

TIER's VBTS Wakeup Radio V 1.0

Schematic Reference number	Part name	Pcs/unit	Description	Manufacturer	Part number	Supplier	Ordering code	Ref Link
IC1	CC1150	1	Single Chip Transmitter	TI	CC1150	MOUSER	839-CC1150	OK
IC2	CC1190	1	PA 26dbm	TI	CC1190	Digikey	296-25826-1-ND	OK
IC3	B3588	1	SAW filter, 915 MHz	EPCOS Inc	B3588	Digikey	495-1674-1-ND	OK
IC4	MSP430F2274	1	MSP430 Microcontroller	TI	MSP430F2274	Digikey	296-21459-1-ND	OK
C14	C_0P8_0402_NP0_B_50	1	Capacitor, 0.8p, 0402, NP0, +/-0.1pF, 50V	Murata	GRM1555C1HR80BZ01D	MOUSER	81-GRM1555C1HR80BZ1D	OK
C27; C28; C23; C22; C21; C24	C_100N_0402_X5R_K_10	6	Capacitor, 100n, 0402, X5R, 10%, 10V	Murata	GRM155R71A104KA01D	MOUSER	81-GRM155R71A104KA1D	OK
C17	C_100P_0402_NP0_J_50	1	Capacitor, 100p, 0402, NP0, 5%, 50V	Murata	GRM1555C1H101JZ01D	Digikey	490-3458-1-ND	OK
C19	C_10U_0603_X5R_M_4	1	Capacitor, 10u, 0603, X5R, 20%, 4V	Murata	GRM188R60G106ME47D	Digikey	490-3298-1-ND	OK
C4;C8; C26	C_12P_0402_NP0_J_50	3	Capacitor, 12p, 0402, NP0, 5%, 50V	Murata	GRM1555C1H120JZ01D	Digikey	490-1279-1-ND	OK
C25; C13	C_15P_0402_NP0_J_50	2	Capacitor, 15p, 0402, NP0, 5%, 50V	Murata	GRM1555C1H150JZ01D	Digikey	490-1280-1-ND	OK
C10	C_1N_0402_NP0_J_50	1	Capacitor, 1n, 0402, NP0, 5%, 50V	Murata	GRM1555C1H102JA01D	Digikey	490-3244-1-ND	OK
C18	C_1P0_0402_NP0_C_50	1	Capacitor, 1p, 0402, NP0, +/-0.25pF 50V	Murata	GRM1555C1H1R0CZ01D	Digikey	490-3199-1-ND	OK
C16; C29	C_1P5_0402_NP0_C_50	2	Capacitor, 1p5, 0402, NP0, +/-0.25pF, 50V	Murata	GRM1555C1H1R5CZ01D	Digikey	490-1266-1-ND	OK
C31, C11	C_1U_0402_X5R_K_6P3	2	Capacitor, 1u, 0402, X5R, 10%, 6.3V	Murata	GRM155R60J105KE19D	Digikey	490-1320-1-ND	OK
C20	C_220P_0402_NP0_J_50	1	Capacitor, 220p, 0402, NP0, 5%, 50V	Murata	GRM1555C1H221JA01D	Digikey	490-1293-1-ND	OK
C12	C_27P_0402_NP0_J_50	1	Capacitor, 27p, 0402, NP0, 5%, 50V	Murata	GRM1555C1H270JZ01D	Digikey	490-1284-1-ND	OK
C5	C_3P3_0402_NP0_C_50	1	Capacitor, 3p3, 0402, NP0, +/-0.25pF, 50V	Murata	GRM1555C1H3R3CZ01D	Digikey	490-1270-1-ND	OK
C3;C9;C15	C_47P_0402_NP0_J_50	3	Capacitor, 47p, 0402, NP0, 5%, 50V	Murata	GRM1555C1H470JZ01D	Digikey	490-1287-1-ND	OK
C6	C_7P5_0402_NP0_C_50	1	Capacitor, 7p5, 0402, NP0, +/-0.25pF 50V	Murata	GRM1556T1H7R5CD01D	MOUSER	81-GRM1556T1H7R5CD01D	OK
L6	L_10N_0402_G_LQW	1	Inductor, 10n, 0402, ±2%, wire-wound type	Murata	LQW15AN10NG00D	MOUSER	81-LQW15AN10NG00D	OK
L11	L_11N_0402_J_LQW	1	Inductor, 11n, 0402, ±5%, wire-wound type	Murata	LQW15AN11NJ00	MOUSER	81-LQW15AN11NH00D	OK
L7; L8	L_12N_0402_J_LQW	2	Inductor, 12n, 0402, ±5%, wire-wound type	Murata	LQW15AN12NJ00D	Digikey	490-1147-1-ND	OK
L2; L9	L_18N_0402_J_LQW	2	Inductor, 18n, 0402, ±5%, wire-wound type	Murata	LQW15AN18NJ00D	Digikey	490-1149-1-ND	OK
L12	L_1N5_0402_S	1	Inductor, 1n5, 0402, Monolithic type, +/-0.3 nH	Murata	LQG15HS1N5S02D	Digikey	490-2612-1-ND	OK
