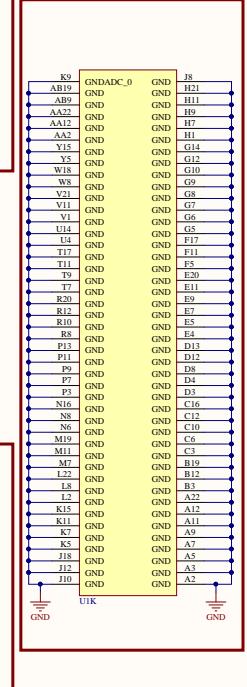
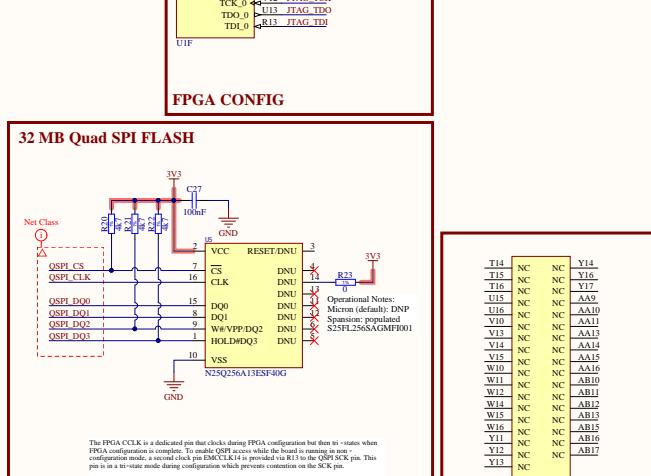
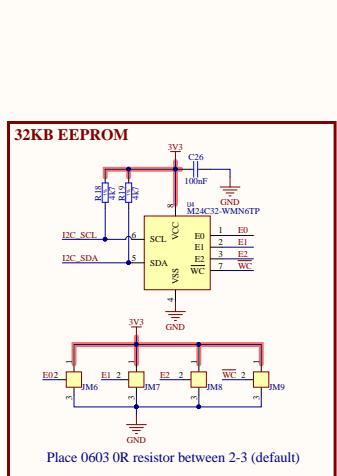
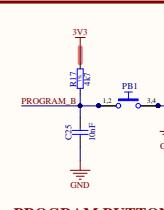
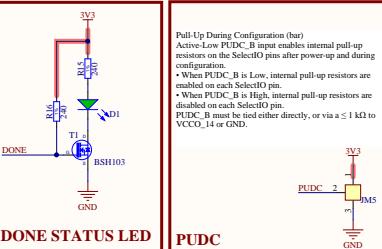


