

Technical proposal for JX-CD2-380M396.5M-65D Cavity Duplexer

- ◆ Low PIM
- ◆ High Rejection
- ◆ High Reliability

Revision History

Version	Date	Author	Revision description	Comment
V1.0	2020/05/09	Lin liqun	Created	/
V1.1	2020/05/11	Lee	Updated the insertion loss: $\leq 2.0\text{dB}$ \rightarrow $\leq 1.7\text{dB}$	Customer request
V1.2	2020/05/15	Lee	Updated the input power handling	Customer request
V1.3	2020/05/27	Lee	Updated the finish: Silver \rightarrow Gray paint spraying	Customer request
V1.4	2020/08/12	Lee	Updated the finish: Gray paint spraying \rightarrow Black paint spraying	Customer request

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1. Mechanical layout

Table 1 Mechanical specifications @ JX-CD2-380M396.5M-65D

Dimension	LxWxH: 265mm x 150mm x 61mm (67mm Max)
Port connectors	DIN(7/16)-Female
Finish	Black paint spraying
Notes	Material shall be RoHS 6/6

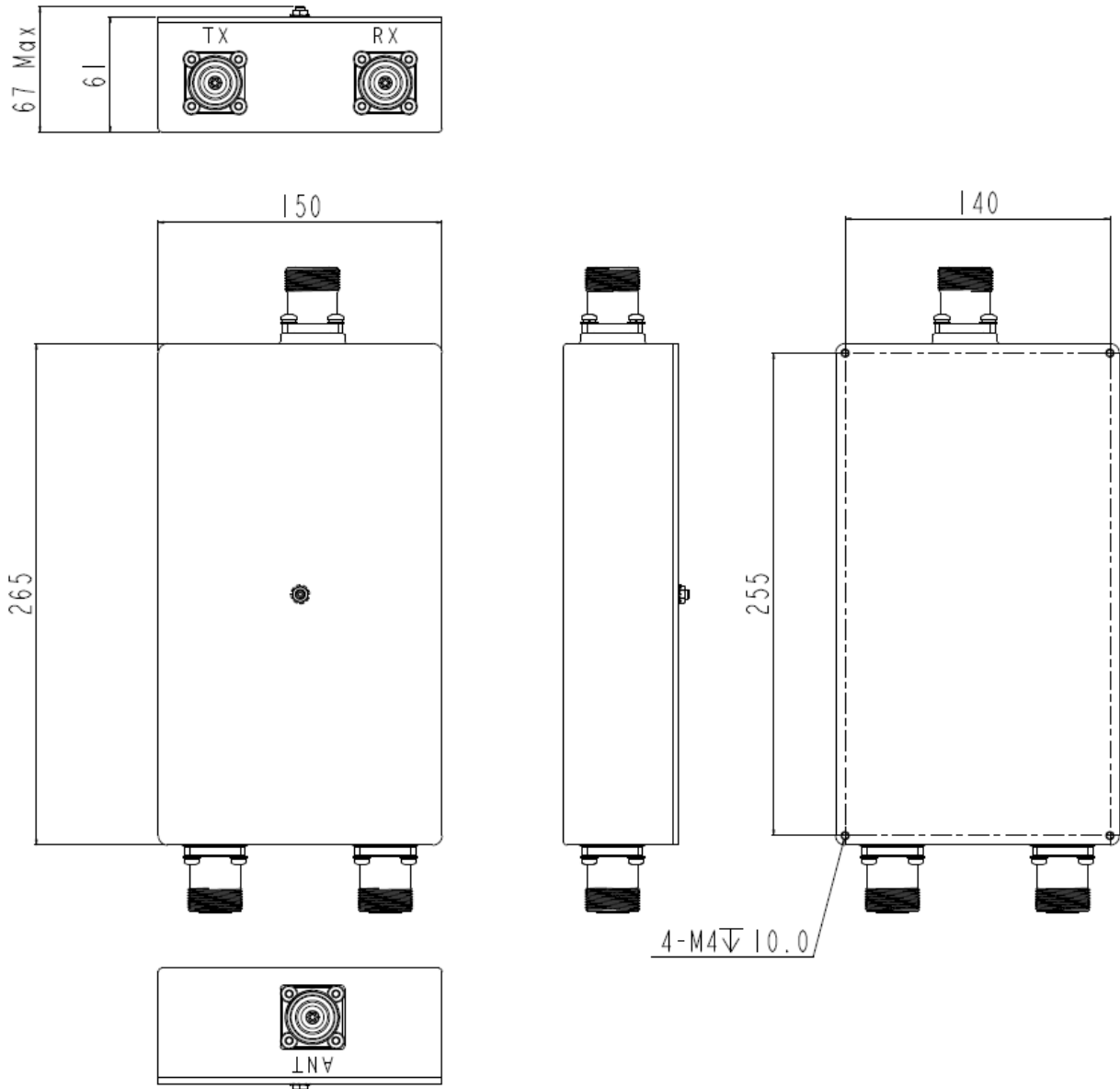


Figure 1 JX-CD2-380M396.5M-65D front panel layout

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2. Electrical analysis

2.1 Electrical specifications

Table 2 Electrical specifications @ JX-CD2-380M396.5M-65D

Item	Parameter	RX	TX
1	Frequency range	380-386.5MHz	390-396.5MHz
2	Return loss	≥18dB	≥18dB
3	Insertion loss	≤1.7dB	≤1.7dB
4	Rejection	≥65dB@390-396.5MHz	≥65dB@380-386.5MHz
5	Isolation	≥65dB@380-386.5MHz &390-396.5MHz	
		≥45dB@386.5MHz -390MHz	
6	PIM3	-155dBc@2*43dBm	
7	Input power	Average: 150W Max Peak: 1000W Max	
8	Operating temperature range	-10°C to +60°C	
9	Impedance	50 Ω	

