

TIDA-010024 Bill of Materials



Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
A1	0	DNM	DNM	DNM	Antenna, PCB Trace	
C1 C9 C41 C88 C89 C132 C222	7	12pF	GRM1555C1H120JA01D	MURATA	Cap, Cer, C0G/NP0, 12pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD	0402
C2 C3 C4 C7 C50 C110 C135 C136 C137 C138 C151	11	10nF	GRM155R71E103KA01D	MURATA	Cap, Cer, X7R, 10nF, 25V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD	0402
C5 C40 C42 C44 C71 C92 C93 C94 C231	9	1uF	GRM155R61C105KA12D	MURATA	Cap, Cer, X5R, 1uF, 16V, -10%/+10%, -55DEGC/+85DEGC, 0402, SMD	0402
C6 C78 C79 C80 C83 C84 C87	7	100nF	GRM033R61A104KE84D	MURATA	Cap, Cer, X5R, 100nF, 10V, -10%/+10%, -55DEGC/+85DEGC, 0201, SMD	0201
C8 C30 C38 C39 C43 C46 C52 C53 C54 C55 C56 C57 C63 C64 C68 C69 C75 C82 C90 C96 C97 C99 C100 C103 C105 C108 C118 C119 C121 C124 C128 C131 C140 C144 C145 C146 C147 C150 C221 C342 C351 C441 C451 C481	44	0.1uF	GRM155R71E104KE14D	MURATA	Cap, Cer, X7R, 0.1uF, 25V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD	0402
C11 C21	2	3.6pF	GRM1555C1H3R6CA01D	MURATA	Cap, Cer, C0G/NP0, 3.6pF, 50V, -0.25pF/+0.25pF, -55DEGC/+125DEGC, 0402, SMD	0402

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C31 C36 C67	3	100pF	GRM1555C1H101JA01D	MURATA	Cap, Cer, C0G/NP0, 100pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD	0402
C33	1	2.7pF	GRM1555C1H2R7CA01D	MURATA	Cap, Cer, C0G/NP0, 2.7pF, 50V, -0.25pF/+0.25pF, -55DEGC/+125DEGC, 0402, SMD	0402
C34	1	6.2pF	GRM1555C1H6R2CA01D	MURATA	Cap, Cer, C0G/NP0, 6.2pF, 50V, -0.25pF/+0.25pF, -55DEGC/+125DEGC, 0402, SMD	0402
C35	1	3pF	GRM1555C1H3R0CA01D	MURATA	Cap, Cer, C0G/NP0, 3pF, 50V, -0.25pF/+0.25pF, -55DEGC/+125DEGC, 0402, SMD	0402
C37	0	DNM	DNM	DNM	Cap	DNM
C45 C48 C49 C74 C104 C106 C122 C123 C141 C142 C143	11	2.2uF	GRM155R61E225KE11D	MURATA	Cap, Cer, X5R, 2.2uF, 25V, -10%/+10%, -55DEGC/+85DEGC, 0402, SMD	0402
C47 C51	2	15pF	GRM1555C1H150JA01D	MURATA	Cap, Cer, C0G/NP0, 15pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD	0402
C60 C61 C62 Z61	0	DNM	DNM	DNM	Cap	DNM
C65 C66	2	1uF	GRM155R61E105KA12D	MURATA	Cap, Cer, X5R, 1uF, 25V, -10%/+10%, -55DEGC/+85DEGC, 0402, SMD	0402
C70 C72 C73 C98 C101 C102	6	10uF	CL21B106KOQNNNE	SAMSUNG ELECTRO- MECHANICS	Cap, Cer, X7R, 10uF, 16V, -10%/+10%, -55DEGC/+125DEGC, 0805, SMD	0805
C76	1	47uF	GRM21BR61A476ME15L	MURATA	Cap, Cer, X5R, 47uF, 10V, -20%/+20%, -55DEGC/+85DEGC, 0805, SMD	0805
C77 C109	2	4.7uF	C2012X7R1E475K125AB	TDK	Cap, Cer, X7R, 4.7uF, 25V, -10%/+10%, -55DEGC/+125DEGC, 0805, SMD	0805
