

Part	X	X (Mirrored) Y	Angle	Angle (Mirrored)	Package	Value	Manufacturer	Manufacturer Part No	Farnell Part No	Mouser Part No	Description
Dimensions	43.00	43.00									
Fiducials - for solder paste mask alignment:											
FD1	20.83	4.19	0								Fiducial 1mm
FD2	1.02	39.12	0								Fiducial 1mm
Top Layer Surface Mount Components:											
C1	39.12	25.91	315		0805	10uF	Walsin	0805F106Z100CT	2496998		MultiLayer Ceramic Capacitor; 10uF; 10V; 0805
C2	11.81	37.97	0		0805	10nF	Walsin	0805B103K500CT	2496939		MultiLayer Ceramic Capacitor; 10nF; 50V; 0805; X7R
C3	11.94	33.66	0		0805	10uF	Walsin	0805F106Z100CT	2496998		MultiLayer Ceramic Capacitor; 10uF; 10V; 0805
C4	8.13	31.24	90		0805	10nF	Walsin	0805B103K500CT	2496939		MultiLayer Ceramic Capacitor; 10nF; 50V; 0805; X7R
C5	12.07	35.81	0		0805	10uF	Walsin	0805F106Z100CT	2496998		MultiLayer Ceramic Capacitor; 10uF; 10V; 0805
C7	3.43	37.72	180		0805	10uF	Walsin	0805F106Z100CT	2496998		MultiLayer Ceramic Capacitor; 10uF; 10V; 0805
C8	15.88	31.5	270		0805	10uF	Walsin	0805F106Z100CT	2496998		MultiLayer Ceramic Capacitor; 10uF; 10V; 0805
C9	15.75	34.29	180		0603	10n	Walsin	0201B103K100CT	2496756		MultiLayer Ceramic Capacitor; 10nF; 10V; 0603; X7R
C10	18.92	25.91	90		0603	12pF	Walsin	0603N120J500CT	2496884		MultiLayer Ceramic Capacitor; 12pF; 50V; 0603
C11	16.51	28.07	180		0603	1uF	Walsin	0603X105K100CT	2496916		MultiLayer Ceramic Capacitor; 1uF; 10V; 0603; X5R
C12	25.65	25.02	0		0603	12pF	Walsin	0603N120J500CT	2496884		MultiLayer Ceramic Capacitor; 12pF; 50V; 0603
C13	18.03	32	90		0603	1uF	Walsin	0603X105K100CT	2496916		MultiLayer Ceramic Capacitor; 1uF; 10V; 0603; X5R
C14	18.92	10.41	270		0805	10uF	Walsin	0805F106Z100CT	2496998		MultiLayer Ceramic Capacitor; 10uF; 10V; 0805
C15	25.53	12.32	270		0603	10n	Walsin	0201B103K100CT	2496756		MultiLayer Ceramic Capacitor; 10nF; 10V; 0603; X7R
C16	1.52	9.65	90		0603	100nF	Murata	GRM188R71H104JA93D	2688523		MultiLayer Ceramic Capacitor; 0.1uF; 50V; 0603; X7R
C17	28.83	15.11	0		0805	4u7	TDK	C2012X5R1E475K125AB	2309036		MultiLayer Ceramic Capacitor; 4.7uF; 25V; 0805; X5R
C18	27.56	22.99	0		0603	10n	Walsin	0201B103K100CT	2496756		MultiLayer Ceramic Capacitor; 10nF; 10V; 0603; X7R
C19	15.49	16.89	270		0603	100nF	Murata	GRM188R71H104JA93D	2688523		MultiLayer Ceramic Capacitor; 0.1uF; 50V; 0603; X7R
C20	3.94	1.27	0		0603	22nF	Walsin	0603B223K250CT	2496846		MultiLayer Ceramic Capacitor; 22nF; 25V; 0603; X7R
C21	12.83	21.97	180		0603	12pF	Walsin	0603N120J500CT	2496884		MultiLayer Ceramic Capacitor; 12pF; 50V; 0603
C22	12.83	27.05	180		0603	12pF	Walsin	0603N120J500CT	2496884		MultiLayer Ceramic Capacitor; 12pF; 50V; 0603