FPGA I/O

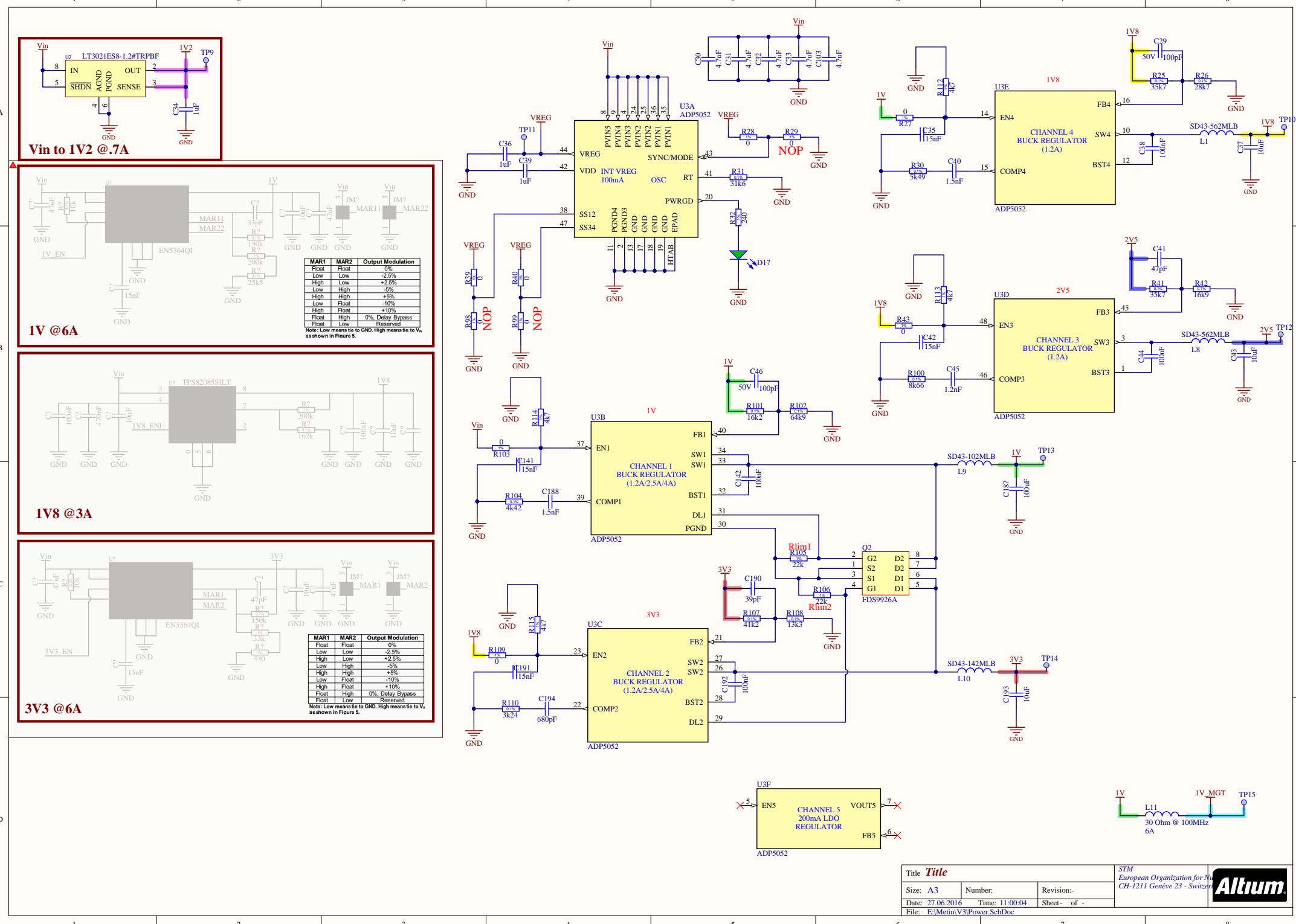
	Configuration Mode	M0#	Pin Name	CGK Direction
Master Serial	000	x1		Output
Master SPI	001	x2, x3, x4		
Master NCSI	010	x5, x6, x7		
Master NCSI#ZIF	100	x8		New Application
Slave Serial#ZIF	110	x9		
Slave Serial#ZIF#	111	x10		

