

Technical proposal for JX-CC6-703M2570M-45S Cavity Combiner

- ◆ Low Insertion Loss
- ◆ High Rejection
- ◆ Small Volume
- ◆ High Reliability

Revision History

Version	Date	Author	Revision description	Comment
V1.0	2020/02/21	Lee	Created	/

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1. Mechanical layout

Table 1 Mechanical specifications @ JX-CC6-703M2570M-45S

Dimension	LxWxH: 260mm x 155mm x 36mm (42.0mm Max)
Connectors	SMA-Female
Thread size & Hole callout info	4-M4 deep 10.0mm
Weight	≤1.8kg
Finish	Black (Paint spraying)
Notes	Material shall be RoHS 6/6

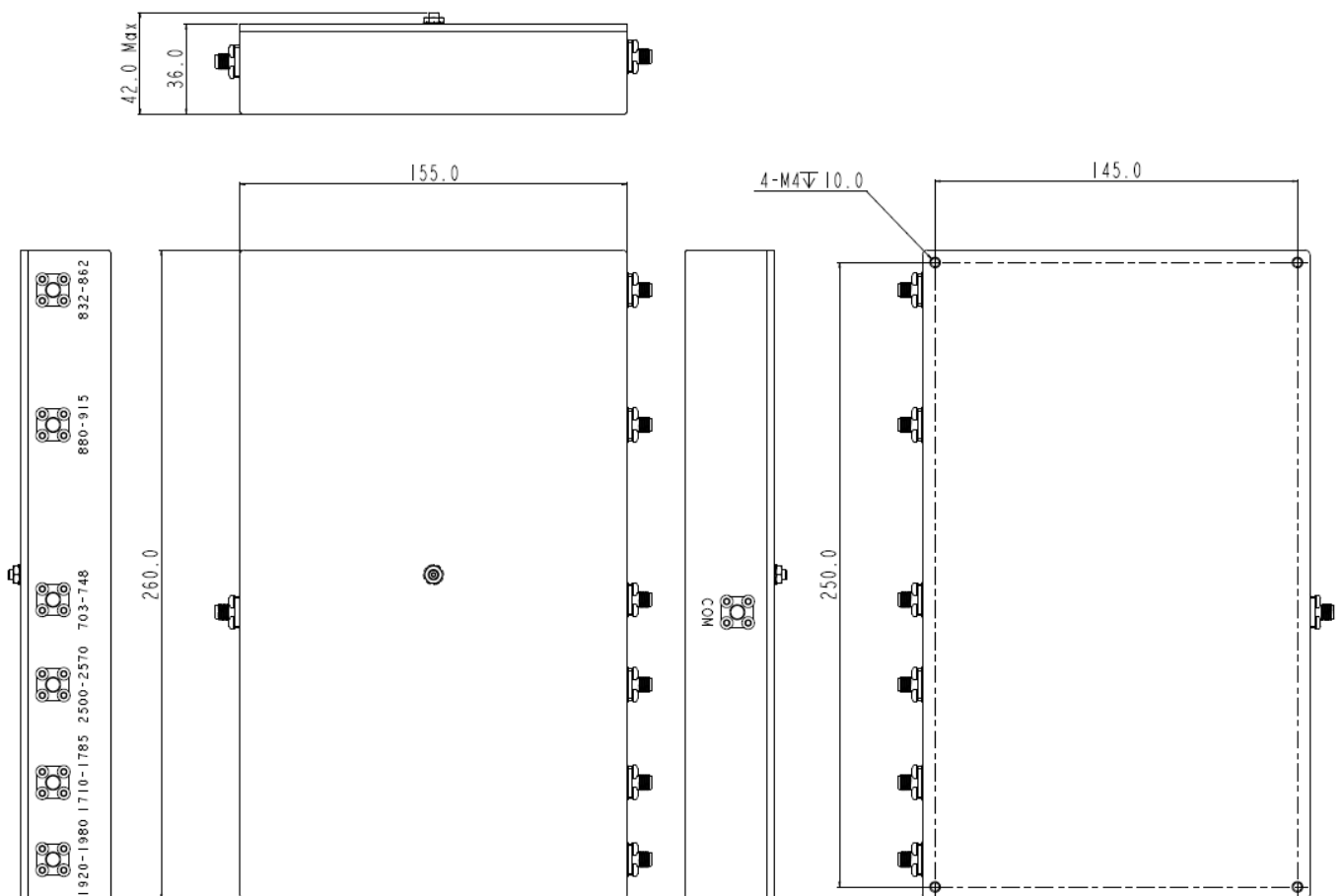


Figure 1 JX-CC6-703M2570M-45S front panel layout

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2. Electrical analysis

2.1 Electrical specifications

Table 2 Electrical specifications @ JX-CC6-703M2570M-45S

Item	Parameter	Specifications					
		703-748 MHz	832-862 MHz	880-915 MHz	1710-1785 MHz	1920-1980 MHz	2500-2570 MHz
1	Frequency range	703-748 MHz	832-862 MHz	880-915 MHz	1710-1785 MHz	1920-1980 MHz	2500-2570 MHz
2	Return loss	≥18dB	≥18dB	≥18dB	≥18dB	≥18dB	≥18dB
3	Insertion loss	≤1.0dB	≤1.0dB	≤1.0dB	≤1.0dB	≤1.0dB	≤1.0dB
4	Ripple	≤0.6dB	≤0.5dB	≤0.5dB	≤0.5dB	≤0.5dB	≤0.5dB
5	Rejection	≥45dB @ 758-821MHz & 925-960MHz & 1805-1880MHz & 2110-2170MHz & 2620-2690MHz					
6	Isolation	≥45dB @ each port					
7	Power	Input (@each port): 15W average Max ; 100W peak Max Output (com port): 90W average Max ; 600W peak Max					
8	Impedance	50 Ω					
9	Temperature range	-40°C to +85°C					

