



Title TIE 2023

Size A3	Number	Revision
Date: 11/07/2025	Sheet 1 of 1	
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Comment	Description	Designator	Footprint	LibRef	Quantity
100nF	Multilayer Ceramic Capacitors MLCC - SMD/SMT 25V 0.1uf X7R 0402 10%	C1, C4, C9, C10, C11, C13, C14	CAP_0402	MBAST105SB7104KFNA01	7
820pF	Multilayer Ceramic Capacitors MLCC - SMD/SMT 820 pF 25 VDC 5% 0201 COG (NP0) AEC-Q200	C2	CAP_0201	GRT0335C1E821JA02D	1
12pF	Multilayer Ceramic Capacitors MLCC - SMD/SMT KGM05ACCG1C120JH NEW GLOBAL PN 16V 12pF C.A.581-120pF C.G.581-120pF	C3, C15, C22, C23	CAP_0402	0402Y1A120JAT2A	4
1uF	Multilayer Ceramic Capacitors MLCC - SMD/SMT 20V 1uF 0402 X7T +/-20% AEC-Q200	C5	CAP_0402	MAASL105CD7105MFC001	1
4.7uF	Multilayer Ceramic Capacitors MLCC - SMD/SMT 4.7V 4.7uF X5R 0603 10%	C6, C7, C8	CAP_0603	KGM15BR50J475KT	3
10uF	Multilayer Ceramic Capacitors MLCC - SMD/SMT 4.7V 10uF X5R 0805 10%	C12, C24	CAP_0805	KGM21AR71C106MU	2
100pF	Multilayer Ceramic Capacitors MLCC - SMD/SMT 0201/0402 100pF COG 50Vdc +/-5%	C16, C26	CAP_0201	CL03C101JB3NNNC	2
0.7pF	Multilayer Ceramic Capacitors MLCC - SMD/SMT 25V .7pF COG 0402 1 pF Tol	C18	CAP_0402	04023U0R7BAT2A	1
0.5pF	Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 0.5pF 0402 0402 0.5pF Tol	C19	CAP_0402	MBASU105SKCR05BFNA01	1
100pF	Multilayer Ceramic Capacitors MLCC - SMD/SMT 500V 0.0001uF COG 0402 10% AEC-Q200	C20, C21	CAP_0402	CD402C101KCGACAUT0	2
4.7nF	Multilayer Ceramic Capacitors MLCC - SMD/SMT KGM03A51A472KH NEW GLOBAL PN 10V 4700pF A.581-4700pF G.581-4700pF KGM03A51TA472KH	C25	CAP_0201	0201ZD472KAT2A	1
22uF	Multilayer Ceramic Capacitors MLCC - SMD/SMT 4.7V 22uF X5R 0805 2.0%	C27	CAP_0805	KGM21AR50J226MU	1
10pF	Multilayer Ceramic Capacitors MLCC - SMD/SMT KGM03ACG1E100JH NEW GLOBAL PN 25V 10pF C.A.581-100pF C.G.581-100pF	C28	CAP_0201	02013A100JAT2A	1
U-FL-LP-040	U-FL-Small Surface Mount Vertical Connectors	J1, J2	U-FL-R-SMT-1	U-FL-LP-040	2
10uH	Power Inductors - SMD 0603 10uh +/-20%	L1	FB_1206	7447918	1
10uH	Power Inductors - SMD 0603 10uh +/-20%	L2	FB_0603	MLZ1608E100MT	1
15nH	RF Inductors - SMD 15mH RDC=0.32Ohms 600mA	L3	FB_0603	BSCH0016080815N00	1
4.7nH	Power Inductors - SMD 3655 0603 4N7 +/-0.3mH T&R	L4	FB_0603	36550603S4N7T	1
AP11608SRCPRV	Surface Mount LED - SMD RED WATER CLEAR	LED1, LED2, LED3	LED_0402-RED	APT11608SRCPRV	3
0R	Thin Film Resistors - SMD ZERO OHM JUMPER	R1, R2, R3, R7, R9	RES_0402	PZHT0402-0R00GPA	5
100K	Thick Film Resistors - SMD 1/20watt 100Kohms 1% 100ppm	R4	RES_0201	CRCW0201100KFED	1
3.3K	Thick Film Resistors - SMD 0201 5% 3.3Kohm Anti-Sulfur AEC-Q200	R5	RES_0201	ERJ-U01J332C	1
6.8K	Thick Film Resistors - SMD 0201 0.05W 1% 6.8Kohm AEC-Q200	R6	RES_0201	ERJ-1GJF6801C	1
49.9K	Thick Film Resistors - SMD 0201 49.9Kohm 1% HalogenFree AEC-Q200	R8	RES_0201	ERJ-1GNF4992C	1
TIE2023	Bluetooth, NFC and ANT + IC	U1	TIE23_IC	TIE2023	1
TPS62810-Q1	Switching Voltage Regulators Analog 2.75-V to 4-V 4.4-A step-down	U2	VOFN-9	TPS62810-Q1	1
QSPI Memory	NOR Flash Serial NOR 1.65V-3.6V 64Mbit x4 I/O WLCSPI-22	U3	WLCSPI-22	MX25R6435F	1
32MHz	A 2.2 x 1.6mm SMD crystal in a ceramic package	Y1	XRCGB-2X1.6	XRCGB30	1
32KHz	A 3.2 x 1.5mm SMD crystal in a ceramic package with a seam sealed metal lid, hermetically sealed	Y2	CFPX-3.2X1.5	CFPX-217	1