2.2 The simulation curve

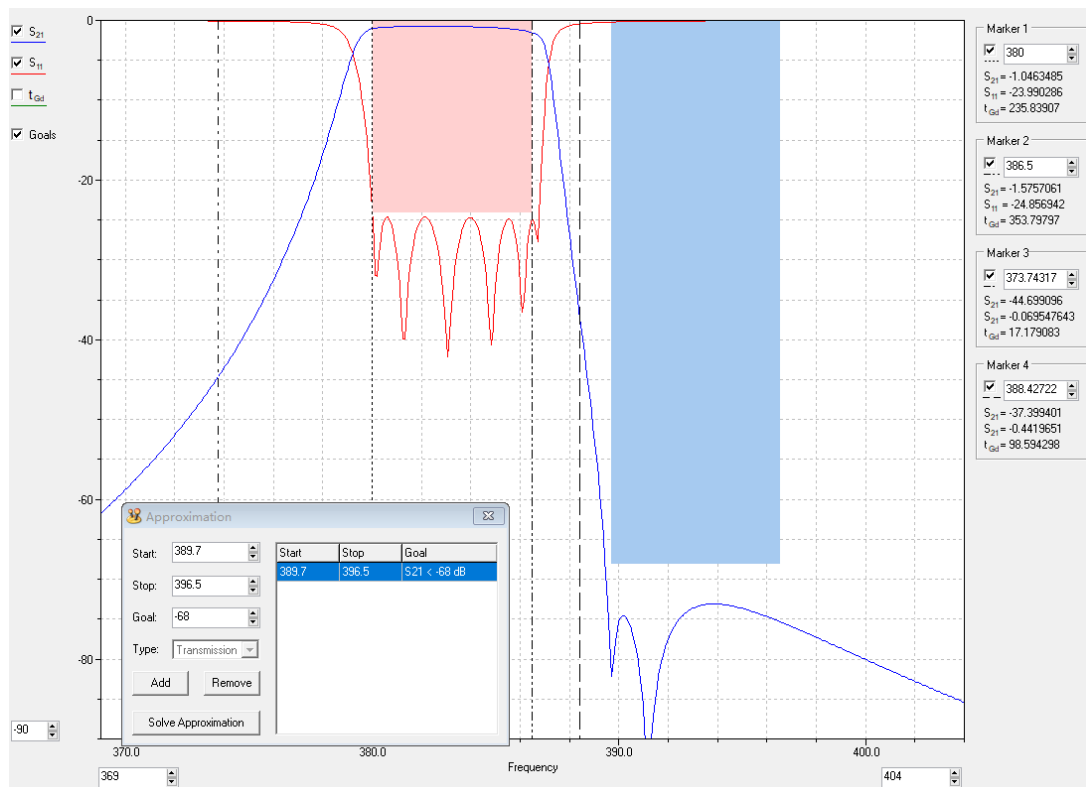


Figure 2 The simulation curve RX

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