2.2 The simulation curve

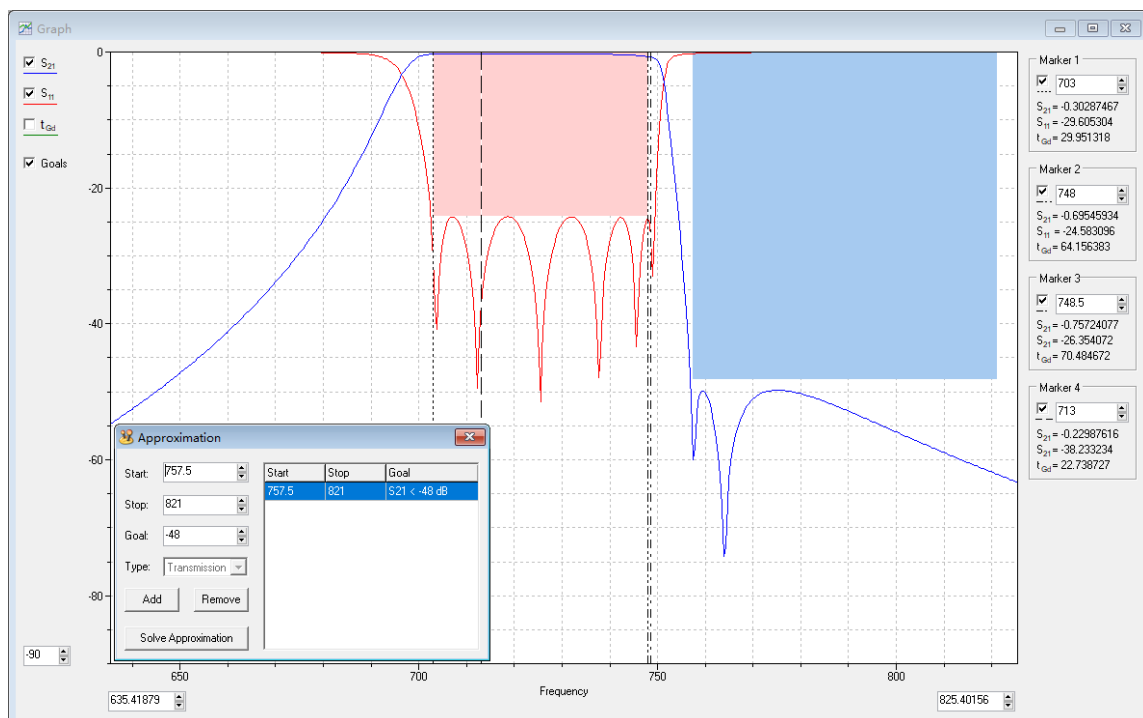


Figure 2 The simulation curve of 703-748MHz

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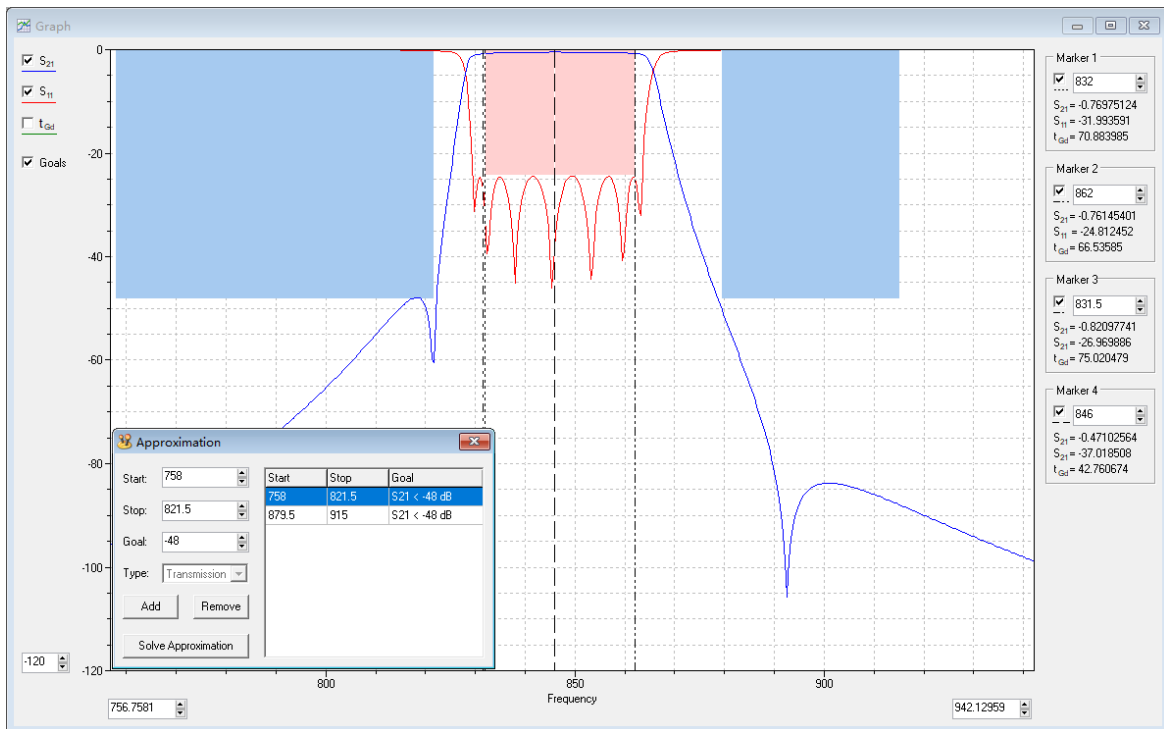