FPGA POWER & DECOUPLING CAPS

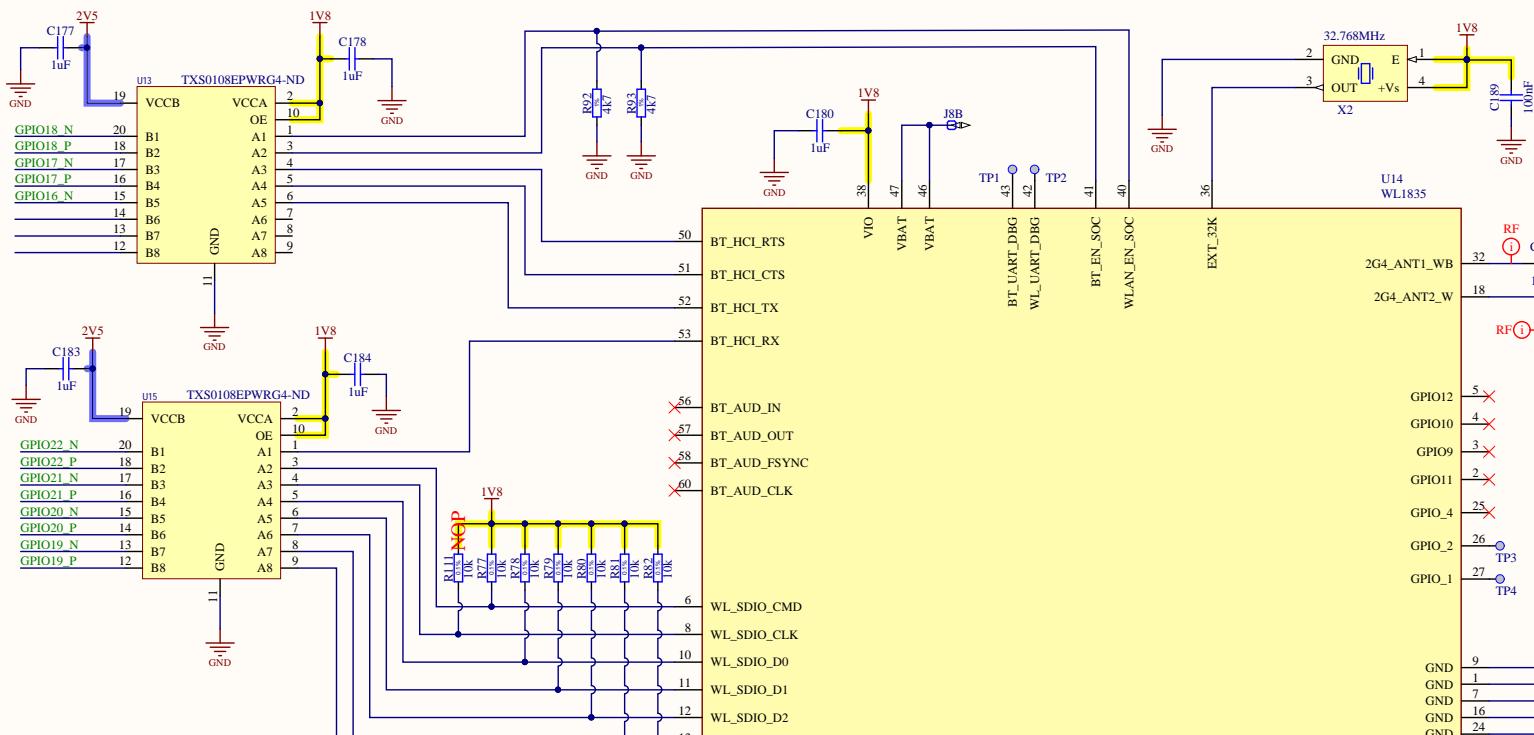
MGT TRANSCEIVERS



Title *	* /
Size: A2	Number: *
Date: 27.06.2016	Revision: *
File: E:/Metin/V3/FPGA.SchDoc	Sheet # of *



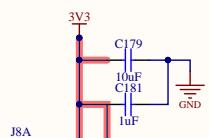
BT UART BT_HCI_RTS - Connect to the Host CTS
 BT UART BT_HCI_CTS - Connect to the Host RTS
 BT UART BT_HCI_Tx - Connect to the Host RX
 BT UART BT_HCI_Rx - Connect to the Host TX



