

Technical Proposal for JX-CD4-453M467M-70S Cavity Duplexer

Revision History

Version	Date	Author	Revision description	Comment
V1.0	2018/06/07	Lee	Created	/

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1. Mechanical layout

Table 1 Mechanical Specifications @ JX-CD4-453M467M-70S

Dimension	LxWxH: 480mm x 206mm x 143mm (150 mm Max)
Mounting	Refer to drawing
Port connectors	SMA-Female
Finish	Black
Notes	Material shall be RoHS 6/6

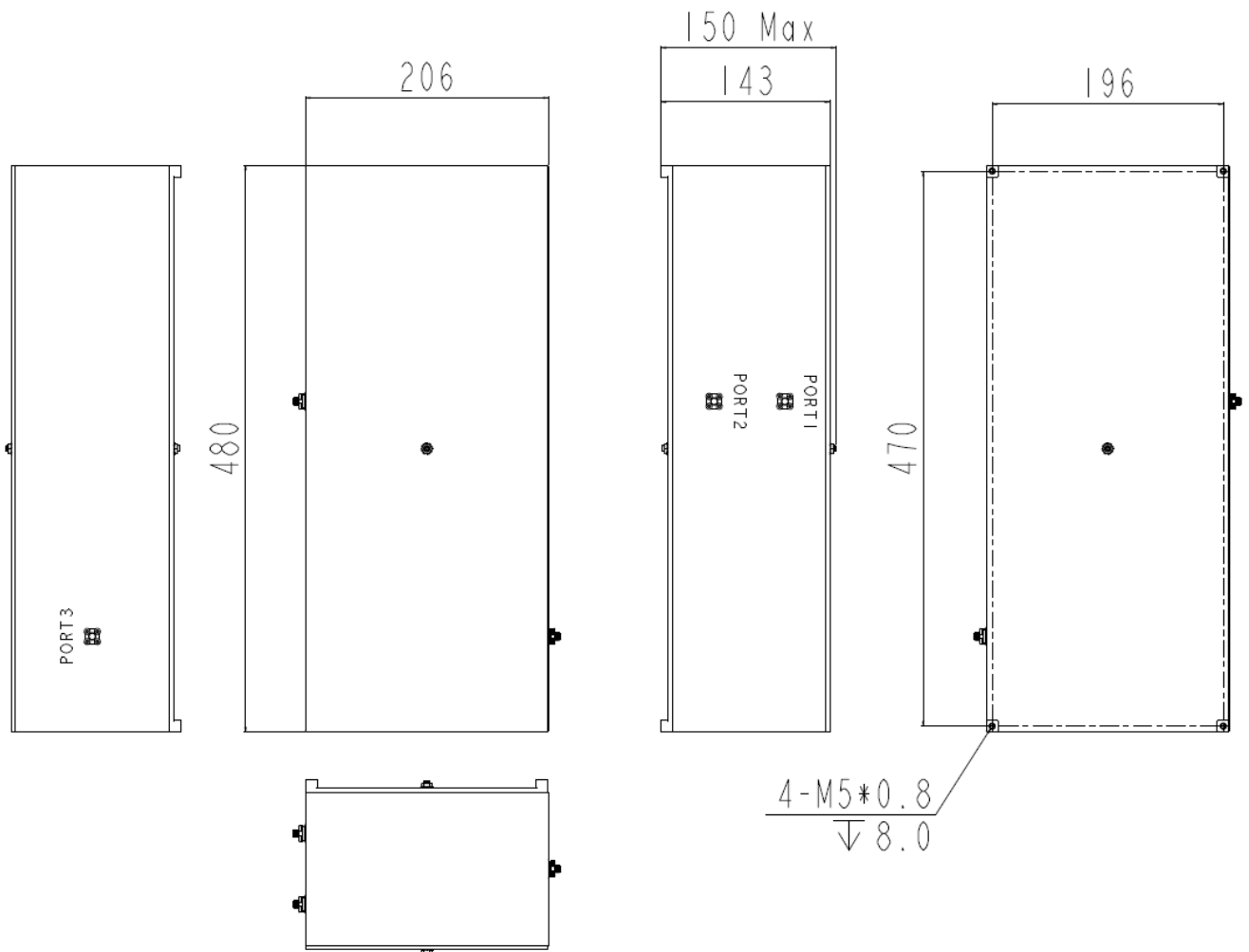


Figure 1 JX-CD4-453M467M-70S front panel layout

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2. Electrical analysis

2.1 Electrical specifications

Table 2 Electrical specifications @ JX-CD4-453M467M-70S

Item	Parameter	PORT 1		PORT 2	
		453-454MHz	460-462MHz	458-459MHz	465-467MHz
1	Frequency Range	453-454MHz	460-462MHz	458-459MHz	465-467MHz
2	Return Loss(Normal temp)	≥18dB	≥18dB	≥18dB	≥18dB
	Return Loss(Full temp)	≥15dB	≥15dB	≥15dB	≥15dB
3	Insertion Loss(Normal temp)	≤3.5dB	≤5.0dB	≤4.5dB	≤3.5dB
	Insertion Loss(Full temp)	≤3.5dB	≤8.0dB	≤7.0dB	≤3.5dB
4	Rejection	≥70dB@458-467MHz	≥60dB@453-459MHz ≥70dB@465-467MHz	≥70dB@453-454MHz ≥70dB@460-467MHz	≥70dB@453-462MHz
5	Isolation	≥60dB			
6	Power Handling	50 W Avg			
7	Impedance	50 Ω			
8	Operating Temperature Range	-20°C to +70°C			

