CER1089A

Band 20 Downlink Bandpass Filter

Part Dimensions: 16.4 × 10.7 × 4.9 mm • 3.7 g
Materials: Ag plated ceramic block with tin plated brass shield

Features

- Low Loss with High Rejection

Description

Surface mount ceramic bandpass filter. Superior rejection, insertion loss, reliability, as well as both peak and average power handling compared other bandpass filter technologies.

Electrical Specifications

Parameter	Frequency (MHz)	Typical at 25°C	Spec. at 25°C	Spec. over -40°C to +85°C
Nominal Impedance	-	50 ohms	-	-
Average Input Power	-	-	-	2.0 Watt max
Peak Input Power	-	-	-	20 Watt max
Input-Output Response				
Passband Insertion Loss (5MHz avg)	791 - 821	2.4 dB	2.6 dB max	2.7 dB max
Passband Ripple	791 - 821	1.0 dB	1.2 dB max	1.3 dB max
Passband Return Loss	791 - 821	12 dB	10 dB min	10 dB min
Attenuation:	< 748	18 dB	15 dB min	15 dB min
	832 - 960	17 dB	15 dB min	15 dB min

Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances.

Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

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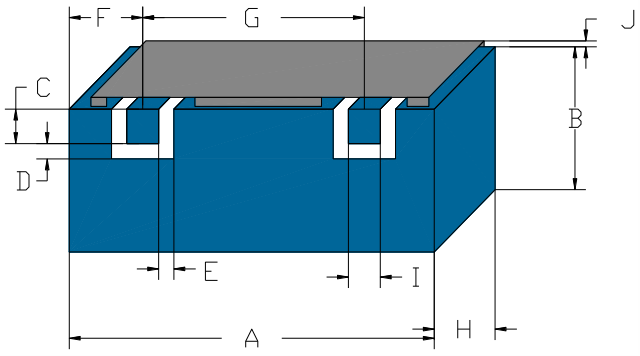
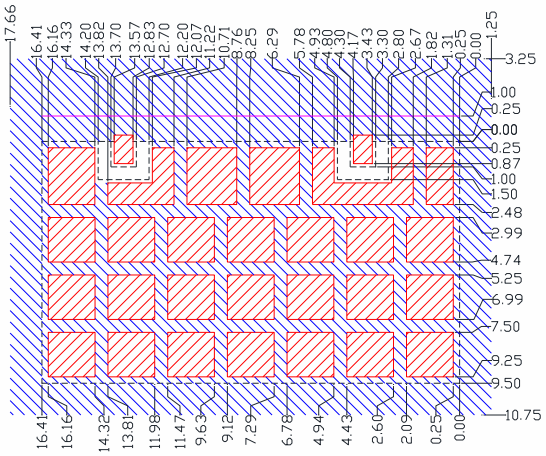
Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	16.42	max
B	9.50	max
C	1.00	0.13
D	0.50	0.13
E	0.50	0.13
F	3.80	0.13
G	9.40	0.13
H	4.85	max
I	1.00	0.13
J	1.00	0.20

PCB Layout



IMPORTANT: Please assure >=20mils (0.5mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the required ground plane.

Please assure sufficient ground vias between the top metal ground plane and the primary ground plane.

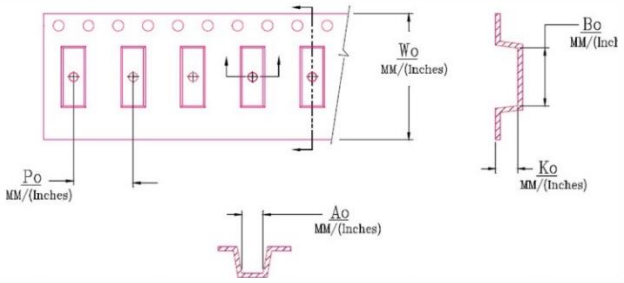
Recommended solder: 4-6 mils of SAC305 with reflow including 120s of soak at 217°C, and up to 30 sec peak at 241°C.

Packaging and Marking

Dimension	Units	Spec.
Reel Diameter	mm	330
Reel Weight	kg	3.1
Reel Quantity	ea.	500

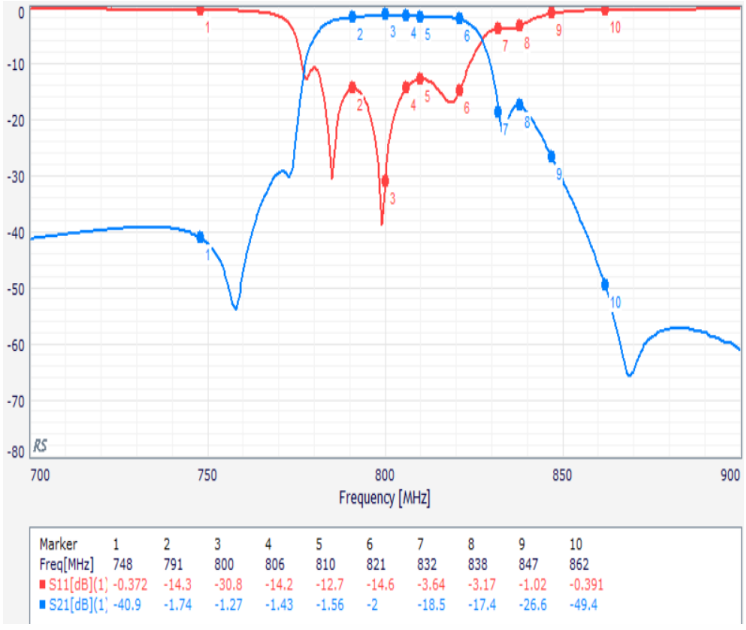
Product Marking

Customer Feed Direction → → →



W_o	A_o	B_o	K_o	P_o
1.260 in 32.0 mm	0.437 in 11.0 mm	0.657 in 16.7 mm	0.203 in 5.15 mm	0.630 in 16.0 mm

Electrical Response



Marker	1	2	3	4	5	6	7	8	9	10
Freq[MHz]	748	791	800	806	810	821	832	838	847	862
S11[dB](1)	-0.372	-14.3	-30.8	-14.2	-12.7	-14.6	-3.64	-3.17	-1.02	-0.391
S21[dB](1)	-40.9	-1.74	-1.27	-1.43	-1.56	-2	-18.5	-17.4	-26.6	-49.4