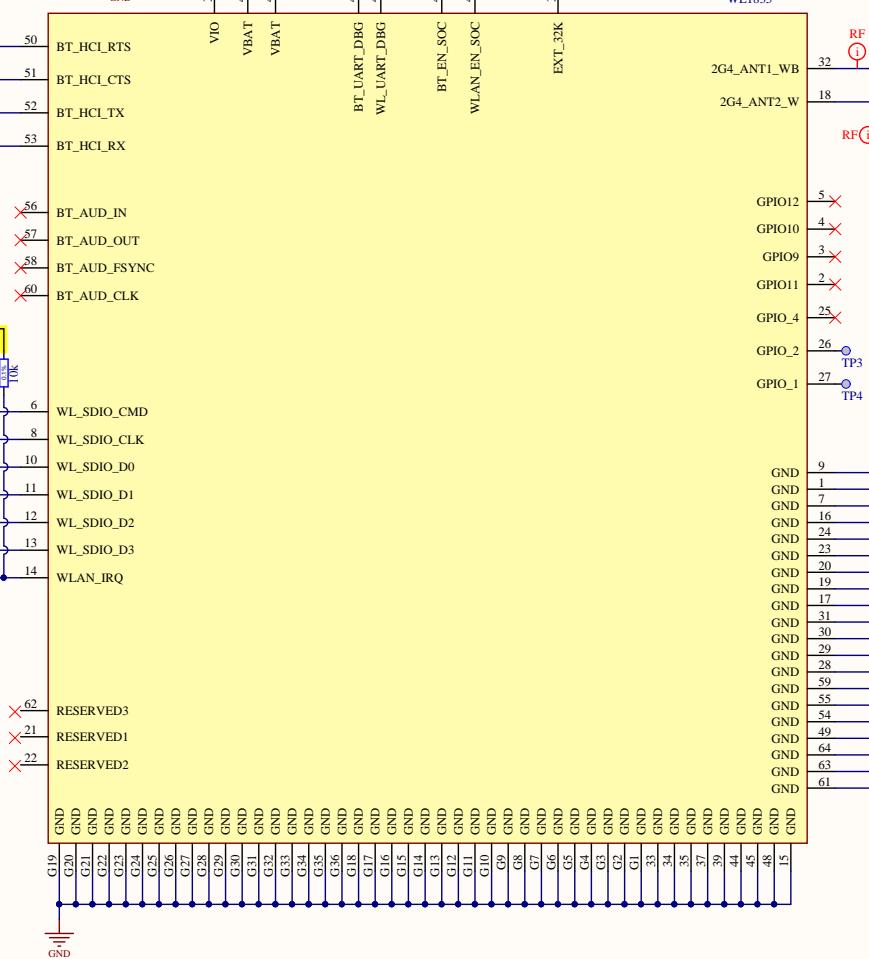
Thermal
 1 The proximity of ground vias must be close to the pad.
 2 Signal traces must not be run underneath the module on the layer where the module is mounted.

3 Have a complete ground pour in layer 2 for thermal dissipation.
 4 Have a solid ground plane and ground vias under the module for stable system and thermal dissipation.
 5 Increase the ground pour in the first layer and have all of the traces from the first layer on the inner layers, if possible.
 6 Signal traces can be run on a third layer under the solid ground layer, which is below the module mounting layer.

RF Trace and Antenna Routing
 7 The RF trace antenna feed must be as short as possible beyond the ground reference. At this point, the trace starts to radiate.
 8 The RF trace bends must be gradual with an approximate maximum bend of 45 degrees with trace mitered. RF traces must not have sharp corners.
 9 RF traces must have via stitching on the ground plane beside the RF trace on both sides.
 10 RF traces must have constant impedance (microstrip transmission line).
 11 For best results, the RF trace ground layer must be the ground layer immediately below the RF trace. The ground layer must be solid.
 12 There must be no traces or ground under the antenna section.
 13 RF traces must be as short as possible. The antenna, RF traces, and modules must be on the edge of the PCB product. The proximity of the antenna to the enclosure and the enclosure material must also be considered.



Supply and Interface
 14 The power trace for VBAT must be at least 40-mil wide.
 15 The 1.8-V trace must be at least 18-mil wide.
 16 Make VBAT traces as wide as possible to ensure reduced inductance and trace resistance.
 17 If possible, shield VBAT traces with ground above, below, and beside the traces.
 18 SDIO signals traces (CLK, CMD, D0, D1, D2, and D3) must be routed in parallel to each other and as short as possible (less than 12 cm). In addition, every trace length must be the same as the others. There should be enough space between traces – greater than 1.5 times the trace width or ground – to ensure signal quality, especially for the SDIO_CLK trace. Remember to keep these traces away from the other digital or analog signal traces. TI recommends adding ground shielding around these buses.
 19 SDIO and digital clock signals are a source of noise. Keep the traces of these signals as short as possible. If possible, maintain a clearance around them.



