

DPX4041A

2300-2400/2496-2690MHz Diplexer

Features

- Narrowband diplexing combines neighboring frequency bands.
- Superior power handling and reliability
- Universal footprint across various band combinations

Applications

- Wireless Infrastructure applications
- High-performance carrier-grade Repeaters, DAS, and multi-band Small Cells up to 2W/band at the antenna port.



Part Dimensions: 28.5 x 5.3 x 5.0 • 2.7 g
Materials: Ag plated ceramic block with tin plated brass shield

Description

Surface mount ceramic diplexer supports a universal footprint across all neighboring band combinations enabling the use of a common system PCB. Provides superior rejection, insertion loss, reliability, as well as both peak and average power handling compared to other diplexer 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 per port	-	-	-	3.0 Watt max
Peak Input Power per port	-	-	-	20 Watt max
Average Combined Output Power	-	-	-	5.0 Watt max
Peak Combined Output Power	-	-	-	32 Watt max

Low-band to Antenna Response

Passband Insertion Loss (5 MHz avg)	2300-2400	0.9 dB	1.0 dB max	1.0 dB max
Passband Return Loss	2300-2400	11 dB	10 dB min	10 dB min
Attenuation:	2496-2690	23 dB	20 dB min	20 dB min

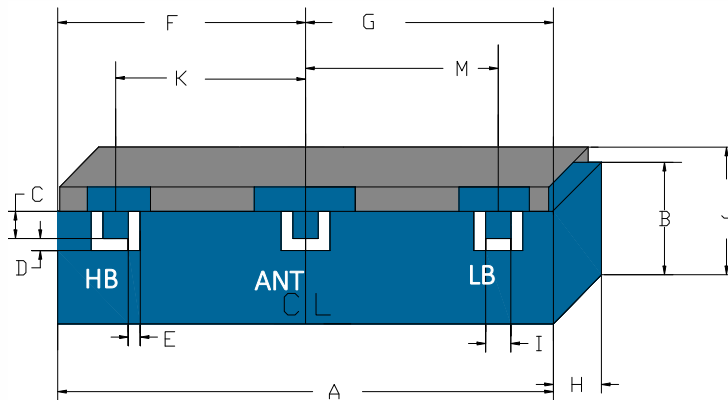
High-band to Antenna Response

Passband Insertion Loss (5 MHz avg)	2496-2690	0.9 dB	1.0 dB max	1.0 dB max
Passband Return Loss	2496-2690	11 dB	10 dB min	10 dB min
Attenuation:	2300-2400	37 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.

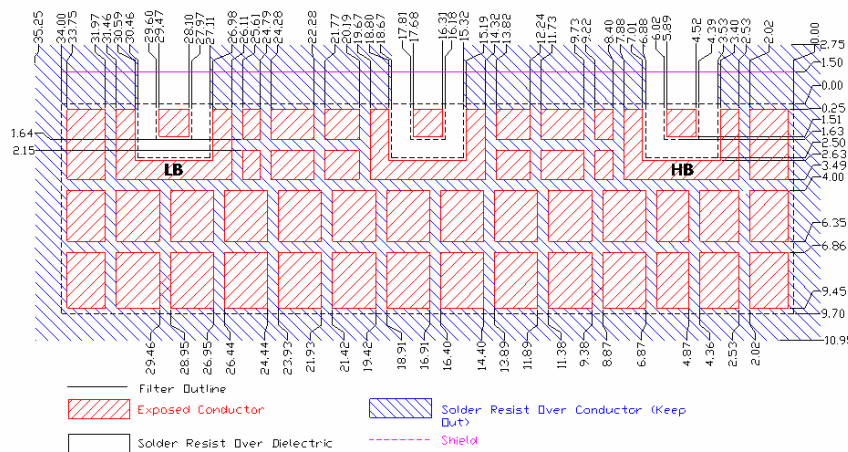
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



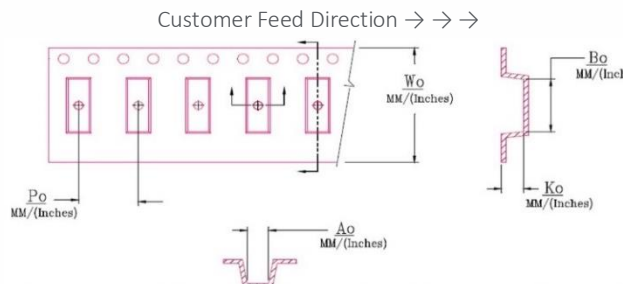
Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	28.5	Max
B	4.20	Max
C	1.63	0.13
D	0.86	0.13
E	0.86	0.13
F	14.12	0.13
G	14.12	0.13
H	5.00	Max
I	1.63	0.13
J	5.30	Max
K	11.79	0.13
M	11.79	0.13

PCB Layout



Packaging and Marking

Dimension	Units	Spec.	Product Marking
Reel Diameter	mm	330	CTS
Reel Weight	kg	3.8	4041
Reel Quantity	ea.	250	YWW



Electrical Response

