

# DPX6503A

## Band 65 (extension of B1) and 3 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: 34.0 × 10.0 × 8.0 mm • 12.0 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)	1710-1880		1.6 dB max <b>or less?</b>
Passband Return Loss	1710-1880		10 dB min
Attenuation:	1920/1-2200	Single point	30 dB min <b>target</b>
	1920-2200	5 Mhz avg	35 dB min <b>target</b>

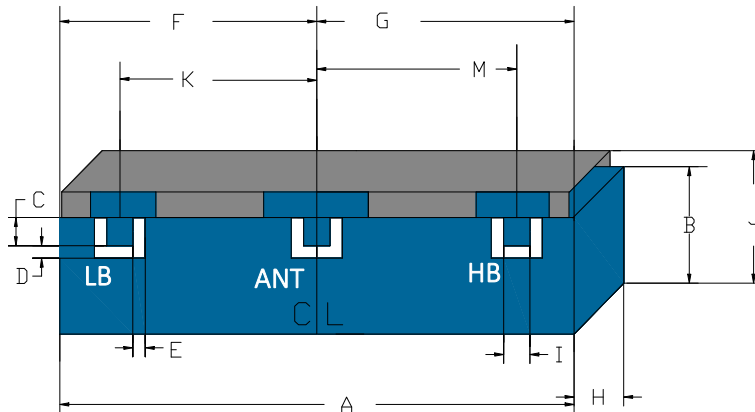
#### High-band to Antenna Response

Passband Insertion Loss (5 MHz avg)	1920-2200		1.6 dB max <b>or less?</b>
Passband Return Loss	1920-2200		10 dB min
Attenuation:	1710-1879/80	Single point	30 dB min <b>target</b>
	1710-1880	5 Mhz avg	35 dB min <b>target</b>

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.

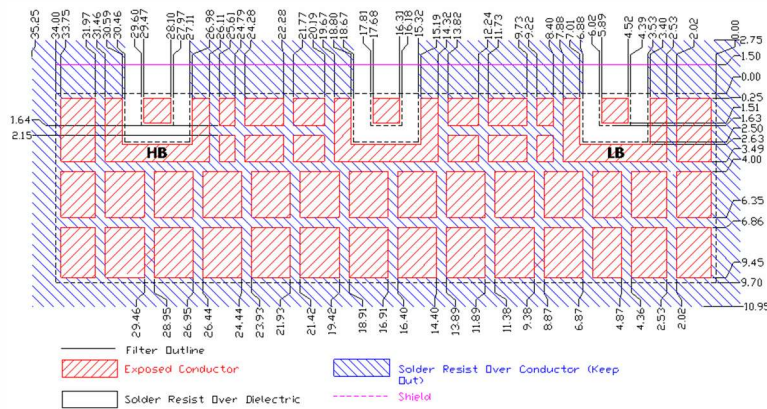
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

## Mechanical Drawing



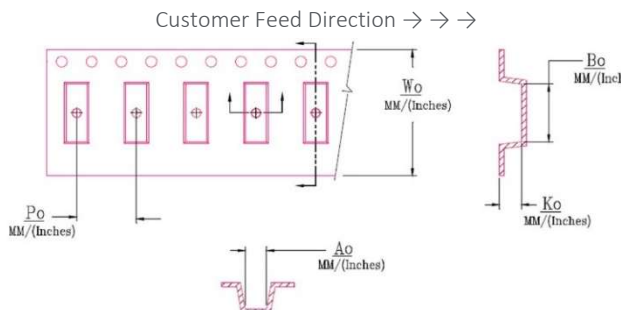
Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	34.00	Max
B	4.70	Max
C	1.63	0.13
D	0.86	0.13
E	0.86	0.13
F	16.87	0.13
G	16.87	0.13
H	6.56	Max
I	1.63	0.13
J	5.80	Max
K	11.79	0.13
M	11.79	0.13

## PCB Layout



## Packaging and Marking

Dimension	Units	Spec.	Product Marking
Reel Diameter	mm	330	<div style="border: 1px solid black; padding: 2px; display: inline-block;">           CTS 6503 YWW         </div>
Reel Weight	kg	3.8	
Reel Quantity	ea.	250	



Wo	Ao	Bo	Ko	Po
1.732 in	x.xxx in	x.xxx in	x.xxx in	x.xxx in
44.0 mm	x.x mm	x.x mm	x.x mm	x.x mm

## Electrical Response