C85 C86 C107	3	4.7uF	GRM155R60J475ME87D	MURATA	Cap, Cer, X5R, 4.7uF, 6.3V, -20%/+20%, -55DEGC/+85DEGC, 0402, SMD	0402
C111	1	4.7nF	GRM155R71E472KA01D	MURATA	Cap, Cer, X7R, 4.7nF, 25V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD	0402
C112	1	220nF	GRM155R71C224KA12D	MURATA	Cap, Cer, X7R, 220nF, 16V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD	0402
C113	1	7.5pF	GRM1555C1H7R5CA01D	MURATA	Cap, Cer, C0G/NP0, 7.5pF, 50V, -0.25pF/+0.25pF, -55DEGC/+125DEGC, 0402, SMD	0402
C114 C115 C116 C117 C127 C130 C139 C232	8	10uF	C2012X5R1V106K085AC	TDK	Cap, Cer, X5R, 10uF, 35V, -10%/+10%, -55DEGC/+85DEGC, 0805, SMD	0805
C120	1	6.8pF	GRM1555C1H6R8CA01D	MURATA	Cap, Cer, C0G/NP0, 6.8pF, 50V, -0.25pF/+0.25pF, -55DEGC/+125DEGC, 0402, SMD	0402
C125 C331 C341	3	22uF	GRM188R60J226MEA0D	MURATA	Cap, Cer, X5R, 22uF, 6.3V, -20%/+20%, -55DEGC/+85DEGC, 0603, SMD	0603

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C126	1	22pF	GRM1555C1E220JA01D	MURATA	Cap, Cer, C0G/NP0, 22pF, 25V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD	0402
C149	1	3.3uF	GRM188R61A335KE15D	MURATA	Cap, Cer, X5R, 3.3uF, 10V, -10%/+10%, -55DEGC/+85DEGC, 0603, SMD	0603
CR1 CR5	2	LPL296-J	LP L296-J2L2-25	OSRAM	OPTO, LED, GREEN COLOR, 562nm, 0.02A, 0.08W, 0603, SMD	0603
CR2 CR4	2	LS L296-	LS L296-P2Q2-1	OSRAM	OPTO, LED, SUPER RED COLOR, 630nm, 1.8V TO 2.3V, 0.06A, 0603, SMD	0603
CR6	1	TPD4E00	TPD4E004DRYR	TEXAS INSTRUMENTS	DIODE, PROTECTION, ESD ARRAY, 4 CHANNEL, 6V TO 8V, -40DEGC/+85DEGC, SON6, SMD	SON6
CR7 CR8	2	TPD6E00	TPD6E004RSER	TEXAS INSTRUMENTS	DIODE, PROTECTION, ESD ARRAY - 6 CHANNELS, 7V, -40DEGC/+85DEGC, QFN8, SMD	QFN8
CR9 CR10 CR11	3	MBRM12	MBRM120LT3G	ON SEMICONDUCTOR	DIODE, SCHOTTKY POWER RECTIFIER, 20V, 1A, -55DEGC/+125DEGC, SMD	
FIDU1 FIDU2 FIDU3 FIDU4 FIDU5 FIDU6	0	DNM			Fiducial Pads	DNM
FL1 FL2	2	BLM18HE	BLM18HE152SN1D	MURATA	FILTER, EMI, 1500@100MHz, -55DEGC/+125DEGC, 0603, SMD	0603
J1 J2	2	SSQ-110	SSQ-110-23-L-D	SAMTEC	CONNECTOR, HEADER, FEMALE, STRAIGHT, 2 ROWS, 20 Pins, 2.54mm, PTH	
J6	1	105164-0	105164-0001	MOLEX	CONNECTOR, USB, FEMALE, RIGHT ANGLE, 1 ROW, 5 PINS, PITCH 0.65mm, SMD	
J7	1	SMA-10V	SMA-10V21-TGG	HUS-TSAN	CONNECTOR, COAX, RF, FEMALE, STRAIGHT, 1 PIN, SMD	
L11 L32	2	7.5nH	LQG15HS7N5J02D	MURATA	INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 7.5nH, -5%/+5%, 0.3A, -55DEGC/+125DEGC, 0402, SMD	0402
L12	1	27nH	LQG15HS27NJ02D	MURATA	INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 27nH, -5%/+5%, 0.3A, -55DEGC/+125DEGC, 0402, SMD	0402