2.2 The simulation curve

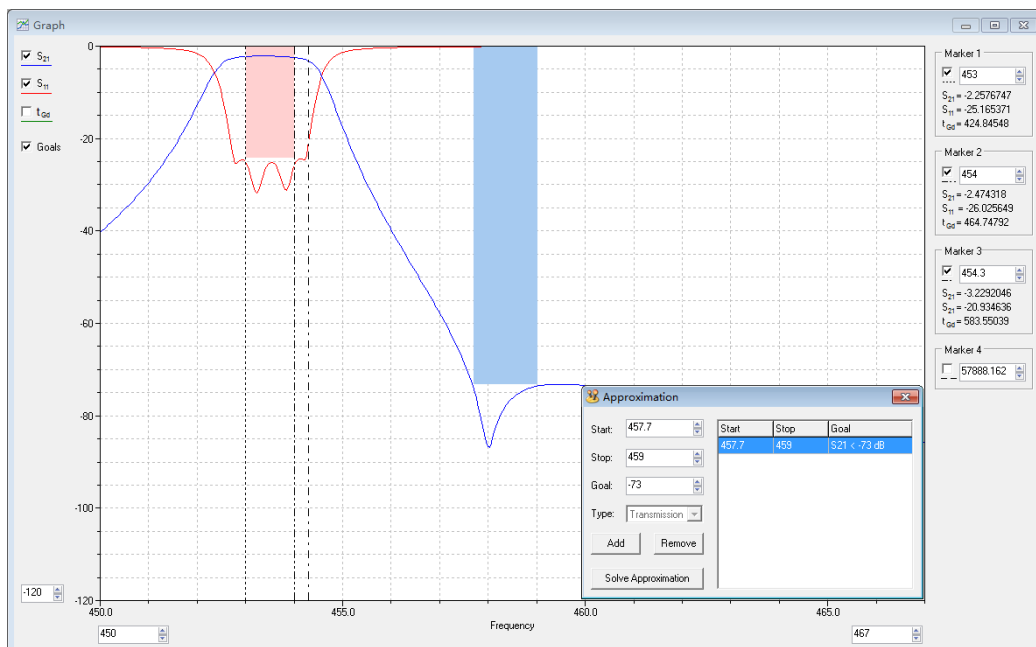


Figure 2 The simulation curve of the 453-454MHz

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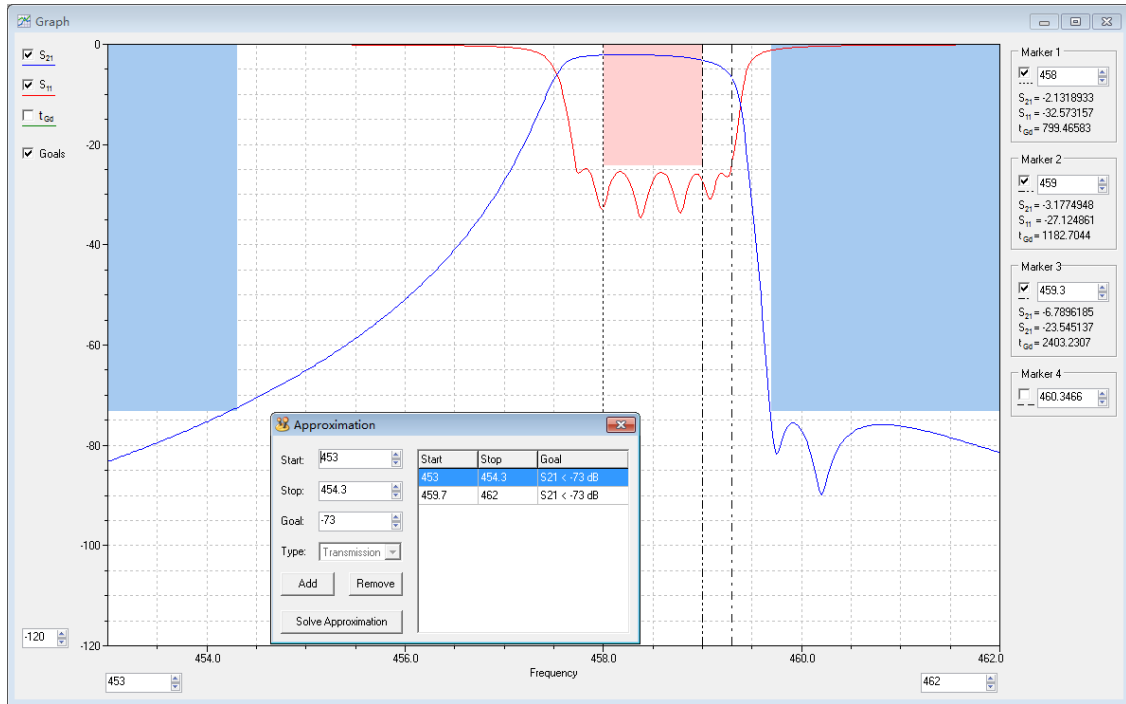


