

NPX7080A - PRELIMINARY

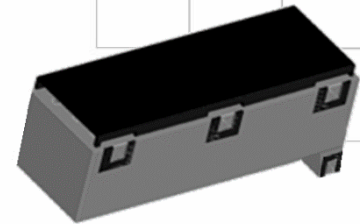
768-775/798-816/851-861MHz Triplexer

Features

- Narrowband diplexing combines neighboring frequency bands.
- Superior power handling and reliability

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: 30.0 x 15.8 x 9.8 • 18.5 g
Materials: Ag plated ceramic block with tin plated brass shield

Description

Surface mount ceramic triplexer 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	-	-	-	3.0 Watt max
Peak Input Power per port	-	-	-	30 Watt max
Average Combined Output Power	-	-	-	3.0 Watt max
Peak Combined Output Power	-	-	-	30 Watt max

Low-band to Antenna Response

Passband Insertion Loss (5 MHz avg)	768-775			
Passband Insertion Loss (single point)	768-775	2.8 dB	3.2 dB max	3.2 dB max
Passband Return Loss	768-775	13 dB	11 dB min	11 dB min
Passband Ripple	768-775	0.9 dB	1.2 dB max	1.2 dB max
PIM IMD5 (2x27dBm in 798-816MHz)	768-775			-135 dBm max target
Attenuation:	1-716	34 dB	27 dB min	27 dB min
	788-797	29 dB	27 dB min	27 dB min
Mid-band	798-816	60 dB	58 dB min	58 dB min
High-band	851-861	54 dB	50 dB min	50 dB min

Mid-band to Antenna Response

Passband Insertion Loss (5 MHz avg)	798-816			
Passband Insertion Loss (single point)	798-816	2.8 dB	3.2 dB max	3.2 dB max
Passband Return Loss	798-816	13 dB	11 dB min	11 dB min
Passband Ripple	798-816	0.5 dB	1.0 dB max	1.0 dB max
Attenuation:	1-767			35 dB min
Low-band	768-775	60 dB	58 dB min	58 dB min
High-band	851-861	58 dB	57 dB min	57 dB min
	1596-1632	27 dB	25 dB min	25 dB min



High-band to Antenna Response

Passband Insertion Loss (5 MHz avg)	851-861			
Passband Insertion Loss (single point)	851-861	2.5 dB	3.2 dB max	3.2 dB max
Passband Return Loss	851-861	13 dB	11 dB min	11 dB min
Passband Ripple	851-861	0.5 dB	1.0 dB max	1.0 dB max
PIM IMD5 (2x27dBm in 798-816MHz)	851-861			-135 dBm max target
Attenuation:	Low-band	768-775	> 65 dB	50 dB min
	Mid-band	798-816	> 65 dB	60 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.

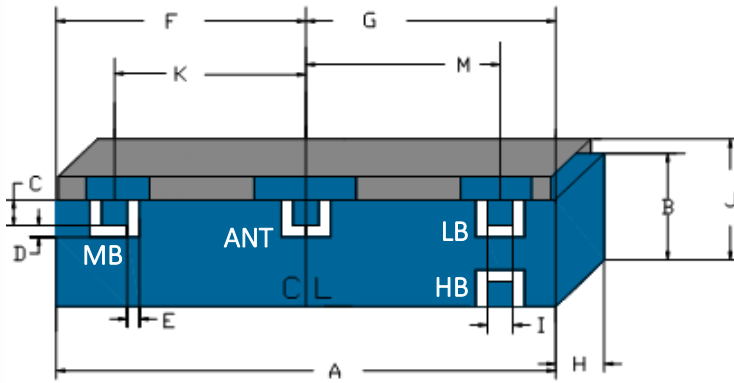
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB



PRELIMINARY - NPX7080A

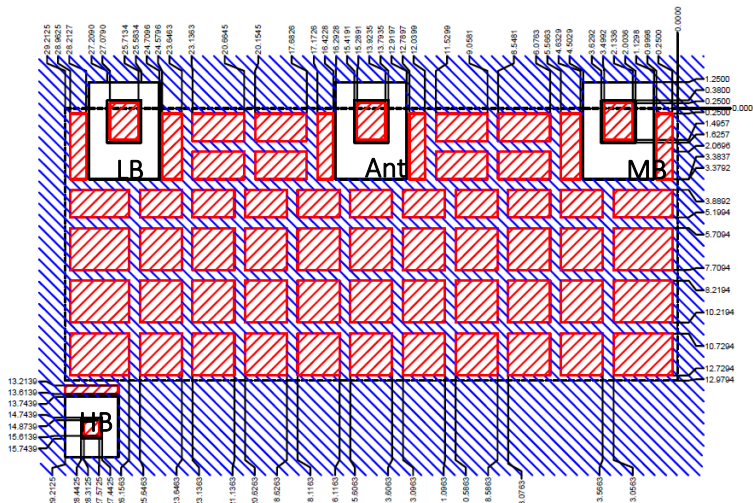
768-775/798-816/851-861MHz Triplexer

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	30.0	Max
B	12.98	0.30
C	1.63	0.13
D	0.86	0.13
E	0.86	0.13
F	14.73	0.13
G	14.73	0.13
H	9.8	Max
I	1.63	0.13
J	14.70	Max
K	11.79	0.13
M	11.79	0.13

PCB Layout



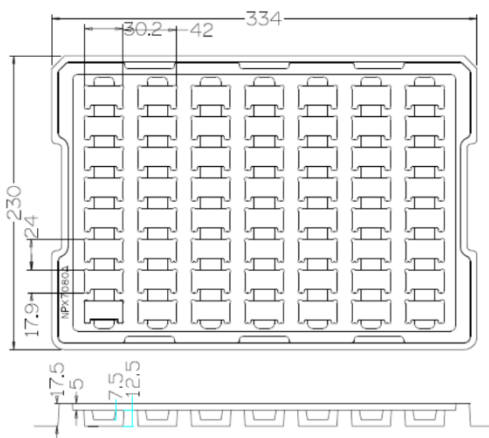
Filter Outline
Exposed Conductor
Solder Resist Over Dielectric (Keep Out Area)
Solder Resist Over Dielectric (I/O Keep Out Area)

Packaging and Marking

Product Marking

Product is shipped in thermo-formed plastic trays

CTS
7080
YWW



The trays have 56 slots each with one filter per slot. Boxes are packed with 4 Trays per box for a total of 224 filters per box.

Electrical Response

