

Bill of Materials

Item Number	Quantity	Status	Part Reference	Notes	Value	PCB Footprint	Part Description	Manufacturer Part Number
1	1		ANT1		N/A	ANT_IIFA_CC2420_62mil	ANT_IIFA_CC2420_62mil	IIFA_CC2420
2	7		C1 C2 C3 C4 C5 C391 C401		1.0uF	0402	CAP CER 1.0UF 10V X5R 0402	LMK105BJ105KV-F
3	2		C6 C7		12pF	0402		EMK042CG120JC-F
4	2		C47 C48		1.0pF	0402		GRM1555C1H1R0C201D
5	1		C52		2.2pF	0402		GRM1555C1H2R2C201D
6	2	VERIFIED	C62 C66		2.2uF	0402	CAP CER 2.2UF 6.3V 20% X5R 0402	JMK105BJ225MV-F
7	12	VERIFIED	C63 C64 C65 C76 C77 C79 C85 C101 C211 C241 C281 C311		100nF	0402	CAP CER 0.1UF 10V 10% X5R 0402	LMK105BJ104KV-F
8	4		C71 C72 C83 C84		1.8pF	0402		GRM1555C1H1R8C201D
9	2		C221 C231		15pF	0402		GRM1555C1H150JZ01D
10	2		C251 C261		18pF	0402		GRM1555C1H180JZ01D
11	1	VERIFIED	C282		220pF	0402	CAP CER 220PF 50V X7R ±10% 0402	UMK105B7221KV-F
12	4		C402 C403 C404 C405		TBD	0402	Blank capacitor 0402 - PADS only in the layout	N/A
13	2		FB1 FB2		1K ohm @ 100MHz	FB_0402	FERRITE BEAD 1000OHM 0402	BK1005HS102-T
14	1		J5		3 GHz	SMA_THVT_5-1814832-1	CONN SOCKET SMA STR DIE CAST PCB	5-1814832-1
15	2		L3 L4		2.0nH	0402		LQW15AN2N0J00D
16	2		L8 L10		2.7nH	0402		LQW15AN2N7C00D
17	2		P1 P2		SFM-110-02-L-D-A	CON_SMVT_2x10_50_F_SFM_FLIP_CC	SMT-20pin-30Au 50ni-Double Row-Alignment pin	SFM-110-02-S-D-A
18	1		P3		1x8 THVT	HDR_THVT_1x8_100_M	Header 1x8 100 THVT M 530L	HMTSW-108-08-L-S-250
			R29		1.2k	0402		ERJ-2GEJ122X
19	2	VERIFIED	R28		2.2k	0402	RES Thick Film 680 OHM 1/10W 5% 0402	ERJ-2GEJ222X
20	5		R32 R43 R45 R48 R302		0	0402		ERJ-2GE0R00X
21	1		R301		56.2K	0402	RES Thick Film 56.2K OHM 1/10W ±1% 0402	ERJ-2RKF5622X
22	1	DR	U5		SE2431L-R	QFN_24_EP1p70x2p70	IC RF FRONT END MOD 2.4GHZ 24QFN	SE2431L-R
23	1	DR	U7		CC2530F256RHA	PVQFN_RHA40_EP4p50SQ	IC SOC IEEE 802.15.4/ZIG 40-QFN 256K Flash	CC2530F256RHA
24	1		U8		RF SHIELD	SH_BMI-S-209_1p156x728	BOARD SHIELD 1.156X0.728" FRAME	BMI-S-209-F
25	1		U9		RF SHIELD COVER		BOARD SHIELD 1.156X0.728" COVER	BMI-S-209-C
26	1		Y5		32.768kHz	XTAL_130x63x36	CRYSTAL,32.768kHz,12.5pF,SMD,CC7V-T1A SERIES 2P	CC7V-T1A 32.768kHz 12,5pF +/-20ppm
27	1		Y6		32MHz 12pF	XTAL_4_SM_83x67x20		FA-128-32.000M-F10V-W3

IMPORTANT NOTICE FOR TI REFERENCE DESIGNS

Texas Instruments Incorporated ("TI") reference designs are solely intended to assist designers ("Buyers") who are developing systems that incorporate TI semiconductor products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products.

