

# Component list

Bill of Materials Print For Variant [Default\_assembly] of Project [ATMEGA256RFR2\_Xplained\_Pro.PrjPCB] (No PCB Document Selected)

Source Data From: ATMEGA256RFR2\_Xplained\_Pro.PrjPCB  
 Project: ATMEGA256RFR2\_Xplained\_Pro.PrjPCB  
 Variant: Default\_assembly

FCC ID  
VW4A091784



#	Designator	Quantity	Value	Manufacturer	MPN	Description
1	A600	1	2450AT18D0100	Johanson Technology	2450AT18D0100	2.45 GHz Ceramic Antenna
2	B600	1	2450BM15A0015E	Johanson Technology	2450BM15A0015E	Filtered Balun to match AT86RF232/233 (35288)
3	C100	1	4.7uF	tdk	C1608XSR1A475K	Ceramic capacitor, SMD 0603, XSR, 10V, 10% (dc31036)
4	C101	1	10u	vishay	TR3A106K016C1700	SMD tantalum capacitor, ESR = 1.7, 3216-18 (EIA) 1206,
5	C300, C302, C401, C402	4	22p			Ceramic capacitor, SMD 0402, NP0, 50V, +/-5%
6	C301	1	4.7n			Ceramic capacitor, SMD 0402, X7R, 25V, +/-10% (dc35287)
7	C303, C306	2	1u	Kemet	C0402C105K9PAC	Ceramic capacitor, SMD 0402, X5R, 6.3V, +/-10% (dc626942)
8	C304, C308, C309, C310, C311,	11	100n	Kemet	C0402C104K4RACTU	Ceramic capacitor, SMD 0402, X7R, 16V, +/-10%
9	C305, C307	2	12pF	Kyocera-avco	CM05CG120J50AH	Ceramic capacitor, SMD 0402, NP0, 50V, +/-5% (dc19819)
10	C403	1	10p			Ceramic capacitor, SMD 0402, NP0, 50V, +/-5%
11	C406, C410, C415, C416	4	2.2uF	Kemet	C0402C225M9PAC	Ceramic capacitor, SMD 0402, X5R, 6.3V, +/-20%
12	C407, C408, C409	3	1 nF COG	Murata	GRM1555C1H102JA01D	Ceramic capacitor, SMD 0402, COG, 50V, +/-5%
13	C602, C603, C604	3	22pF	Johanson Technology	250R05L220JV4T	Ceramic Capacitor, SMD 0201, 25V, NP0, 22PFF
14	D301, D402	2	EL17-21UYC/A2	Everlight	17-21UYC/SS30-A3TR8	LED, Yellow, Wave length=591nm, SMD 0805, +/-70°
15	D403	1	EL17-21SYGC	Everlight	EL17-21SYGC	LED, Green, Wave length=575nm, SMD 0805, +/-70°
16	D404	1	PRTRSV0U2X	Philips	PRTRSV0U2X	Double rail-to-rail USB ESD protection diode
17	DOC1	1	A08-1784 PCB.A Files	ATMEL		ATmega256RFR2 Xplained PRO PCB.A documentation
18	E1, E2, E3, E4	4	SJ-5076	3M		2.8mm adhesive fast, diam 8.0mm
19	FIXTURE1	1	Xplained PRO MCU board	ESCADEC	Xplained PRO MCU board Jupiter Test Fixture	Xplained PRO MCU board Jupiter Test Fixture
20	FW1	1	EDBG secured firmware			EDBG secured firmware
21	H101	1	P101-210RGF-139-ND		P101-210RGF-139-ND	Pin header, 2x2, Right Angle, 2.54mm, THM, Pin In Paste
22	I101	1	Pin header 1x2 right angle	Pro-data International Corp	2213R-2G	1x2 pin header, right angle, 2.54 mm pitch, through-hole
23	J200, J201, J202	3	P101-210RGF-139-ND		P101-210RGF-139-ND	Pin header, 2x10, Right Angle, 2.54mm, THM, Pin In Paste
24	J203, J204	2	HMTSW-110-23-F-D-237	SAMTEC	HMTSW-110-23-F-D-237	2x10 pin header, 2.54mm pitch, Pin-In-Paste THM
25	J401	1	10104111-0001LF	FCI	10104111-0001LF	Micro USB AB Connector
26	J600	1	19-46-1-TGG	Multicomp	19-46-1-TGG	SMA PCB mounted connector 50Ohm (dc19205)
27	JS100	1	SNT-100-BK-G	SAMTEC	SNT-100-BK-G	Jumpier cap for 2.54mm pinheader
28	L400	1	0603USB-142ML	Colcraft	0603USB-142ML	USB common-mode filter in 0603
29	L401, L402	2	BLM18PG471SN1	Murata	BLM18PG471SN1	SMD RF inductor 0603, Z=4700nH (@100MHz), Max R(dc)=0.85Ohm, Max current=1A