C23	9.53	6.48	90		0603	10nF	Walsin	0603B103K101CT	2496825		MultiLayer Ceramic Capacitor; 10nF; 100V; 0603; X7R
C24	13.34	6.48	90		0603	10nF	Walsin	0603B103K101CT	2496825		MultiLayer Ceramic Capacitor; 10nF; 100V; 0603; X7R
C25	17.14	2.67	90		0603	10nF	Walsin	0603B103K101CT	2496825		MultiLayer Ceramic Capacitor; 10nF; 100V; 0603; X7R
D1	5.97	28.45	180		SOD-123	MBR120	ON SEMICONDUCTOR	MBR120VLSFT1G	1431044		Schottky Rectifier; 20V; 1A; SOD-123
D2	1.27	32.13	0		2.0x1.25	RED	Würth Elektronik	150080RS75000	2322077	710-150080RS75000	LED; Red; 20mA; 2V; 2.0x1.25mm
IC1	28.07	40.13	270		SOT23-5	74AHCT1G125DBV	Texas Instruments	SN74AHCT1G125DBVR	1105927		Buffer / Line Driver; Single Gate
IC5	24.51	31.5	90		TQFP48-7X7	SAMD21G18A-AFT	Atmel / Microchip	SAMD21G18A-AFT		556-ATSAMD21G18A-AFT	Ethernet ICs 3in1 Enet Controller TCP/IP +MAC+PHY
IC6	21.59	18.8	90		TQFP48-7X7	W5500	WIZnet	W5500		950-W5500	Board-To-Board Connector, 1.27 mm, 16 Contacts, 2 Rows
J8	36.2	38.1	180		FLE-108-01-G-DV	FLE-108-01-G-DV	Samtec	FLE-108-01-G-DV			Ferrite Bead; 0805; 30 Ohms at 100MHz
L1	27.3	12.07	90		0805	MH2029-300Y	Bourns	MH2029-300Y	2859362	652-MH2029-300Y	SMD Chip Resistor, 0 ohm, 75 V, 0603, 100 mW
R2	3.68	34.67	180		0603	0R	Multicomp	MCMR06X000PTL	2073345		SMD Chip Resistor, 0 ohm, 75 V, 0603, 100 mW
R3	37.47	32.26	0		0603	0R	Multicomp	MCMR06X000PTL	2073345		SMD Chip Resistor, 0 ohm, 75 V, 0603, 100 mW
R4	21.34	5.84	180		0603	0R	Multicomp	MCMR06X000PTL	2073345		SMD Chip Resistor, 0 ohm, 75 V, 0603, 100 mW
R5	1.27	28.7	90		0603	2.2K	Multicomp	MCWR06X201FTL	2447230		Chip Resistor; Thick Film; 2.2k; 50V; 0603; 100mW
R6	21.97	12.7	0		0603	12K4	Vishay	CRCW060312K4FKEA	1652836		Chip Resistor; Thick Film; 12.4k; 75V; 0603; 100mW
R7	13.59	16.89	270		0603	10K	Multicomp	MCWR06X1002FTL	2447230		Chip Resistor; Thick Film; 10k; 50V; 0603; 100mW
R8	11.68	16.89	270		0603	10K	Multicomp	MCWR06X1002FTL	2447230		Chip Resistor; Thick Film; 10k; 50V; 0603; 100mW
R9	9.78	16.89	270		0603	10K	Multicomp	MCWR06X1002FTL	2447230		Chip Resistor; Thick Film; 10k; 50V; 0603; 100mW
R10	7.87	16.89	270		0603	10K	Multicomp	MCWR06X1002FTL	2447230		Chip Resistor; Thick Film; 10k; 50V; 0603; 100mW
R11	5.08	16.38	180		0603	10K	Multicomp	MCWR06X1002FTL	2447230		Chip Resistor; Thick Film; 10k; 50V; 0603; 100mW
R12	28.96	17.27	180		0603	10K	Multicomp	MCWR06X1002FTL	2447230		Chip Resistor; Thick Film; 10k; 50V; 0603; 100mW
R13	10.79	25.4	0		0603	0R	Multicomp	MCMR06X000PTL	2073345		SMD Chip Resistor, 0 ohm, 75 V, 0603, 100 mW
R14	10.79	23.75	180		0603	0R	Multicomp	MCMR06X000PTL	2073345		SMD Chip Resistor, 0 ohm, 75 V, 0603, 100 mW