Figure 3 The simulation curve of 832-862MHz

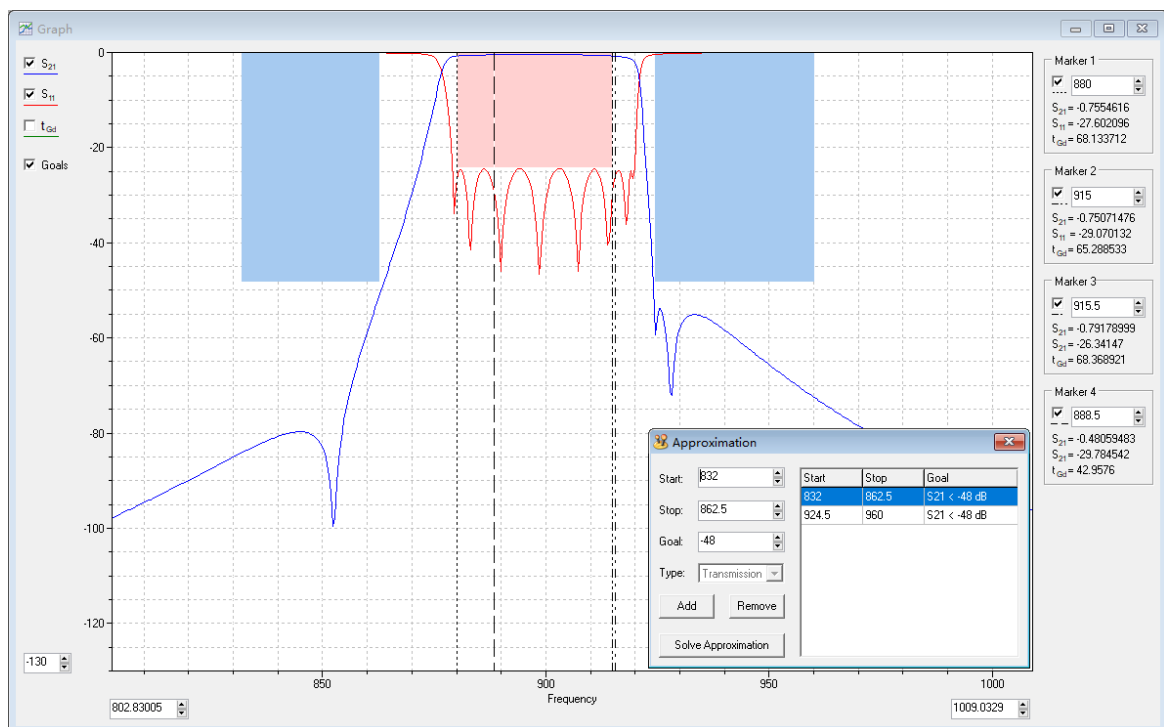


Figure 4 The simulation curve of 880-915MHz

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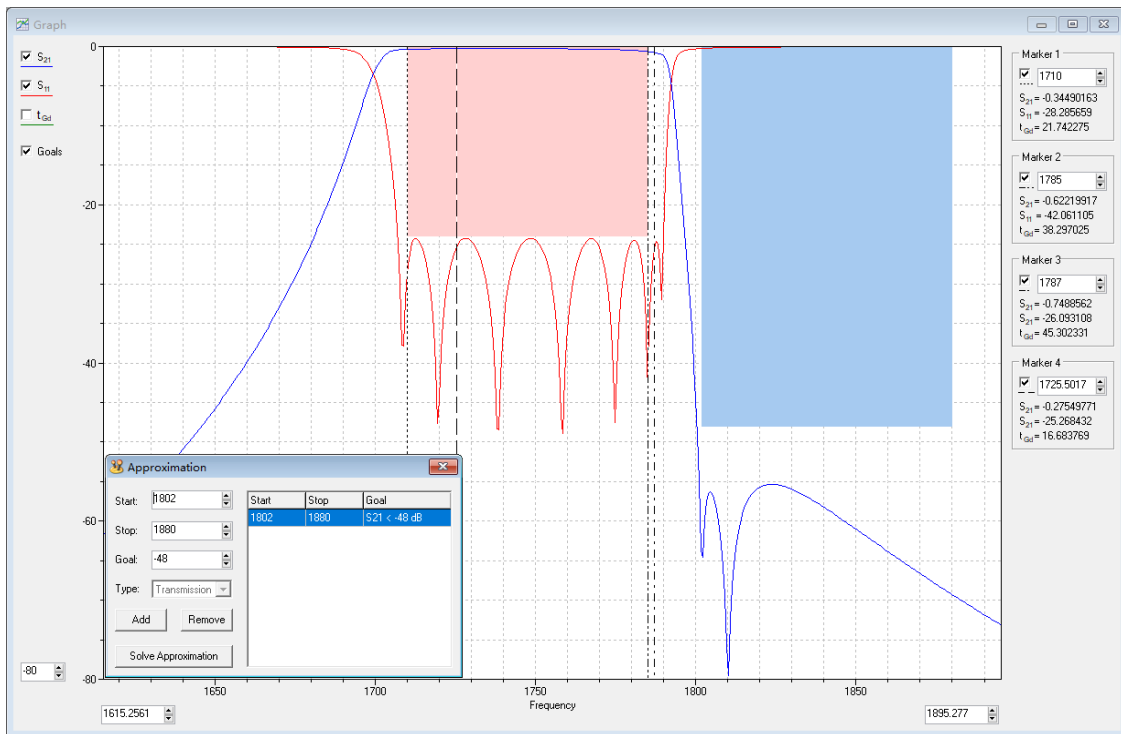


