

Technical Proposal for JX-CD2-PS800-611B Cavity Duplexer

- ◆ Low Insertion Loss
- ◆ High Isolation
- ◆ High Reliability

Revision History

Version	Date	Author	Revision description	Comment
V1.0	2018/08/21	Lee	Created	/
V1.1	2018/08/22	Lee	Update the dimension of the duplexer	The customer request
V1.2	2018/09/14	Lee	Update the dimension of installation position	The customer request 5.0mm→3.8mm

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1. Mechanical layout

Table 1 Mechanical Specifications @ JX-CD2-PS800-611B

Dimension	LxWxH: 160mm x 150mm x 36mm (Max 43mm)
Port connectors	SMB-Female
Finish	Silver
Material	Indoor applications
Notes	Material shall be RoHS 6/6

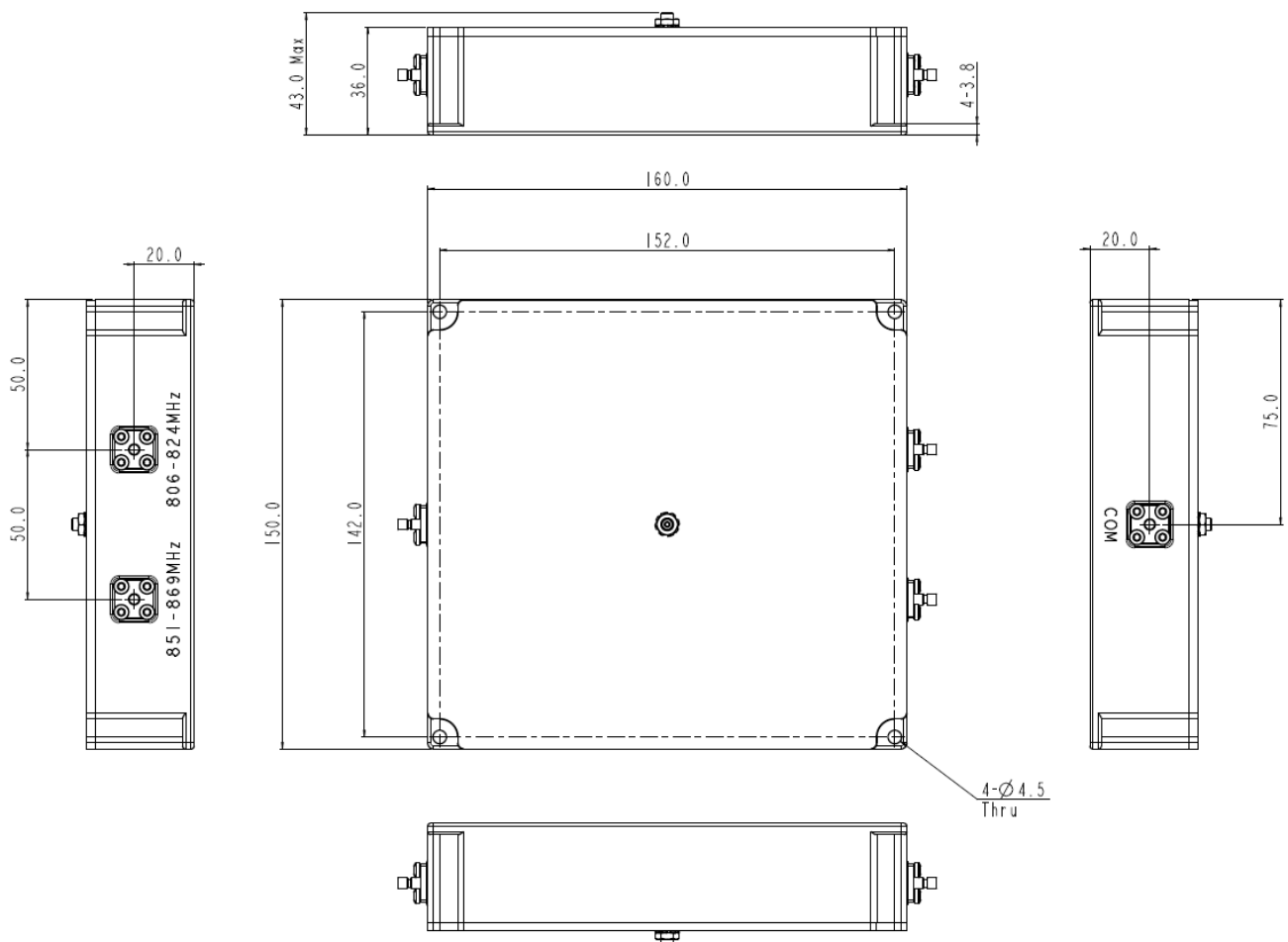


Figure 1 JX-CD2-PS800-611B front panel layout