Figure 3 The simulation curve of the 458-459MHz

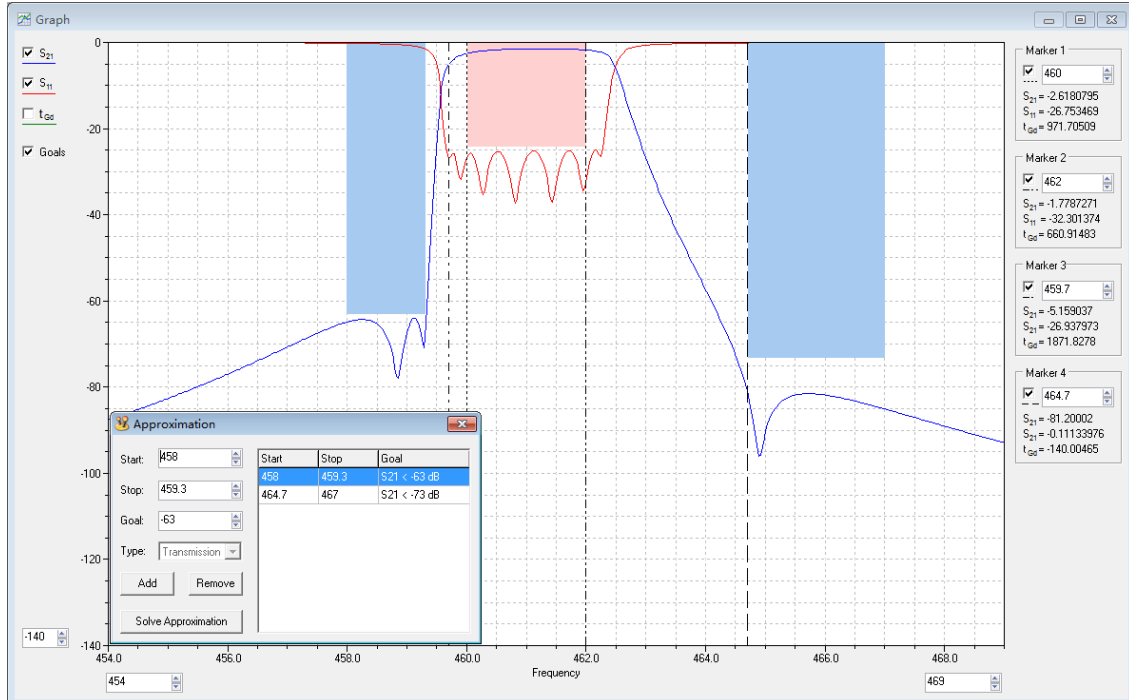


Figure 4 The simulation curve of the 460-462MHz

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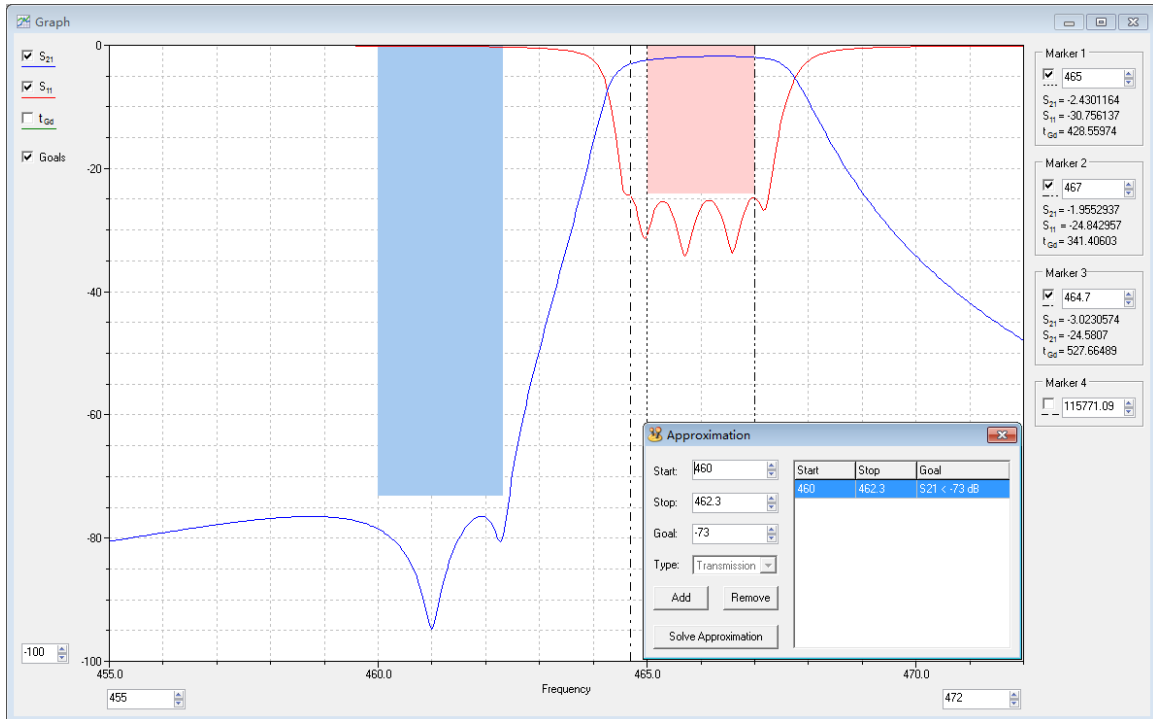


Figure 5 The simulation curve of the 465-467MHz

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