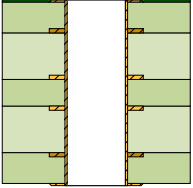


Transmission Line Structure Table

Impedance Id	Transmission Line	Target Impedance	Calculated Impedance	Trace layer	Wide Trace Width	Narrow Trace Width	Gap	Reference layers	Substack	Clearance	Target Tolerance
1	Coated Microstrip	50	49.98	Top	0.41mm	0.41mm		GND-1	Board Layer Stack	0.13mm	10%
2	Edge-Coupled Coated Microstrip	90	90.03	Top	0.27mm	0.27mm	0.13mm	GND-1	Board Layer Stack	0.13mm	10%
3	Edge-Coupled Coated Microstrip	120	120.05	Top	0.10mm	0.10mm	0.13mm	GND-1	Board Layer Stack	0.13mm	10%
4	Embedded Microstrip	50	50.02	Layer 1	0.48mm	0.48mm		GND-1	Board Layer Stack	0.13mm	10%
5	Edge-Coupled Offset Stripline	90	90.03	Layer 1	0.11mm	0.11mm	0.13mm	GND-1,Layer 2	Board Layer Stack	0.13mm	10%
6	Edge-Coupled Offset Stripline	120	119.99	Layer 1	0.03mm	0.03mm	0.13mm	GND-1,Layer 2	Board Layer Stack	0.13mm	10%
7	Embedded Microstrip	50	50.02	Layer 2	0.48mm	0.48mm		GND-2	Board Layer Stack	0.13mm	10%
8	Edge-Coupled Offset Stripline	90	90.03	Layer 2	0.11mm	0.11mm	0.13mm	Layer 1,GND-2	Board Layer Stack	0.13mm	10%
9	Edge-Coupled Offset Stripline	120	119.99	Layer 2	0.03mm	0.03mm	0.13mm	Layer 1,GND-2	Board Layer Stack	0.13mm	10%
10	Coated Microstrip	50	49.98	Bottom	0.41mm	0.41mm		GND-2	Board Layer Stack	0.13mm	10%
11	Edge-Coupled Coated Microstrip	90	90.03	Bottom	0.27mm	0.27mm	0.13mm	GND-2	Board Layer Stack	0.13mm	10%
12	Edge-Coupled Coated Microstrip	120	120.05	Bottom	0.10mm	0.10mm	0.13mm	GND-2	Board Layer Stack	0.13mm	10%

Via Type Type 1A (Scale 16:1)



Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
⊙	397	0.20mm	Plated	
□	323	0.30mm	Plated	
✧	2	0.65mm	Non-Plated	
○	5	0.90mm	Non-Plated	
▽	104	1.00mm	Plated	
◇	4	1.10mm	Non-Plated	
⊕	2	1.40mm	Plated	
⊗	4	1.60mm	Non-Plated	
⊗	2	1.70mm	Plated	
⊞	4	3.20mm	Plated	
847 Total				

Layer Stack Legend

Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0.03mm	SM-001	Solder Mask	GTS
CF-003	Top	0.02mm		Signal	GTL
Prepreg		0.22mm	PP-008	Dielectric	
CF-004	GND-1	0.04mm		Internal Plane	GP1
Core		0.35mm	Core-009	Dielectric	
CF-004	Layer 1	0.04mm		Signal	G1
Prepreg		0.22mm	PP-008	Dielectric	
CF-004	Layer 2	0.04mm		Signal	G2
Core		0.35mm	Core-009	Dielectric	
CF-004	GND-2	0.04mm		Internal Plane	GP2
Prepreg		0.22mm	PP-008	Dielectric	
CF-003	Bottom	0.02mm		Signal	GBL
Surface Material	Board Layer Stack Bottom Solder	0.03mm	SM-001	Solder Mask	GBS
	Board Layer Stack Bottom Overlay			Legend	GBO
Total thickness: 1.59mm					

