

Technical proposal for JX-CD2-806870-65S Cavity Duplexer

Revision History

Version	Date	Author	Revision description	Comment
V1.0	2018/03/29	Lee	Created	/
V1.1	2018/03/30	Lee	Update the dimension of mechanical layout	Customer request

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1. Mechanical layout

Table 1 Mechanical Specifications @ JX-CD2-806870-65S

Dimension	LxWxH: 145mm x 106mm x 35mm (42mm Max)
Port connectors	SMA-Female 4 hole panel receptacle plug
Finish	Ivory Painting
Notes	Material shall be RoHS 6/6

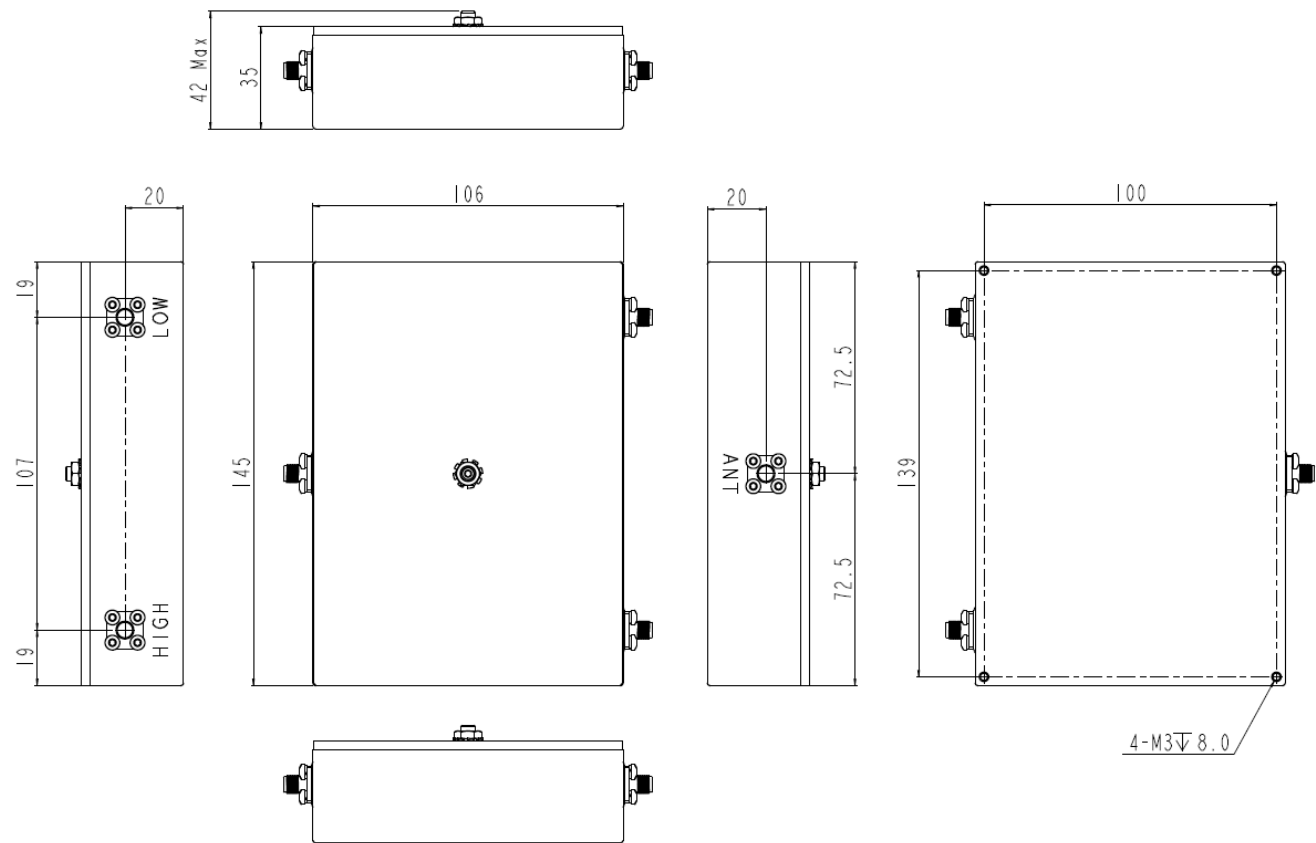


Figure 1 JX-CD2-806870-65S front panel layout

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2. Electrical analysis

2.1 Schematic diagram of the Duplexer

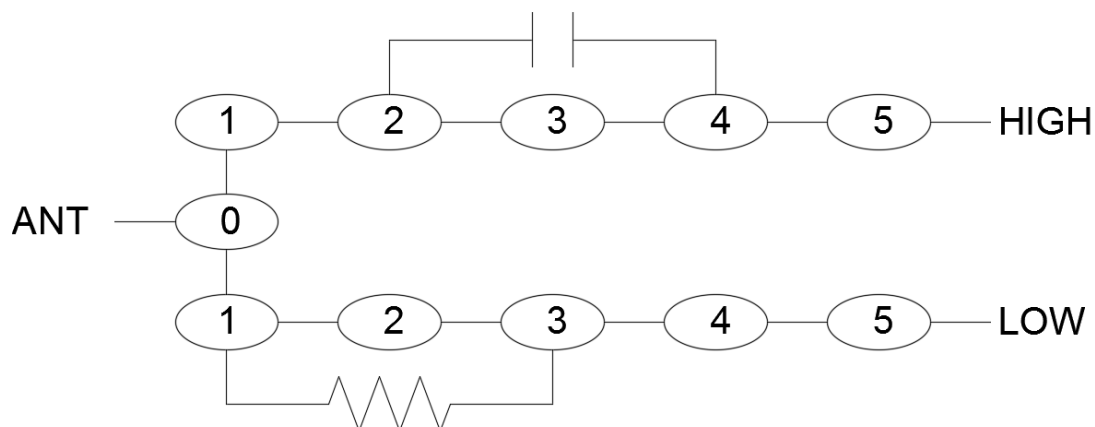


Figure 2 Topology of the Duplexer

2.2 Electrical specifications

Table 2 Electrical specifications @ JX-CD2-806870-65S

Item	Parameter	LOW	HIGH	JX Suggest
1	Frequency range	806-825MHz	851-870MHz	OK
2	Return loss (Normal Temp)	≥20 dB	≥20 dB	OK
	Return loss (Full Temp)	≥20 dB	≥20 dB	OK
3	Max insertion loss (Normal Temp)	≤1.5 dB	≤1.5 dB	OK
	Max insertion loss (Full Temp)	≤1.5 dB	≤1.5 dB	OK
4	Attenuation (Normal Temp)	≥65 dB @ 851-870MHz	≥65 dB @ 806-825MHz	OK
	Attenuation (Full Temp)	≥65 dB @ 851-870MHz	≥65 dB @ 806-825MHz	OK
5	Isolation (Normal Temp)	≥40 dB @ 806-870MHz		OK
	Isolation (Full Temp)	≥40 dB @ 806-870MHz		OK
6	Impedance all ports	50 Ohm		OK
7	Input Power	10 Watt max		OK
8	Operating Temperature Range	-20°C to +70°C		OK

