

MPX2028A - PRELIMINARY

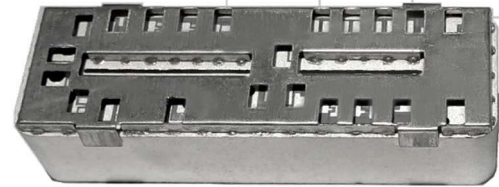
703-736/758-821/832-862MHz Special Duplexer

Features

- Supports combination of Band 20+28 with combined DL, and shared port for lower + upper UL.
- Superior power handling and reliability

Applications

- High-performance carrier-grade Wireless Infrastructure up to 2W/band at the antenna port.



Part Dimensions: 63.5 x 20.0 x <20 • <70.0 g
Materials: Ag plated ceramic block with tin plated brass shield

Description

Surface mount ceramic tri-band duplexer provides superior rejection, insertion loss, reliability, as well as both peak and average power handling compared to other 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	-	-	-	5.0 Watt max
Peak Input Power per port	-	-	-	50 Watt max

Antenna to Uplink Response

Low-band Insertion Loss (5 MHz avg)	703-736	1.6 dB max	1.8 dB max
Low-band Insertion Loss (single point)	703-736	1.8 dB max	2.0 dB max
Low-band Return Loss	703-736	12 dB min	12 dB min
Low-band Ripple	703-736	1.2 dB max	1.4 dB max
High-band Insertion Loss (5 MHz avg)	832-862	3.2 dB max	3.4 dB max
High -band Insertion Loss (single point)	832-862	4.0 dB max	4.3 dB max
High -band Return Loss	832-862	12 dB min	12 dB min
High -band Ripple	832-862	3.2 dB max	3.5 dB max
Attenuation:	758-760	50 dB min	50 dB min
	760-819	55 dB min	55 dB min
	819-821	50 dB min	50 dB min

Downlink to Antenna Response

Passband Insertion Loss (5 MHz avg)	758-821	3.4 dB max	3.6 dB max
Passband Insertion Loss (single point)	758-821	4.0 dB max	4.5 dB max
Passband Return Loss	758-821	10.5 dB min	10.5 dB min
Passband Ripple	758-821	3.0 dB max	3.2 dB max
Attenuation:	650-702	45-65 dB min	45-65 dB min
Low-band	703-736	65 dB min	65 dB min
High-band	832-862	65 dB min	65 dB min
	863-960	45-65 dB min	45-65 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



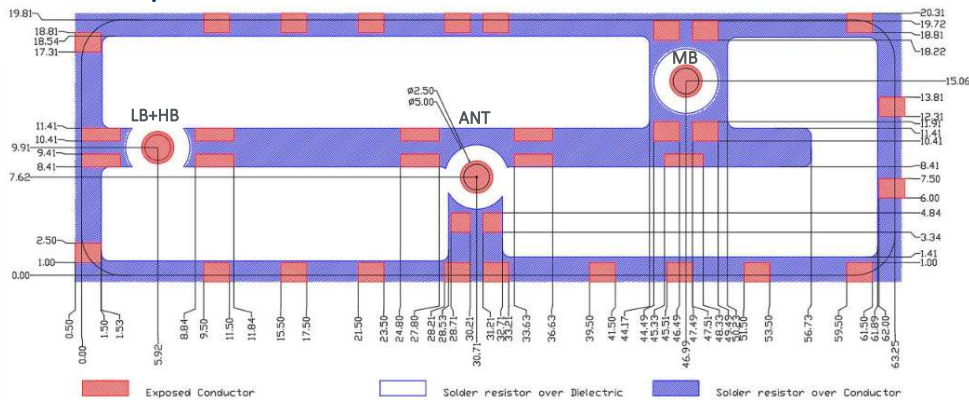
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Mechanical Drawing

Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	63.50	Max
B		0.30
C		0.13
D		0.13
E		0.13
F		0.13
G		0.13
H	20.00	Max
I		0.13
J	20.00	Max
K		0.13
M		0.13

PCB Layout

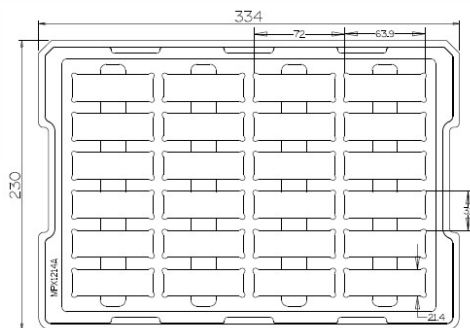


Packaging and Marking

Product Marking

CTS
2028
YWW

Product is shipped in
thermo formed plastic trays



The trays have 24 slots each with one filter per slot. Boxes are packed with 5 Trays per box for a total of 120 filters per box.

Electrical Response