Figure 5 The simulation curve of 1710-1785MHz

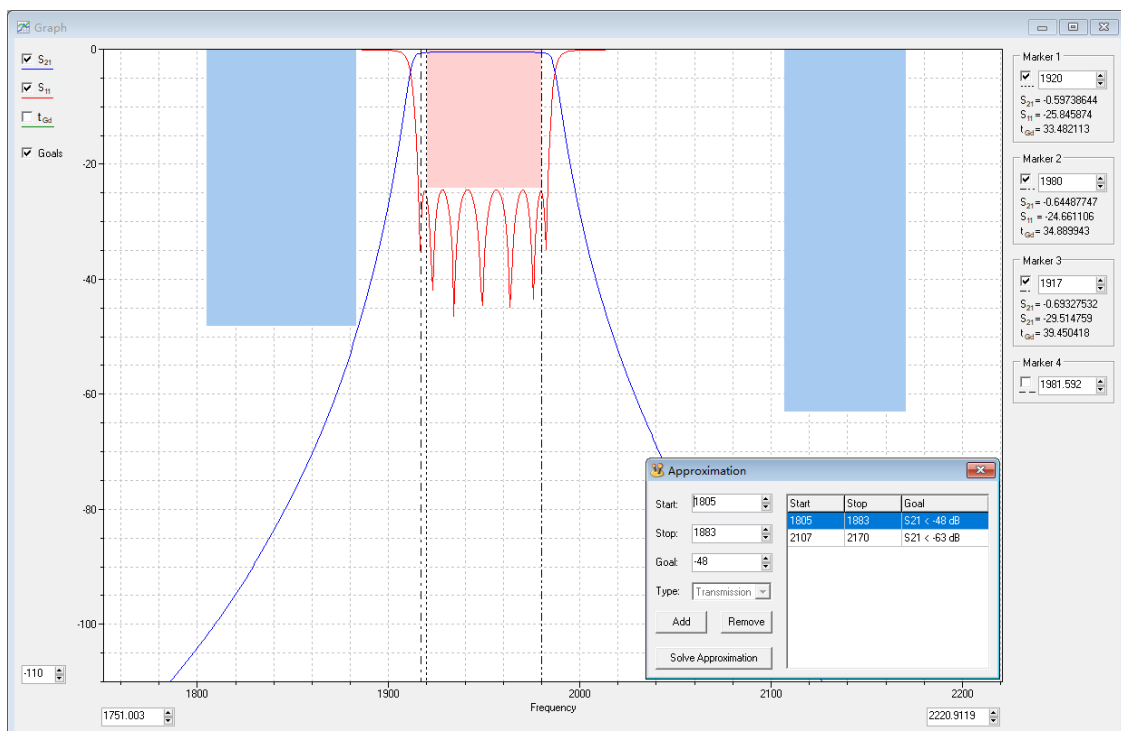


Figure 6 The simulation curve of 1920-1980MHz

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