitted	Q1	1	IRLML6402PBF	International Rectifier	IRLML6402PBF	MOSFET, N-Channel, 30V, -3.7A continuous, RDS(ON)=0.05Ohm@VGS=4.5V, RDS(ON)=0.08Ohm@VGS=2.5V	MOSFET_P_GSD
Fitted	R1, R2, R100	3			100k	Thick film resistor, SMD 0402, 1/16W, 1%	[NoValue], [NoValue], R2
Fitted	R3, R4, R5	3			680R	Thick film resistor, SMD 0402, 1/16W, 1%	R2
Fitted	R8, R9	2			39R	Thick film resistor, SMD 0402, 1/16W, 1%	R2
Fitted	SW1, SW2	2	SKRAAKE010	ALPS	SKRAAKE010	6.2x6.2mm SMD tact switch, same as A08-0091 but less force is needed	Can be ordered in low volumes from Mouser
Fitted	TEST1	1				XPRO Zigbit Carrier Board Fixture Test SW	TEST
Fitted	TESTDOC1	1				XPRO Zigbit Carrier Board production test procedure	TESTDOC
Fitted	U100	1	ATSHA204-TSUT	ATMEL	ATSHA204 SWI SOT23-3	ATSHA204 with 1-wire interface and SOT23-3 package	ATSHA204_SOT23
Fitted	Z1	1	ATZB-S-1-256-1-0-C	ATMEL	ATZB-S-1-256-1-0-C	Zigbit with ATmega256RFR2	ATZB-S-1-256-1-0-C
Not Fitted	R6, R7	0			0R	Thick film resistor, S	