Title *	*	*	*
Size: A3	Number:*	Revision:*	*
Date: 27.06.2016	Time: 11:00:04	Sheet: * of *	*
File: E:\Metin\V3\WLAN.SchDoc			

Altium

Component list

<Parameter Title not found>

Source Data From:

Project:

Variant:

V3.PjPcb

V3.PjPcb

None



#	LibRef	#Column Name Error:Manufacturer	imn Name Error:Manufacturer	olumn Name Error:Part#	Description	Footprint	#Column Name Error:Package Reference	Quantity
1	CC0603_100nF_50V_10%_X7R				Non-polarised capacitor	CAPC1608X87N		49
2	CC0603_10nF_50V_10%_X7R				Non-polarised capacitor	CAPC1608X87N		14
3	CC0603_100pF_50V_5%_NP0				Non-polarised capacitor	CAPC1608X87N		2
4	CC0805_4.7uF_10V_10%_X5R				Non-polarised capacitor	CAPC2012X135N		5
5	CC0603_1uF_25V_10%_X7R				Non-polarised capacitor	CAPC1608X87N		10
6	CC0603_15nF_50V_10%_X7R				Non-polarised capacitor	CAPC1608X87N		4
7	CC1206_10uF_16V_10%_X7R				Non-polarised capacitor	CAPC3216X140N		3
8	CC0603_1.5nF_50V_10%_X7R				Non-polarised capacitor	CAPC1608X87N		2
9	CC0603_1.5nF_50V_5%_NP0				Non-polarised capacitor	CAPC1608X85N		1
10	CC0805PS03_3.2nF_16V_5%_PANASONIC_E24UH				Non-polarised capacitor	CAPC1608X85N		1
11	CC0603_470nF_16V_10%_X5R				Non-polarised capacitor	CAPC1608X87N		42
12	CC0805_47uF_6.3V_20%_X5R				Non-polarised capacitor	CAPC2012X140N		8
13	CC0603_4.7uF_6.3V_10%_X5R				Non-polarised capacitor	CAPC1608X87N		20
14	CC1206_100uF_6.3V_20%_X5R				Non-polarised capacitor	CAPC3216X180N		4
15	CC0805_22uF_16V_10%_X5R				Non-polarised capacitor	CAPC2012X135N		4
16	CC0603_18pF_50V_5%_NP0				Non-polarised capacitor	CAPC1608X87N		2
17	CC0805_10uF_10V_10%_X7R				Non-polarised capacitor	CAPC2012X135N		1
18	CC0603_10pF_50V_5%_NP0				Non-polarised capacitor	CAPC1608X87N		2
19	CC1210_100uF_6.3V_20%_X5R				Non-polarised capacitor	CAPC3225X270N		1
20	CC0603_39pF_50V_5%_NP0				Non-polarised capacitor	CAPC1608X87N		1
21	CC0603_680pF_50V_5%_NP0				Non-polarised capacitor	CAPC1608X87N		1
22	LED0603				Diode, LED, 0603, Green	LED0603		7
23	FRTRSV0U2X				Ultra Low Capacitance Double Rail-to-Rail ESD Protection Diode	SOT190P230X110-4N		10
24	TYCO_5-6605308-1				1 Port, Yellow/Green LED, RJ45 10/100Base-T Ethernet, Mag45 Connector Module With Integrated Magnetics	TYCO_5-6605308-1		5
25	HUBER-SUHNER_82_SMA-50-0-41133_NE					HUBER-SUHNER_82 SMA-50-0-41/133 NE		2
26	COMATEL_385.0358.1.02.400				2 Mini Wire-Wrap Contact Strip Header	COMATEL_385.0358.1.02.400		1
27	Jumper_0R					JUMPER_0R		14
28	SDM3				Shielded SMD Power Inductors	sd43		4
29	IND0603_TDK_MPZ-1608R391A				Inductor	INDC1608X95N		6
30	MPZ2012S300A0T000					FERRITE CHIP 30 OHM 6A 0805	R0805	1
31	BTH-030-01-FDA				Connector Parallel	BTH-030-01-F-D-A		4
32	Connector_14_Male				Connector 14 Male	MOLEX_87832-1420		2
