



Preliminary BOM SM1230 - 868MHZ

BOM # V1a

SCH # e117V02a

7/16/2009

EMr

Version e117V02a

PCB # e117V02a

RefDes	MPN	Geom	Value	Qty	Description	Manufacturer
IC						
U1	SX12301066TRT	VQFN24	SX1230	1	SX1230 narrow/wideband RF transmitter	Semtech
Resistors						
R1		0402	DNP	0	uC mode	
R2	CRCW040210K0FKED	0402	0R	1	Thick Film Resistor ±1%, 1/16W	Vishay/Dale
R3	CRCW040210K0FKED	0402	10k	1	Thick Film Resistor ±1%, 1/16W	Vishay/Dale
R4		0402	DNP	0		
R5	CRCW0402100KFKED	0402	100k	1	Thick Film Resistor ±1%, 1/16W	Vishay/Dale
R6	CRCW0402100KFKED	0402	100k	1	Thick Film Resistor ±1%, 1/16W	Vishay/Dale
R7	CRCW0402100KFKED	0402	100k	1	Thick Film Resistor ±1%, 1/16W	Vishay/Dale
R8	CRCW04020000Z0ED	0402	0R	1	Thick Film Resistor ±1%, 1/16W	Vishay/Dale
R9		0402	DNP	0		
R10		0402	DNP	0		
R11		0402	DNP	0		
R12	CRCW04020000Z0ED	0402	0R	1	Thick Film Resistor ±5%, 1/16W	Vishay/Dale
R13	CRCW04020000Z0ED	0402	0R	1	Thick Film Resistor ±5%, 1/16W	Vishay/Dale
R14	CRCW04020000Z0ED	0402	0R	1	Thick Film Resistor ±5%, 1/16W	Vishay/Dale
R15	CRCW04020000Z0ED	0402	0R	1	Thick Film Resistor ±5%, 1/16W	Vishay/Dale
R16	CRCW04020000Z0ED	0402	0R	1	Thick Film Resistor ±5%, 1/16W	Vishay/Dale
R17	CRCW04020000Z0ED	0402	0R	1	Thick Film Resistor ±5%, 1/16W	Vishay/Dale
R18		0402	DNP	0		
R19		0402	DNP	0		
R20	CRCW04020000Z0ED	0402	0R	1	Thick Film Resistor ±5%, 1/16W	Vishay/Dale
R21	CRCW04020000Z0ED	0402	0R	1	Thick Film Resistor ±5%, 1/16W	Vishay/Dale
R315		0402	DNP	0		
R434		0402	DNP	0		
R868	CRCW04020000Z0ED	0402	0R	1	Thick Film Resistor ±5%, 1/16W	Vishay/Dale
R915		0402	DNP	0		
Capacitors						
C1	GRM188R60J106ME47	0603	10µF	1	Multilayer ceramic capacitors X5R ±20%, 6.3V	Murata
C2	GRM1555C1H3R3CZ01	0402	3.3pF	1	Multilayer ceramic capacitors C0G ±0.25pF, 50V	Murata
C3	CC0402BRNP09BNR56	0402	0.56pF	1	Multilayer ceramic capacitors NP0 ±0.1pF, 50V	Yageo/Phycom
C4	GRM1555C1H8R2DZ01	0402	8.2pF	1	Multilayer ceramic capacitors C0G ±0.5pF, 50V	Murata
C5		0402	DNP	0		
C6	GRM1555C1H220JZ01	0402	22pF	1	Multilayer ceramic capacitors C0G ±5%, 50V	Murata
C7	GRM1555C1H8R2DZ01	0402	8.2pF	1	Multilayer ceramic capacitors C0G ±0.5pF, 50V	Murata
C8	GRM155R71C103KA01	0402	10nF	1	Multilayer ceramic capacitors X7R ±10%, 16V	Murata
C9		0402	DNP	0		
C10	GRM155R71C104KA88	0402	100nF	1	Multilayer ceramic capacitors X7R ±10%, 16V	Murata
C11	GRM155R71C104KA88	0402	100nF	1	Multilayer ceramic capacitors X7R ±10%, 16V	Murata
C12	GRM1555C1H150JZ01	0402	15pF	1	Multilayer ceramic capacitors C0G ±5%, 50V	Murata
C13	GRM1555C1H150JZ01	0402	15pF	1	Multilayer ceramic capacitors C0G ±5%, 50V	Murata
C14	GRM155R71C104KA88	0402	100nF	1	Multilayer ceramic capacitors X7R ±10%, 16V	Murata
C15		0402	DNP	0		
Inductors						
L1	LQW15AN5N6C10D	0402	5.6nH	1	Wirewound Inductor ±0.2nH	Murata
L2	LQW15AN5N6C10D	0402	5.6nH	1	Wirewound Inductor ±0.2nH	Murata
L3	LQW15AN22NG00D	0402	22nH	1	Wirewound Inductor ±0.2nH	Murata
L4	LQW15AN2N2C10D	0402	2.2nH	1	Wirewound Inductor ±0.2nH	Murata
Crystal						
Q1	NX2520SA-32.00000MHZ	nx2520sa	32.000MHz	1	Surface mount type crystal units, ±10ppm, Cload=10pF	NDK
Connectors (or equivalent)						
J1	901-144-8RFX	SMA Straight	50 Ohms	1	SMA Straight jack receptacle for PCB mount	Amphenol
J2	826629-2	bridge 2p 2.54mm	2.54mm	1	Through hole vertical header single row - 2 positions	Tyco Electronics
J3	826629-3	bridge 3p 2.54mm	2.54mm	1	Through hole vertical header single row - 3 positions	Tyco Electronics
POD_IN1	PEC10DACN	HDR2X10	2.54mm	1	Through hole dual row male connector, double side	Sullins
GND1	826629-1	pin 1mm	-	1	Through hole vertical pin	Tyco Electronics
PB(0)	826629-1	pin 1mm	-	0	Through hole vertical pin	Tyco Electronics
PB(1)	826629-1	pin 1mm	-	0	Through hole vertical pin	Tyco Electronics
PB(2)	826629-1	pin 1mm	-	0	Through hole vertical pin	Tyco Electronics
PB(3)	826629-1	pin 1mm	-	0	Through hole vertical pin	Tyco Electronics
RESET	826629-1	pin 1mm	-	1	Through hole vertical pin	Tyco Electronics
TEST	826629-1	pin 1mm	-	0	Through hole vertical pin	Tyco Electronics
VBAT	826629-1	pin 1mm	-	1	Through hole vertical pin	Tyco Electronics
VR_ANA	826629-1	pin 1mm	-	0	Through hole vertical pin	Tyco Electronics
VR_DIG	826629-1	pin 1mm	-	0	Through hole vertical pin	Tyco Electronics
VR_PA	826629-1	pin 1mm	-	0	Through hole vertical pin	Tyco Electronics
Switches						
SW0	FSM2JSMA	SW_PB	-	0	Surface mount tactile switch 6.0x6.0mm	Tyco Electronics
SW1	FSM2JSMA	SW_PB	-	0	Surface mount tactile switch 6.0x6.0mm	Tyco Electronics
SW2	FSM2JSMA	SW_PB	-	0	Surface mount tactile switch 6.0x6.0mm	Tyco Electronics
SW3	FSM2JSMA	SW_PB	-	0	Surface mount tactile switch 6.0x6.0mm	Tyco Electronics
Optional components or not used						
U2	CAT25040	TDFN8	CAT25040	0	4K SPI Serial CMOS EEPROM	Catalyst
U3		SOT23A		0	Mosfet-N	

	Populated Components
	Not Populated Components