30	LABEL1	1	Label PCB.A with MAC64 and	ACT Logimark AS		Label for use on wireless PCB.A that needs 64 bit MAC and FCC ID
31	PCB1	1	ATMEGA256RFR2_Xplained	ATMEL	505462	ATMEGA256RFR2 XPRO PCB, 4 layer, 60mm x 100 mm
32	Q100, Q101, Q103	3	IRLML6402PBF	International Rectifier	IRLML6402PBF	P-ch. MOSFET, -30V, -3.7A continuous RDS(ON)=-0.050Ohm@VGS=-4.5V, RDS(ON)=-0.080Ohm@VGS=-2.5V
33	Q102	1	2N7002.215	IXP	2N7002.215	N-Channel MOSFET, 60V, 0.300A continuous, 1.2A Peak, RDS(ON)= 3.80Ohm@VGS=4.5V, VGS(th)<2.5V
34	Q400	1	2N7002DW	Fairchild	2N7002DW	Dual N-Channel MOSFET, 60V, 115mA cont.RDS(ON) < 7.5 Ohm @50mA@5V, SOT-363
35	R101, R104, R106, R410, R412	5	1M			Thick film resistor, SMD 0402, 1/16W, 1%
36	R102	1	30k			Thick film resistor, SMD 0402, 1/16W, 1%
37	R103	1	18k			Thick film resistor, SMD 0402, 1/16W, 1%
38	R107, R424	2	0R			Thick film resistor, SMD 0402, 1/16W, 1%
39	R108, R109	2	47k			Thick film resistor, SMD 0402, 1/16W, 1%
40	R300, R301, R303, R500, R501,	7	100k			Thick film resistor, SMD 0402, 1/16W, 1%
41	R302, R409, R411, R413, R415,	9	330R			Thick film resistor, SMD 0402, 1/16W, 1%
42	R305, R306, R420, R421	4	39R			Thick film resistor, SMD 0402, 1/16W, 1%
43	R308, R309, R310, R311	4	10k			Thick film resistor, SMD 0402, 1/16W, 1%
44	R404, R405, R406, R407, R408	5	1k			Thick film resistor, SMD 0402, 1/16W, 1%
45	R422	1	6.81k			Thick film resistor, SMD 0402, 1/16W, 1%
46	R502, R503	2	4.7k			Thick film resistor, SMD 0402, 1/16W, 1%
47	R600	1	0R	ROHM	MCR006Y2P-0000	Thick film resistor, SMD 0201, 1/20W, 5%
48	SW300, SW301	2	SKRAAKE010	ALPS	SKRAAKE010	6.2x6.2 mm SMD tact switch, same as A08-0091 but less force is needed
49	TEST1	1	ATmega256RFR2_Xplained	ATMEL		Fixture test for ATmega256RFR2_Xplained PRO
50	U100	1	SPX3819M5-L/TR	Exar	SPX3819M5-L/TR	500mA LDO, low noise, SOT23-6 package
51	U301	1	ATMEGA256RFR22U	ATMEL	ATMEGA256RFR22U	AVR Microcontroller with Low Power 2.4GHz Transceiver for IEEE 802.15.4 (dc35289)
52	U400	1	AT32UC3A4256J-CT1UR	ATMEL	AT32UC3A4256J-CT1UR	AVR 32-bit RISC MCU
53	U500	1	AT30TSE758	ATMEL	AT30TSE758-MA8-T	SINGLE DIGITAL TEMPERATURE SENSOR W/ SERIAL EEPROM, UDFN8
54	U600	1	AS222-92LF	SKYWORKS SOLUTIONS	AS222-92LF	PHENIT SPDT Analog SWITCH, 0.1-3 GHz
55	XC300	1	32.768kHz	GEYER ELECTRONIC	12.87150	32.768kHz XX-327NHT, 3.2 x 1.5 mm SMD 20gpm (dc19774)
56	XC301	1	16.0MHz	GEYER ELECTRONIC	12.88785	3.2X2.5mm, 10/15/5ppm, 9pF, 800Ohm (dc33221)
57	XC400	1	12.0MHz	Fox Electronics	FQ5032B-12-C-C-C-200-1	For FQ5032B 12.0MHz SMD crystal 738B-12
58	C404	0	4.7n			Ceramic capacitor, SMD 0402, X7R, 25V, +/-10%
59	C600, C601	0	22pF	Johanson Technology	250R05L220JV4T	Ceramic Capacitor, SMD 0201, 25V, NP0, 22PFF
60	C605, C606	0	22p			Ceramic capacitor, SMD 0402, NP0, 50V, +/-5%
61	J301	0	PIN HEADER 1x6 THM	SAMTEC	TSW-105-26-L-S	1x6 pin header, 2.54 mm pitch, THM
62	J323	0	PIN HEADER 1x6 PIP	Freiber	CD0750141 X6T&R	1x6 pin header, 2.54mm pitch, THM Pin-In-Paste
63	R423	0	1M	KOA	RK73H1ETTTP1004F	Thick film resistor, SMD 0402, 1/16W, 1%

Approved	Notes