33	MOLEX_26-60-4020				Connector 2 Male	MOLEX_26-60-4020		1
34	PB_TYCO_FSM2JISMA				Push-Button Switch SPDT	PB_TYCO_FSM2JISMA		1
35	XITAL_25MHz_ABRACON_ABL5-25.000MHz-Z-B2Z-T				Quartz Crystal	XITAL1140X470X160N		1
36	FDS9926A					SIO8		1
37	R0603_51K_1%_0.1W_100PPM				Resistor - 1%	RESC1608X55N		12
38	R0603_0R_JUMPER				Resistor - 1%	RESC1608X55N		14
39	R0603_2K2_1%_0.1W_100PPM				Resistor - 1%	RESC1608X55N		1
40	R0603_240K_1%_0.1W_100PPM				Resistor - 1%	RESC1608X55N		8
41	R0603_4K7_1%_0.1W_100PPM				Resistor - 1%	RESC1608X55N		17
42	R0603_39K_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		2
43	R0603_28K_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		1
44	R0603_5K4K_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		1
45	R0603_31K6K_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		1
46	R0603_100R_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		1
47	R0603_49R9_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		38
48	R0603_16K9_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		1
49	R1206_0R_JUMPER				Resistor - 1%	RESC3216X65N		1
50	R0603_3K01_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		1
51	R0603_10K_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		7
52	R0603_8K66_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		1
53	R0603_16K2_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		1
54	R0603_64K9_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		1
55	R0603_4K42_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		1
56	R0603_22K_1%_0.1W_100PPM				Resistor - 1%	RESC1608X55N		2
57	R0603_41K2_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		1
58	R0603_13K3_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		1
59	R0603_3K24_0.1%_0.063W_10PPM				Resistor - 0.1%	RESC1608X55N		1
60	GB042-34P-H10				Connector, 88MC	GB042-34P-H10		12
61	BSH103				N-CHANNEL MOSFET WITH DIODE	SOT195P230X110-3N		1
62	XLNX-XCTA50T-FGG484					FGG484		1
63	L13021-1.2				IC REG LDO 1.2V 0.5A 8SOIC	SIO8		1
64	ADP95052ACPZ-R7				Imported	CP-48-13_M		1
65	M24C32-VM6N8TP				IC EEPROM 32KBIT 400KHZ 8SO	SIO8		2
66	N25Q256A13ESF40G				IC FLASH 256MBIT 108MHz 16SO	SIOIC16W		1
67	K58995MA				IC SWITCH 1/100 SPORT 128POFF	K58995MA		1
68	LT1118CS8-2.5				IC REG LDO 2.5V 0.8A 8SOIC	SIO8		1
69	TXS0108EPWR				IC 8BIT NON-INVERTING TRANSLATOR 20TSOP	SOT195P230X110-20N		2
70	WL1835				MODULE WiFi/WiLINK	E-13.4X13.3-R100.0-0.75-TOP		1
71	S108BA200XKOBAG				Oscillator 4 pins T=1-E2-GND 3=OUT 4=V _S	OSCSC508P500X700X180-4N		1
72	OSC_32.768MHz_RAKON_LF				Oscillator 4 pins T=1-E2-GND 3=OUT 4=V _S	OSCSC508P500X700X180-4N		1
	SPX0019203							

Approved

Notes

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