

**SPECIFICATION**  
**COMMERCIALY AVAILABLE**

**ITEM: CERAMIC DUPLEXER**

**PART NUMBER: FNP-1451**

**Also available as SMD, see CFD-2072224514**

ISSUED / REVISION	ENGINEER APPROVED	DOCUMENT CHECKED	DRAFTSMAN
06/25/18 <sup>PG</sup>			

***FILTRONETICS Inc***

**1. Application**

THIS SPECIFICATION APPLIES TO A BAND PASS DUPLEX FILTER USING DIELECTRIC RESONATORS.

**2. Part Number: FNP-1451**

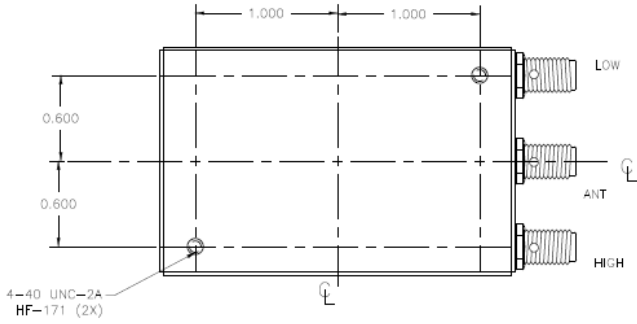
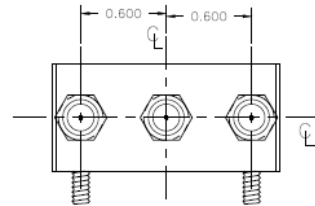
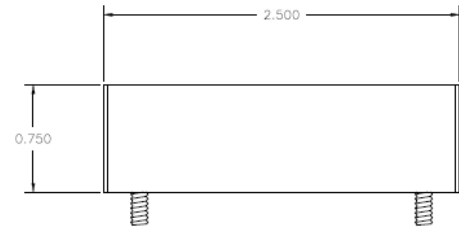
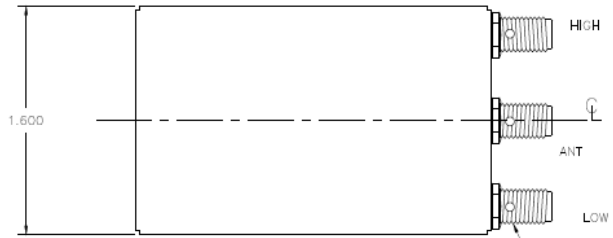
**3. Electrical Specifications:**

Parameter	Unit	Specification	
		Low Band (Rx)	High Band (Tx)
Center Frequency	MHz	2072.5	2245
Bandwidth	MHz	2025 ~ 2120 MHz	2200 ~ 2290 MHz
Insertion Loss in BW	dB	3.3 Max	
Ripple in BW	dB	1.5 Max	
Return Loss in BW	dB	16.0 Min	
Attenuation	dB	60 Min @ 2200 ~ 2290 MHz	60 Min @ 2025 ~ 2120 MHz
		60 Min @ 1400 ~ 1650 MHz	
IN/OUT Impedance	$\Omega$	50	
Input Power	Watt	5 Max	
Operating Temperature	$^{\circ}\text{C}$	-40 ~ +85	