L5	L_22N_0603_J_LQW	1	Inductor, 22n, 0603, ±5%, wire-wound type	Murata	LQW18AN22NJ10	MOUSER	81-LQW18AN22NJ10	OK
L3	L_2N9_0402_B_LQW	1	Inductor, 2n9, 0402, wire-wound type, ±0.1nH	Murata	LQW15AN2N9B00D	MOUSER	81-LQW15AN2N9B00D	OK
L1	L_7N5_0402_G_LQW	1	Inductor, 7n5, 0402, ±2%, wire-wound type	Murata	LQW15AN7N5G00	MOUSER	81-LQW15AN7N5G00	OK
L4	L_9N1_0402_G_LQW	1	Inductor, 9n1, 0402, ±2%, wire-wound type	Murata	LQW15AN9N1G00D	MOUSER	81-LQW15AN9N1G00D	OK
L10	L_BEAD_102_0402	1	EMI filter bead, 0402 1k ohms Tape GHz Band Gen Use	Murata	BLM15HG102SN1D	Digikey	490-3999-1-ND	OK
R18, R17,R7	R_10K_0402_F	3	Resistor, 10k ohms, 0402, ±1%	Koa	RK73H1ETTP1002F	MOUSER	660-RK73H1ETTP1002F	OK
R3	R_10_0402_G	1	Resistor, 10 ohms, 0402, 2%	Koa	RK73H1ETTP10R0F (±1%)	MOUSER	660-RK73H1ETTP10R0F	OK
R2	R_3K3_0402_F	1	Resistor, 3k3 ohms, 0402, ±1%	Koa	RK73H1ETTP3301F	MOUSER	660-RK73H1ETTP3301F	OK
R4	R_47_0402_G	1	Resistor, 47 ohms, 0402, 2%	Koa	RK73H1ETTP47R0F (±1%)	MOUSER	660-RK73H1ETTP47R0F	OK
R6	R_56K_0402_F	1	Resistor, 56k ohms, 0402, ±1%	Koa	RK73H1ETTP5602F	MOUSER	660-RK73H1ETTP5602F	OK
P5	Shield BMIS-202	1	Surface Mount Shield Two-Piece. Cover ordered separately	Laird	BMI-S-202-F	Digikey	903-1051-1-ND	OK
P5 COVER	Shield BMIS-202 cover	1	Cover for SHIELD BMIS-202	Laird	BMI-S-202-C	Digikey	903-1014-ND	OK
X1	X_26.000/20/40/40/10	1	Crystal, 26.000000MHz, 10.0pF, 50 ohms max, 20/40 ppm, -40C to +8	NDK	NX3225GA, EXS00A-CG019	Digikey	644-1160-1-ND	OK
X2	CONSMA002-SMD-ND	1	SMA connector, right angle	Linx Technologies	CONSMA002-SMD-ND	Digikey	CONSMA002-SMD-ND	OK
R1	TRR03EZPJ000	1	0 Ohms	Rohm	TRR03EZPJ000	Digikey	RHM0.0BKCT-ND	OK
R5	MCR03-0603	1	RES 47K OHM 1/10W 5% 0603 SMD	Rohm	MCR03-0603	Digikey	RHM47KCGCT-ND	OK
C1, C2	GRM188R71H104KA93D	2	Capacitor 100nF	Murata	GRM188R71H104KA93D	Digikey	490-1519-1-ND	OK
S1	JS102000SAQN	1	Slide switch SMD	C & K Components	401-2005-1-ND	Digikey	401-2005-1-ND	OK
C30	EMK212B7105KG-T	1	Capacitor 1uF	Taivo Yuden	EMK212B7105KG-T	Digikey	587-1283-1-ND	OK
Q1	FDN360	1	Voltage Switches	Fair Child Semiconductor	FDN306PCT-ND	Digikey	FDN306PCT-ND	OK
Battery Holder	BU2032	1	Coin battery holder	MPD	BU2032SM-JJ-GCT-ND	Digikey	BU2032SM-JJ-GCT-ND	OK
Coin Battery	P189-ND	1	220MAh coin battery	Panasonic	P189	Digikey	P189-ND	OK
SW1	CKN10226CT-ND	1	Button Switch	C & K Components	CKN10226CT-ND	Digikey	CKN10226CT-ND	OK
S4	ADE08S04	1	DIP Switch 8	TE Connectivity	1-1825058-9-ND	Digikey	1-1825058-9-ND	OK
ST1	ED87100-ND	1	Connection header 1.27	MIL MAX	ED87100-ND	Digikey	ED87100-ND	OK
U1	LTC4412	1	Power Patch Controller	Linear Technology	LTC4412	Digikey	LTC4412IS6#TRMPBFCT-ND	OK

TOTAL COMPONENTS

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