TI reference designs have been created using standard laboratory conditions and engineering practices. **TI has not conducted any testing other than that specifically described in the published documentation for a particular reference design.** TI may make corrections, enhancements, improvements and other changes to its reference designs.

Buyers are authorized to use TI reference designs with the TI component(s) identified in each particular reference design and to modify the reference design in the development of their end products. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER TI INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN, including but not limited to any patent right, copyright, mask work right, or other intellectual property right relating to any combination, machine, or process in which TI components or services are used. Information published by TI regarding third-party products or services does not constitute a license to use such products or services, or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from TI under the patents or other intellectual property of TI.

TI REFERENCE DESIGNS ARE PROVIDED "AS IS". TI MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE REFERENCE DESIGNS OR USE OF THE REFERENCE DESIGNS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. TI DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO TI REFERENCE DESIGNS OR USE THEREOF. TI SHALL NOT BE LIABLE FOR AND SHALL NOT DEFEND OR INDEMNIFY BUYERS AGAINST ANY THIRD PARTY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON A COMBINATION OF COMPONENTS PROVIDED IN A TI REFERENCE DESIGN. IN NO EVENT SHALL TI BE LIABLE FOR ANY ACTUAL, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES, HOWEVER CAUSED, ON ANY THEORY OF LIABILITY AND WHETHER OR NOT TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, ARISING IN ANY WAY OUT OF TI REFERENCE DESIGNS OR BUYER'S USE OF TI REFERENCE DESIGNS.

TI reserves the right to make corrections, enhancements, improvements and other changes to its semiconductor products and services per JESD46, latest issue, and to discontinue any product or service per JESD48, latest issue. Buyers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All semiconductor products are sold subject to TI's terms and conditions of sale supplied at the time of order acknowledgment.

TI warrants performance of its components to the specifications applicable at the time of sale, in accordance with the warranty in TI's terms and conditions of sale of semiconductor products. Testing and other quality control techniques for TI components are used to the extent TI deems necessary to support this warranty. Except where mandated by applicable law, testing of all parameters of each component is not necessarily performed.

TI assumes no liability for applications assistance or the design of Buyers' products. Buyers are responsible for their products and applications using TI components. To minimize the risks associated with Buyers' products and applications, Buyers should provide adequate design and operating safeguards.

Reproduction of significant portions of TI information in TI data books, data sheets or reference designs is permissible only if reproduction is without alteration and is accompanied by all associated warranties, conditions, limitations, and notices. TI is not responsible or liable for such altered documentation. Information of third parties may be subject to additional restrictions.

Buyer acknowledges and agrees that it is solely responsible for compliance with all legal, regulatory and safety-related requirements concerning its products, and any use of TI components in its applications, notwithstanding any applications-related information or support that may be provided by TI. Buyer represents and agrees that it has all the necessary expertise to create and implement safeguards that anticipate dangerous failures, monitor failures and their consequences, lessen the likelihood of dangerous failures and take appropriate remedial actions. Buyer will fully indemnify TI and its representatives against any damages arising out of the use of any TI components in Buyer's safety-critical applications.

In some cases, TI components may be promoted specifically to facilitate safety-related applications. With such components, TI's goal is to help enable customers to design and create their own end-product solutions that meet applicable functional safety standards and requirements. Nonetheless, such components are subject to these terms.

No TI components are authorized for use in FDA Class III (or similar life-critical medical equipment) unless authorized officers of the parties have executed an agreement specifically governing such use.

Only those TI components that TI has specifically designated as military grade or "enhanced plastic" are designed and intended for use in military/aerospace applications or environments. Buyer acknowledges and agrees that any military or aerospace use of TI components that have **not** been so designated is solely at Buyer's risk, and Buyer is solely responsible for compliance with all legal and regulatory requirements in connection with such use.

TI has specifically designated certain components as meeting ISO/TS16949 requirements, mainly for automotive use. In any case of use of non-designated products, TI will not be responsible for any failure to meet ISO/TS16949.