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2.3 The simulation curve

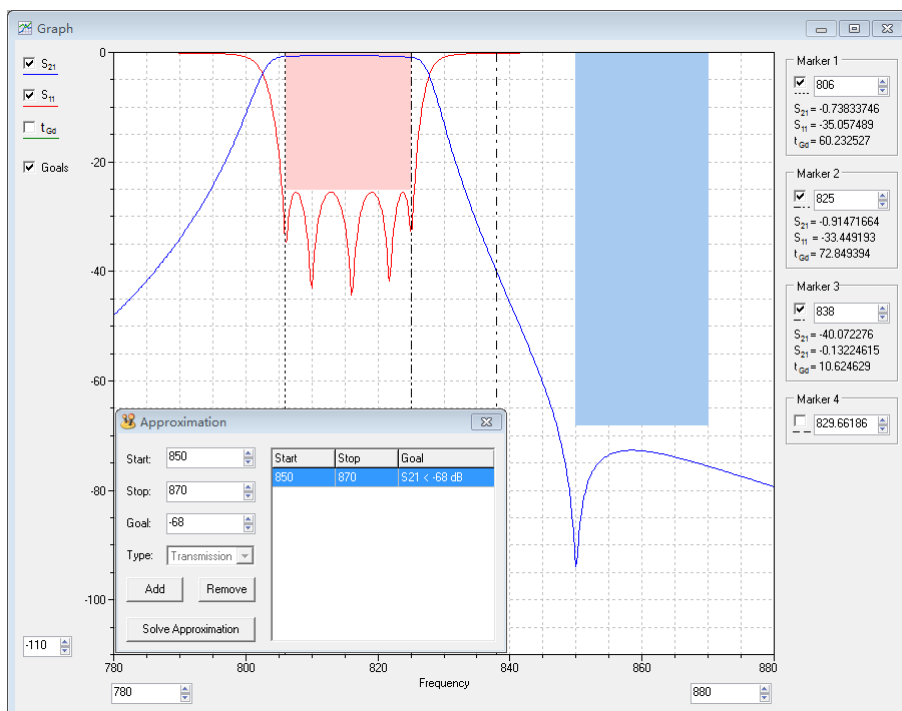


Figure 3 The simulation curve of LOW path

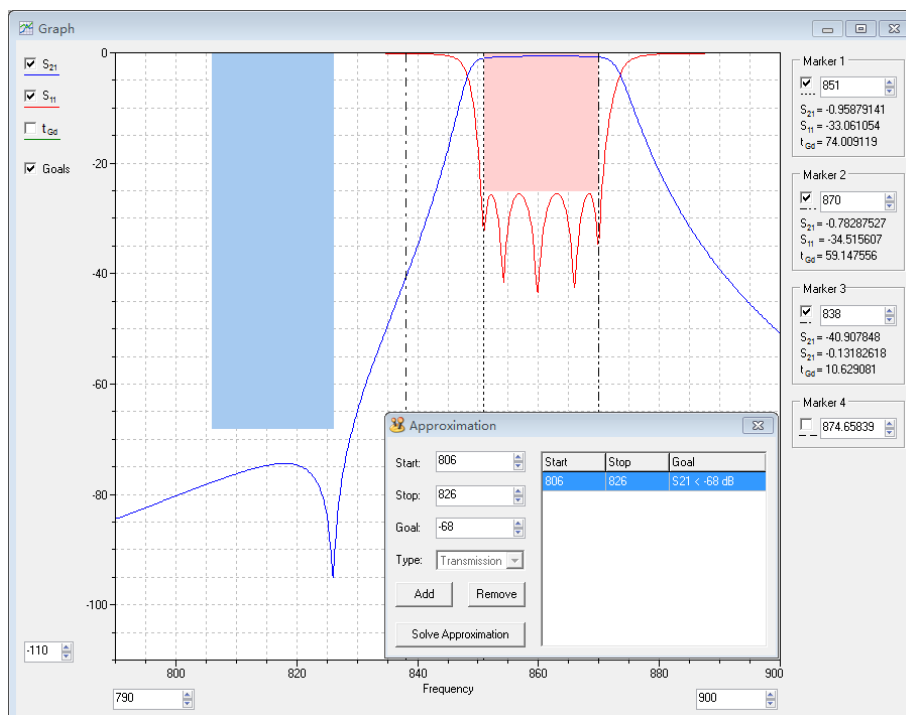


Figure 4 The simulation curve of HIGH path

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