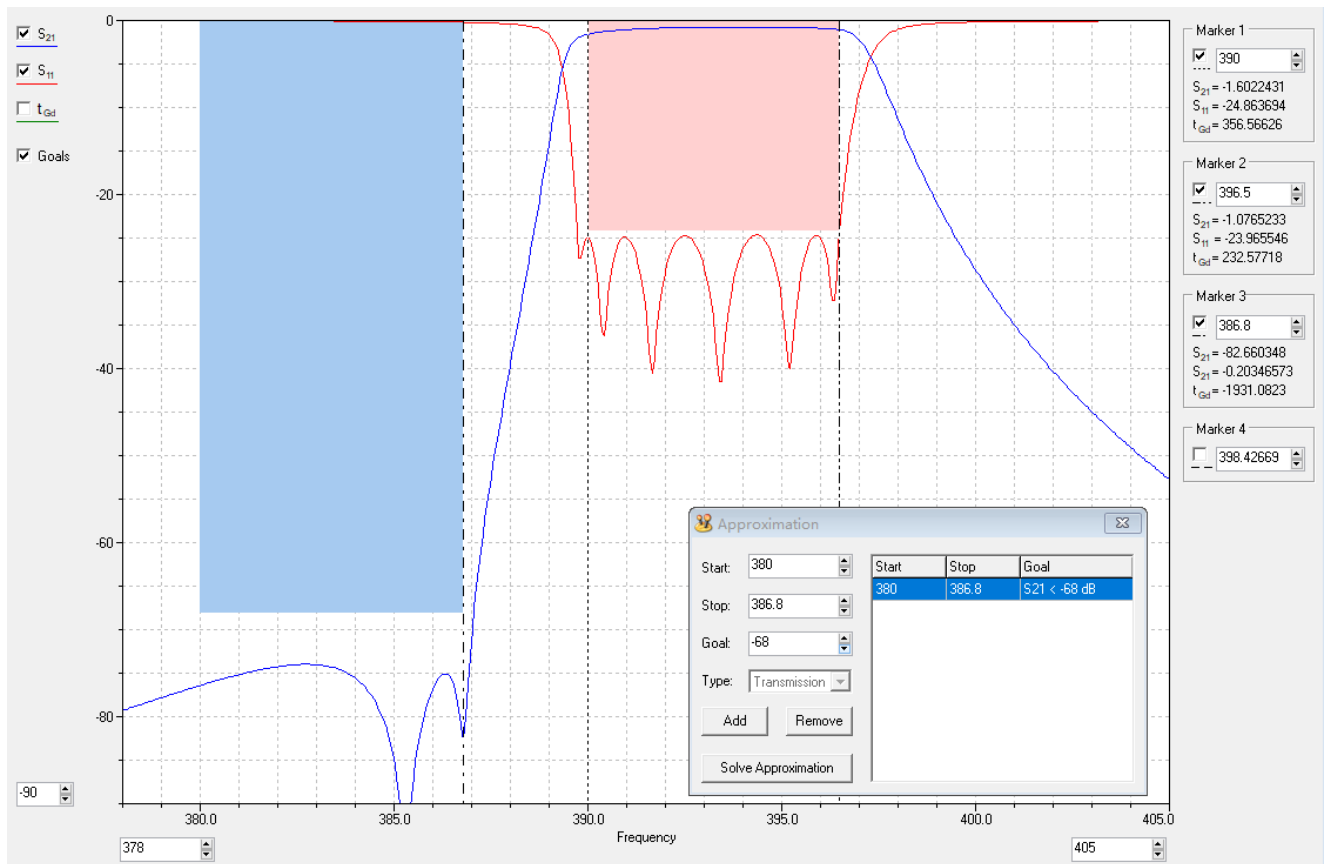


Figure 3 The simulation curve TX

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