R15	13.72	24.51	270		0603	1M	Multicomp	MCWR06X1004FTL	2447285		SMD Chip Resistor, 1Mohm, 50 V, 0603, 100 mW
R16	7.49	11.43	270		0603	1K	Multicomp	MCWR06X1001FTL	2447272		Chip Resistor; Thick Film; 1k; 50V; 0603; 100mW
R17	12.57	11.43	270		0603	1K	Multicomp	MCWR06X1001FTL	2447272		Chip Resistor; Thick Film; 1k; 50V; 0603; 100mW
R18	5.71	6.48	90		0603	10R	Vishay	CRCW060310R0JNEA	2616744		Chip Resistor; Thick Film; 10 ohm; 75V; 0603; 100mW
R19	2.92	3.81	180		0603	49R9	Multicomp	MCWR06X49R9FTL	2447381		Chip Resistor; Thick Film; 49.9 ohm; 50V; 0603; 100mW
R20	7.62	6.48	90		0603	49R9	Multicomp	MCWR06X49R9FTL	2447381		Chip Resistor; Thick Film; 49.9 ohm; 50V; 0603; 100mW
R21	15.24	6.48	90		0603	49R9	Multicomp	MCWR06X49R9FTL	2447381		Chip Resistor; Thick Film; 49.9 ohm; 50V; 0603; 100mW
R22	11.43	6.48	90		0603	49R9	Multicomp	MCWR06X49R9FTL	2447381		Chip Resistor; Thick Film; 49.9 ohm; 50V; 0603; 100mW
R23	19.18	3.3	270		0603	0R	Multicomp	MCMR06X000PTL	2073345		SMD Chip Resistor, 0 ohm, 75 V, 0603, 100 mW
R25	1.52	18.54	90		0603	0R	Multicomp	MCMR06X000PTL	2073345		SMD Chip Resistor, 0 ohm, 75 V, 0603, 100 mW
R27	19.18	36.83	270								DNP
R28	17.14	36.83	270								DNP
R29	22.48	37.72	180		0603	1K	Multicomp	MCWR06X1001FTL	2447272		Chip Resistor; Thick Film; 1k; 50V; 0603; 100mW
SW1	37.46	24	315		4.6x2.8	Tactile Switch	Multicomp	MCPTG23K-V	1605470		Tactile Switch; 4.6x2.8mm; 50mA; 12V
U1	12.07	30.61	270		SOT23-5	SPX3819-3.3	Exar	SPX3819MS-L-3-3/TR		701-SPX3819MS-L-33TR	LDO Voltage Regulator; 500mA; SOT-23-5
U2	30.1	26.04	270		SOT23-3	MCP111T-240E/JT	Microchip	MCP111T-240E/JT	1627192		Reset Supervisor; SOT23-3; 2.40V; Open Drain; Active Low
X1	21.59	25.4	180		3.2x1.5	CRYSTAL3.2X2.5	Epson	EC5-250-12-33-AGMT	1278036		Crystal; 32.768kHz; 12.5pF; 3.2 x 1.5mm
X2	16.26	24.51	90		CRYSTAL3.2X2.5	FTX25.000M125M3S	ECS	EC5-250-12-33-AGMT		520-250-12-33-AGMT	Crystals 25MHz 12pF 25ppm
Z1	2.54	22.1	180		CT/CN0603	CG0603MLC-05E	Bourns	CG0603MLC-05E	1838966	652-CG0603MLC-05E	ESD Suppressor; 0603; 5 Volts
Z2	7.49	22.1	0		CT/CN0603	CG0603MLC-05E	Bourns	CG0603MLC-05E	1838966	652-CG0603MLC-05E	ESD Suppressor; 0603; 5 Volts
Bottom Layer Surface Mount Components:											
R1	37.08	23.62	45		0805	50R					Leave unpopulated
Non-Surface Mount Components:											
J5					BU-SMA-V	IMS		42-2510.009		RS: 112-3794	Straight 50Q Through Hole SMA Connector
J6					KUSBVX-BS1N	Kycon		KUSBVX-BS1N-B		806-KUSBVX-BS1N-B	USB B-type Receptacle Vertical, 4 Position, Through Hole
J7					VSIMJLV-88-FF-GY	Valcon		VSIMJLV-88-FF-GY		Toby Electronics	Valcon VSIMJLV-88-FF-GY RJ45 Vertical with 10/100Mbps Magnetics