L22 L23 L24	3	BLM21PG	BLM21PG221SN1D	MURATA	FILTER, EMI, FERRITE BEAD, 220@100MHz, -25%/+25%, -55DEGC/+125DEGC, 0805, SMD	0805
L25 L26	2	4.7uH	7447789004	WURTH	INDUCTOR, POWER, FERRITE CORE, SHIELDED, 4.7uH, -20%/+20%, 3.9A, -40DEGC/+125DEGC, SMD	
L33 L34	2	6.8nH	LQG15HS6N8J02D	MURATA	INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 6.8nH, -5%/+5%, 0.3A, -55DEGC/+125DEGC, 0402, SMD	0402
L331	1	6.8uH	MLZ2012N6R8LT000	TDK	INDUCTOR, STANDARD, CHIP, FERRITE CORE, SHIELDED, 6.8uH, -20%/+20%, 1.1A, -55DEGC/+125DEGC, 0805, SMD	0805
LBL1	0	DNM			Label, Pb Free	DNM
LBL2	0	DNM			Label, TI	DNM
LBL5	0	DNM			Label, CE	DNM
LBL4	0	DNM			Label, FCC	DNM
LBL6	0	DNM			Label, No DustBin	DNM

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
M1 M2 M3 M4 M5 M6 M7 M8 M9 M10 M11 M12 M13 M14	14	SNT-100	SNT-100-BK-G	SAMTEC	MECHANIC, SHUNT, CURRENT RATING 4.3A PER PIN, 2.54 X 5.08 X 6.1mm, BLACK	
MH1 MH2 MH3 MH4	4	RLCBSC	RLCBSC-10-01	ESSENTRA	MECHANIC, REVERSE LOCKING CIRCUIT BOARD SUPPORT, RLCBSC-10-01	
MH5	0	DNM			PCB Hole, Non-Component	DNM
P1 P2 P10	3	BB02-HC	BB02-HC031-KB1-603000	GRADCONN	CONNECTOR, HEADER, MALE, STRAIGHT, 1 ROW, 3 PINS, PITCH 2.54mm, PTH	
P4	1	BB02-HJ	BB02-HJ221-KB1-603000	GRADCONN	CONNECTOR, HEADER, MALE, STRAIGHT, 2 ROWS, 22 PINS, PITCH 2.54mm, PTH	
P5 P7	2	FTSH-10	FTSH-105-01-F-DV-K	SAMTEC	CONNECTOR, HEADER, MALE, STRAIGHT, 10 PINS, 2 ROWS, PITCH 1.27mm, SMD	
P6	1	BB02-HJ	BB02-HJ041-KB1-603000	GRADCONN	CONNECTOR, HEADER, MALE, STRAIGHT, 2 ROWS, 4 PINS, PITCH 2.54mm, PTH	
P8	0	DNM			Conn, Non-Component, 10 Pin, Dual Row	DNM
Q1	1	NX2301P	NX2301P,215	NXP	TRANSISTOR, MOSFET, P-CHANNEL, -20V, -2A, 0.4W, SOT23-3, SMD	SOT23-3
Q2	1	Si2323DS	Si2323DS-T1-E3	VISHAY	TRANSISTOR, MOSFET, P-CHANNEL, -20V, -3.7A, 0.75W, SOT23-3, SMD	SOT23-3
R2 R3	0	DNM	DNM	DNM	Res	DNM
R11	1	2.2k	CRCW04022K20JNED	VISHAY	Res, THICK FILM, 2.2k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R14 R25 R72	3	220	CRCW0402220RJNED	VISHAY	Res, THICK FILM, 220, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R15 R23	2	180	CRCW0402180RJNED	VISHAY	Res, THICK FILM, 180, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R17 R78 R100 R102	4	10k	CRCW040210K0JNED	VISHAY	Res, THICK FILM, 10k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R18	1	4.7k	CRCW04024K70JNED	VISHAY	Res, THICK FILM, 4.7k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R20 R55 R56 R57 R96	5	100	CRCW0402100RJNED	VISHAY	Res, THICK FILM, 100, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R21 R59 R60 R74 R86	0	DNM	DNM	DNM	Res	DNM