Bill Of Materials

Line #	Designator	Quantity	manufacturer	Operating Temperature	Package / Case	Part Number	Tolerance	Value	price	Supplier 1
	ANT500	1								
	C200, C201	2	Murata Electronics	-55°C ~ 125°C	0201 (0603 Metric)	GRM0335C1E221JA01D	±5%	220 pF	0.01	DigiKey
	C202	1	Murata Electronics	-55°C ~ 85°C	0805 (2012 Metric)	GRM21BR61A476ME15K	±20%	47 µF	0.13	DigiKey
	C203, C301, C303, C403, C406, C708	6	Murata Electronics	-55°C ~ 125°C	0402 (1005 Metric)	GRT155C71A105KE13D	±10%	1 µF	0.04	DigiKey
	C204, C205, C206, C207, C208, C209, C210, C211, C212, C300, C302, C400, C404, C407, C408, C409, C410, C411, C501, C502, C603, C606, C611, C613, C614, C704, C705, C706, C707, C709, C710, C800, C801, C802, C803, C804	36	KEMET	-55°C ~ 125°C	0402 (1005 Metric)	C0402C104K4RECAUTO	±10%	0.1 µF	0.01	DigiKey
	C401, C402	2	KEMET	-55°C ~ 125°C	0201 (0603 Metric)	CBR02C120F3GAC	±1%	12 pF	0.07	DigiKey
	C405, C503	2	Murata Electronics	-55°C ~ 125°C	0402 (1005 Metric)	GRM1555C1E103JE01J	±5%	10000 pF	0.02	DigiKey
	C412, C805	2	Murata Electronics	-55°C ~ 125°C	0603 (1608 Metric)	GRM188Z71C475KE21J	±10%	4.7 µF	0.04	DigiKey
	C500, C504, C505	3	KEMET	-55°C ~ 125°C	0402 (1005 Metric)	CBR04C101J3GAC	±5%	100 pF	0.02	DigiKey
	C600, C601, C602, C604, C605, C608, C609, C610	8	TDK Corporation	-55°C ~ 125°C	0805 (2012 Metric)	C2012X7S1A226M125AC	±20%	22 µF	0.23	DigiKey
	C607, C612	2	TDK Corporation	-55°C ~ 125°C	0402 (1005 Metric)	CGA2B1X7S1C474K050BC	±10%	0.47 µF	0.03	DigiKey
	C615, C616, C618, C619	4	TDK Corporation	-55°C ~ 125°C	0805 (2012 Metric)	C2012X7S1E106K125AC	±10%	10 µF	0.11	DigiKey
	C617, C620	2	Yageo	-55°C ~ 125°C	0201 (0603 Metric)	CC0201KRX7R8BB222	±10%	2200 pF	0.01	DigiKey
	C700, C702	2	Murata Electronics	-55°C ~ 125°C	0402 (1005 Metric)	GRM1557U1A332JA01D	±5%	3300 pF	0.01	DigiKey
	C701, C703	2	KEMET	-55°C ~ 125°C	0402 (1005 Metric)	C0402C222J8JAC7867	±5%	2200 pF	0.02	DigiKey
	CN200	1								
	CN201	1								
	CN300, CN301	2								
	CN302, CN303	2								
	CN800	1								
	CN803	1								
	D200	1	Semtech Corporation	-40°C ~ 125°C (TJ)	0402 (1005 Metric)	RCLAMP0561PQTCCT			0.13	DigiKey
	D500	1	Murata Electronics	-40°C ~ 85°C (TA)	0402 (1005 Metric)	LXES15AAA1-153			0.04	DigiKey
	D600	1	Everlight Electronics Co Ltd		0402 (1005 Metric)	EAST10052GA0		Green	0.09	DigiKey
	D601	1	Stanley Electric Co		0402 (1005 Metric)	FHY1105P-TR		Yellow	0.05	DigiKey
	D800, D801, D802, D803, D804, D805, D806, D807, D808, D809	10	Nexperia USA Inc.	-65°C ~ 150°C (TA)	SC-76, SOD-323	PESD3V3L1BA,115			0.06	DigiKey
	FB500, FB600, FB800	3	Murata Electronics	-55°C ~ 125°C	0603 (1608 Metric)	BLE18PS0805N1D		8.5 Ohms @ 100 MHz	0.08	DigiKey
	L400	1	TDK Electronics Inc.	-55°C ~ 150°C	0603 (1608 Metric)	B82496C3101J000	±5%	100nH	0.16	DigiKey
	L600, L601	2	Bourns Inc.	-40°C ~ 125°C	Nonstandard	SRN4018-2R2M	±20%	2.2 µH	0.17	DigiKey