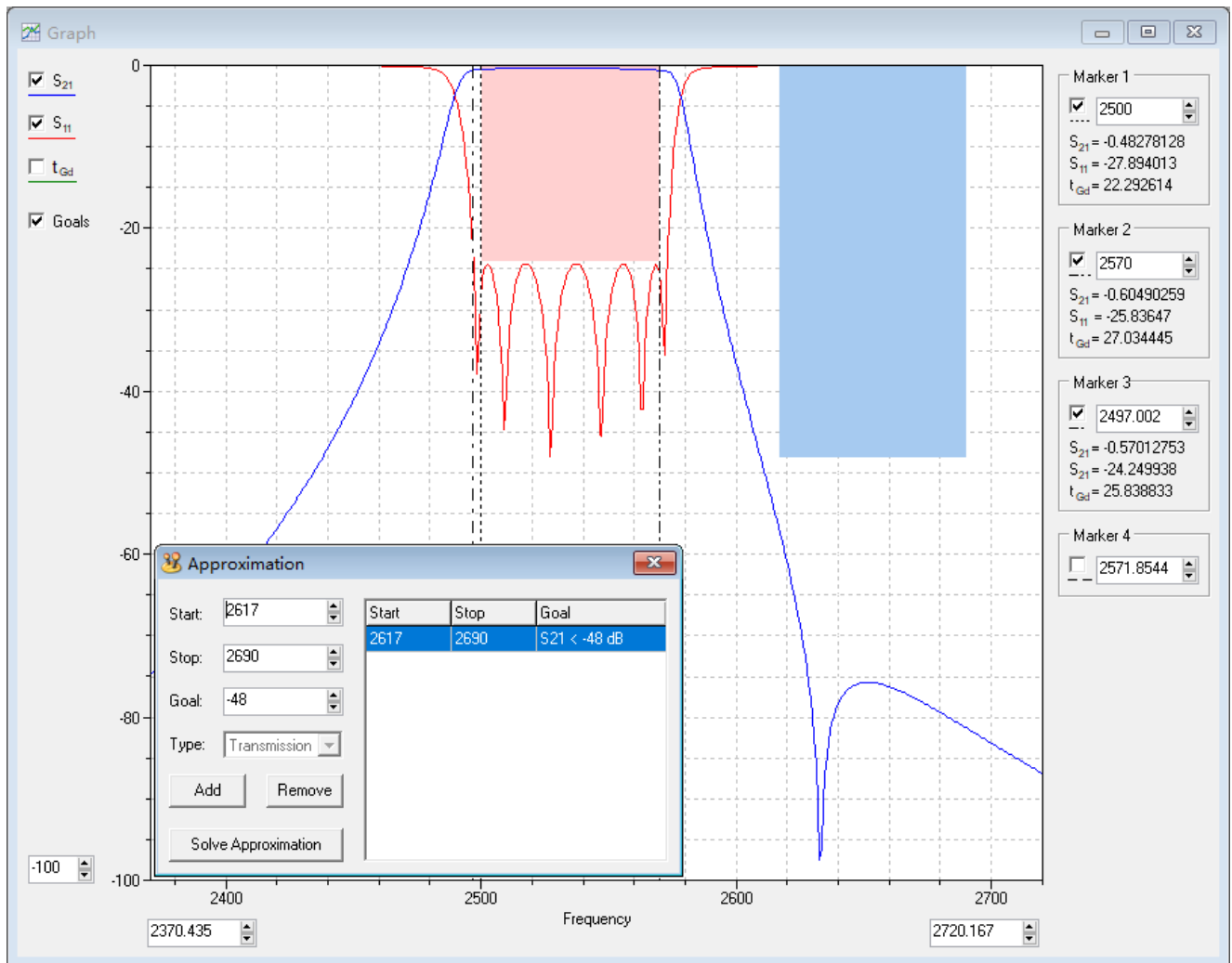


Figure 7 The simulation curve of 2500-2570MHz

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