R27 R29 R30 R39	4	1k	CRCW04021K00JNED	VISHAY	Res, THICK FILM, 1k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R28	1	4.87k	CRCW04024K87FKED	VISHAY	Res, THICK FILM, 4.87k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R31	1	51	CRCW040251R0JNED	VISHAY	Res, THICK FILM, 51, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R32	1	33k	CRCW040233K0FKED	VISHAY	Res, THICK FILM, 33k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R33	1	51k	CRCW040251K0JNED	VISHAY	Res, THICK FILM, 51k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R34	1	30k	CRCW040230K0JNED	VISHAY	Res, THICK FILM, 30k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R46 R47	0	DNM	DNM	DNM	Res	DNM
R48 R49 R51 R133	4	0	CRCW06030000Z0EC	VISHAY	Res, THICK FILM, 0, 0R/+0.02R, 0.1W, 75V, -55DEGC/+155DEGC, 0603, SMD	0603
R52	0	DNM	DNM	DNM	Res	DNM
R58	1	3.3k	CRCW04023K30JNED	VISHAY	Res, THICK FILM, 3.3k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R61 R62 R63 R65 R110	5	100k	WCR0402-100KFA	TT ELECTRONIC S	Res, THICK FILM, 100k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R69 R70 R73 R81	4	0	CRCW04020000Z0ED	VISHAY	Res, THICK FILM, 0, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R71	1	2.61k	CRCW04022K61FKED	VISHAY	Res, THICK FILM, 2.61k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R76	1	1	CRCW12181R00FNEK	VISHAY	Res, THICK FILM, 1, -1%/+1%, 1W, 200V, -55DEGC/+155DEGC, 1218, SMD	1218
R77 R80	2	0.22	RCWE0402R220FKEA	VISHAY	Res, THICK FILM, 0.22, -1%/+1%, 0.125W, -55DEGC/+155DEGC, 0402, SMD	0402
R79	1	1k	CRCW04021K00FKED	VISHAY	Res, THICK FILM, 1k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R82 R83 R115	3	10k	CRCW020110K0JNED	VISHAY	Res, THICK FILM, 10k, -5%/+5%, 0.05W, 30V, -55DEGC/+155DEGC, 0201, SMD	0201
R84	1	12k	CRCW020112K0FKED	VISHAY	Res, THICK FILM, 12k, -1%/+1%, 0.05W, 30V, -55DEGC/+155DEGC, 0201, SMD	0201
R85	1	510k	CRCW0402510KJNED	VISHAY	Res, THICK FILM, 510k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R87 R97 R98	3	1Meg	CRCW04021M00FKED	VISHAY	Res, THICK FILM, 1M, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R92	1	60.4k	CRCW040260K4FKED	VISHAY	Res, THICK FILM, 60.4k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R93 R94 R106 R351	4	100k	CRCW0402100KJNED	VISHAY	Res, THICK FILM, 100k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402
R99	1	86.6k	CRCW040286K6FKED	VISHAY	Res, THICK FILM, 86.6k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD	0402

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