	Q200	1	Diodes Incorporated	-55°C ~ 150°C (TJ)	TO-236-3, SC-59, SOT-23-3	BSS84-7-F			0.02	DigiKey
	R200, R204	2	Vishay Dale	-55°C ~ 155°C	0201 (0603 Metric)	CRCW0201120RFNED	±1%	120 Ohms	0.01	DigiKey
	R201, R205, R206, R600, R604, R702, R703, R704, R705	9	Yageo	-55°C ~ 125°C	0201 (0603 Metric)	RC0201FR-13100KL	±1%	100 kOhms	0.01	DigiKey
	R202, R203	2	Vishay Dale	-55°C ~ 155°C	0201 (0603 Metric)	CRCW02011M00JNED	±5%	1 MOhms	0.01	DigiKey
	R300, R301, R400, R401, R501, R608, R609	7	Yageo	-55°C ~ 125°C	0201 (0603 Metric)	AF0201FR-0710KL	±1%	10 kOhms	0.01	DigiKey
	R302, R303, R304, R305, R306, R307, R310, R311, R711, R712	10	Yageo	-55°C ~ 155°C	0201 (0603 Metric)	AC0201FR-074K7L	±1%	4.7 kOhms	0.01	DigiKey
	R308, R312	2	Yageo	-55°C ~ 155°C	0201 (0603 Metric)	AC0201FR-0747KL	±1%	47 kOhms	0.01	DigiKey
	R309, R313	2	Vishay Dale	-55°C ~ 155°C	0201 (0603 Metric)	CRCW020112K0FNED	±1%	12 kOhms	0.01	DigiKey
	R402, R403	2	Yageo	-55°C ~ 155°C	0201 (0603 Metric)	AC0201JR-070RL	Jumper	0 Ohms	0.01	DigiKey
	R500	1	Vishay Dale Thin Film	-55°C ~ 155°C	1206 (3216 Metric)	PHPA1206E49R9BST1	±0.1%	49.9 Ohms	0.76	DigiKey
	R601, R606	2	Yageo	-55°C ~ 125°C	0201 (0603 Metric)	RC0201FR-0715K4L	±1%	15.4 kOhms	0.01	DigiKey
	R602	1	Vishay Dale	-55°C ~ 155°C	0201 (0603 Metric)	CRCW02011K50JNED	±5%	1.5 kOhms	0.10	DigiKey
	R603, R607	2	Yageo	-55°C ~ 125°C	0201 (0603 Metric)	RC0201JR-074K87L	±1%	4.87 kOhms	0.01	DigiKey
	R605	1	Yageo	-55°C ~ 125°C	0201 (0603 Metric)	RC0201JR-07680RL	±5%	680 Ohms	0.01	DigiKey
	R700, R701	2	Yageo	-55°C ~ 125°C	0201 (0603 Metric)	RC0201FR-13470KL	±1%	470 kOhms	0.01	DigiKey
	R706	1	Yageo	-55°C ~ 125°C	0201 (0603 Metric)	RC0201FR-0710K5L	±1%	10.5 kOhms	0.01	DigiKey
	R707	1	Yageo	-55°C ~ 125°C	0201 (0603 Metric)	RC0201FR-0759KL	±1%	59 kOhms	0.01	DigiKey
	R708	1	Yageo	-55°C ~ 125°C	0201 (0603 Metric)	RC0201FR-0747KL	±1%	47 kOhms	0.01	DigiKey
	R709, R710	2	Yageo	-55°C ~ 125°C	0201 (0603 Metric)	RC0201FR-071K8L	±1%	1.8 kOhms	0.01	DigiKey
	R713	1	Ohmite	-55°C ~ 155°C	1206 (3216 Metric)	L4T12FR010DER	±0.5%	10 mOhms	0.08	DigiKey
	R800, R801	2	Yageo	-55°C ~ 155°C	0804, Convex, Long Side Terminals	YC124-FR-0749R9L	±1%		0.03	DigiKey
	R802	1	Panasonic Electronic Components	-55°C ~ 125°C	0201 (0603 Metric)	ERJ-1GNF4303C	±1%	430 kOhms	0.01	DigiKey
	R803	1	Panasonic Electronic Components	-55°C ~ 125°C	0201 (0603 Metric)	ERJ-1GNF6203C	±1%	620 kOhms	0.01	DigiKey
	R804, R805	2	Yageo	-55°C ~ 155°C	0201 (0603 Metric)	AC0201FR-075K1L	±1%	5.1 kOhms	0.01	DigiKey
	S400	1								
	S401	1	Würth Elektronik	-40°C ~ 85°C		450404015514			0.48	DigiKey
	U200, U201	2	Microchip Technology	-40°C ~ 125°C	8-VDFN Exposed Pad	MCP2542FDT-E/MF			0.62	DigiKey
	U300, U301	2								
	U400	1								
	U500	1								
	U600, U601	2								
	U700, U701	2								
	U702	1								
	U800	1								
	Y400	1	Abracon LLC	-40°C ~ 85°C	2-SMD, No Lead	ABS07-32.768KHZ-9-1-T		32.768 kHz	0.86	DigiKey