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2. Electrical analysis

2.1 Schematic diagram of the Duplexer

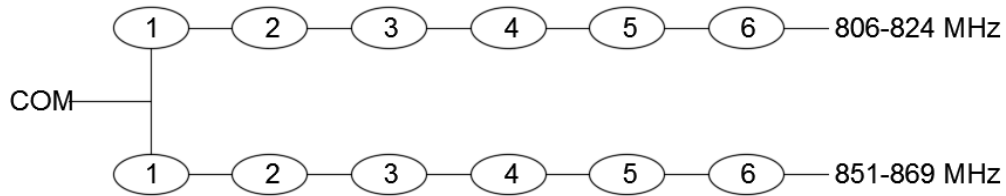


Figure 2 Topology of the Duplexer

2.2 Electrical specifications

Table 2 Electrical specifications @ JX-CD2-PS800-611B

Item	Model	JX-CD2-PS800-611B	
1	Frequency range	806-824MHz	851-869MHz
2	Return loss	≥16dB	≥16dB
3	Insertion loss	≤1.0dB@806MHz ≤1.3dB@824MHz	≤1.3dB@851MHz ≤1.0dB@869MHz
4	In-band ripple	≤1.0dB	≤1.0dB
5	Rejection	≥85dB@851-869MHz ≥40dB@837.5MHz	≥85dB@806-824MHz ≥40dB@837.5MHz
6	Isolation	≥80dB@806-824MHz&837.5MHz&851-869MHz	
7	Power	25 Watt	
8	Temperature	-30 °C to +60 °C	

2.3 The simulation curve

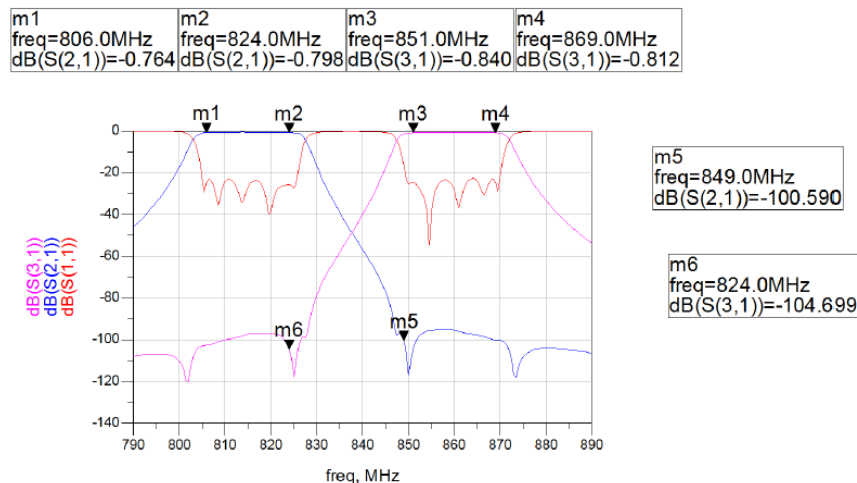


Figure 3 The simulation curve of the duplexer

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