4. Mechanical Package

DOC. NO. Q65014-160

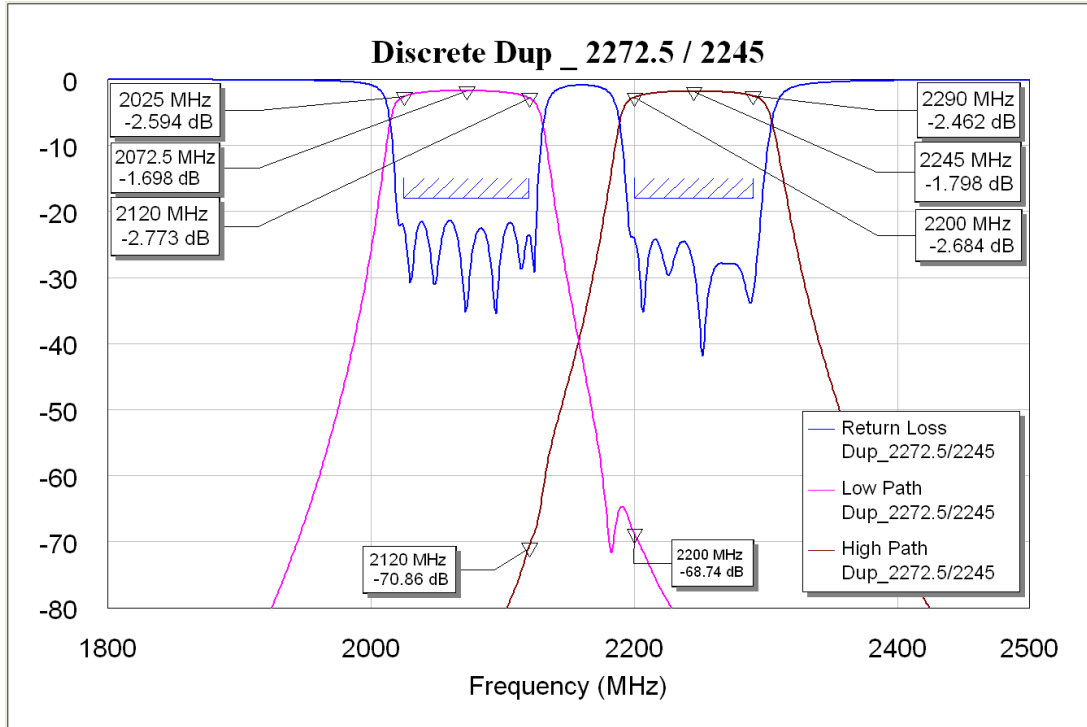
THIS IS A COMPUTER GENERATED DRAWING.  
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COMPONENTS			
CAN	FA-TBD		
COVER	FB-TBD		
CONNECTORS	DA-093	HARDWARE	HF-171

USED ON	NEXT ASSY	REVISION DESCRIPTIONS												MATERIAL:	APPROVALS	INITIALS	DATE	MARKING AND FINAL DIMENSIONS <b>FILTRONETICS, INC.</b> KANSAS CITY, MISSOURI	
		ADDED:						ADDED:						26 GA CRS (0.018")	DESIGN:		6/22/18		UNITS IN INCHES UNLESS NOTED DWG. NO.: Q65014160 CODE IDENT. NO. 53733 SHEET 1 OF 1
		REVISED:						REVISED:						FINISH:	CHECKED:	PG			
		DELETED:						DELETED:						FE-003 MIL-T 10727	APPR'D:				
		REV	ECO #	BY	DATE	APPR'D	DATE	REV	ECO #	BY	DATE	APPR'D	DATE	REFLOW	TOLEANCE UNLESS NOTED	HOLES =	SCALE: 1:1		
Q65014	-	-	-	PG	6/22/18										ANGLE = ± 1°	± .002			

5. Simulation



6. Definitions

TERMS	DESCRIPTION	SPECIFICATION
Center Frequency	The midpoint of through band pass filter pass band, normally expressed as the arithmetic mean of the -3db point. Also called fo.	3. SPECIFICATION
Pass Band Width	The width of the pass band of a filter referenced to the minimum insertion loss point in the pass band. The pass band of a filter is stated as -1.0dB bandwidth.	
Insertion Loss	The loss of the filter, in db, measured at center frequency relative to a through line (0 dB).	
Attenuation	Reduction of RF power through a filter measured in dB, at desired band and referenced to 0 dB. (Filter to be removed from circuit)	
Pass Band Ripple	Variations in loss in the pass band of the filter, superimposed upon the fundamental shape of the pass band.	
V.S.W.R in Pass Band	The ratio of the maximum value of a standing wave to its minimum value, related to the return loss in pass band.	