RoHS Compliant

Connect

UMB310A - PRELIMINARY

2875-3325 MHz Bandpass Filter

Features

- Low loss with high rejection
- Support I/O spacing to allow expanded-length universal footprint with UMB family TDD bands

Part Dimensions: 56.8 × 11.6 × 14.7 mm • 28.3 g
Materials: Ag plated ceramic block with tin plated brass shield

Applications

- Wireless Infrastructure applications
- High-performance carrier-grade TDD Pico-cells
- Wide-band DAS, Repeaters, massive MIMO systems, or small-cells basestations

Description

Surface mount ceramic bandpass filter for TDD frequency band designed to share an extended PCB footprint with the MMB family. Superior rejection, insertion loss, reliability, as well as both peak and average power handling compared to other bandpass filter technologies.

Electrical Specifications

Parameter	Frequency (MHz)	Typical at 25⁰C	Spec. at 25⁰C	Spec. over -40⁰C to +85⁰C
Nominal Impedance	-	50 ohms	-	-
Average Input Power	-	-	-	20 Watt max
Peak Input Power	-	-	-	200 Watt max

Input-Output Response

Passband Insertion Loss	2875 - 3325	0.5 dB	0.6 dB max	0.7 dB max
Passband Ripple	2875 - 3325	0.3 dB	0.4 dB max	0.5 dB max
Passband Return Loss	2875 - 3325	15 dB	14 dB min	14 dB min
Attenuation:	2200	32 dB	30 dB min	30 dB min
	2690	22 dB	20 dB min	20 dB min
	3600	22 dB	20 dB min	20 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
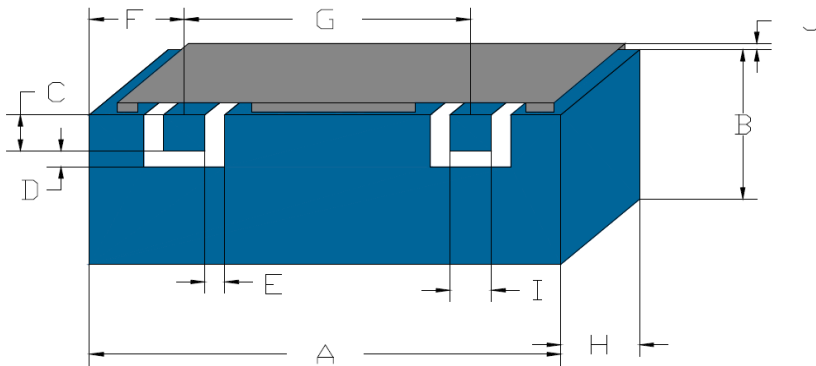Return Loss   1.0 dB
Attenuation   1.0 dB

Mechanical Drawing

Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	56.4	0.40
B	5.00	max
C	2.03	0.13
D	1.27	0.13
E	1.27	0.13
F	9.70	0.25
G	37.0	0.13
H	14.5	0.20
I	2.03	0.13
J	2.20	0.2

PCB Layout

---------- Filter Outline

▨ Exposed Conductor

▨ Solder Resist Over Dielectric

▨ Solder Resist Over Conductor

Packaging and Marking

CTS
310
YWW

Packaging TBD

Electrical Response

UMB 2875-3325MHz 3D.s2p

Marker	1	2	3	4	5	6	7	8	9
Freq[MHz]	2200	2690	2875	3100	3325	3600	5800	6600	8700
S11[dB](1)	-0.0196	-0.0761	-30	-22.9	-37.1	-0.06	-3.87	-1	-5.66
S21[dB](1)	-67.4	-43.8	-0.337	-0.183	-0.209	-25	-3.68	-23.3	-2.79