

# Technical proposal for JX-CF1-5029M9871M-15J Cavity Filter

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

## Revision History

Version	Date	Author	Revision description	Comment
V1.0	2020/01/17	Sam Chen	Created	/

**JING XIN MICROWAVE TECHNOLOGY CO.,LTD**

E-mail: [sales@cdjx-mw.com](mailto:sales@cdjx-mw.com) Web: <http://www.cdjx-mw.com>

TEL: +86-28-85026087 FAX: +86-28-65026087 ext.8033 Zip Code:610045

Add: No.65,West 1st Wu Ke Road, Wu Hou District, Cheng Du City, Si Chuan Province, China.

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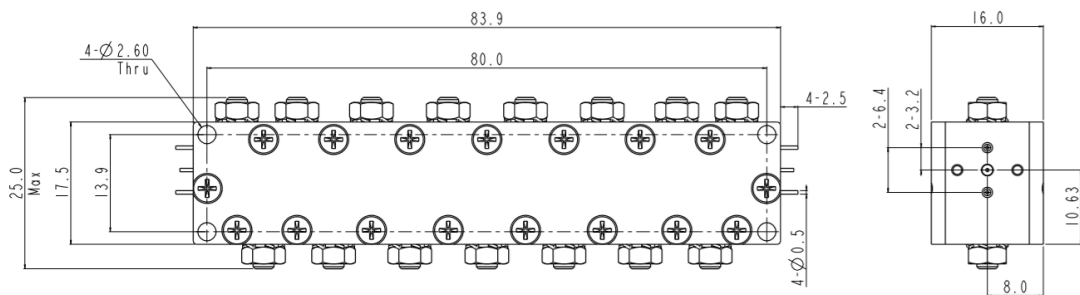
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## 1. Mechanical layout

Table 1 Mechanical specifications @ JX-CF1-5029M9871M-15J

Dimension	LxWxH:83.9mm x 16mm x 17.5mm (25.0 Max)
Port connectors	PIN: $\phi$ 0.49mm*1.9mm or SMA(3.5mm) _Female
Finish	Silver
Vibration	6G rms /axis,10 minutes / axis,3 axes in total
Shock	20G,11ms trailing edge sawtooth wave,3 axes 6 directions,3 times /direction
Notes	Material shall be RoHS 6/6

After removal of connector



3.5mm\_Femlae

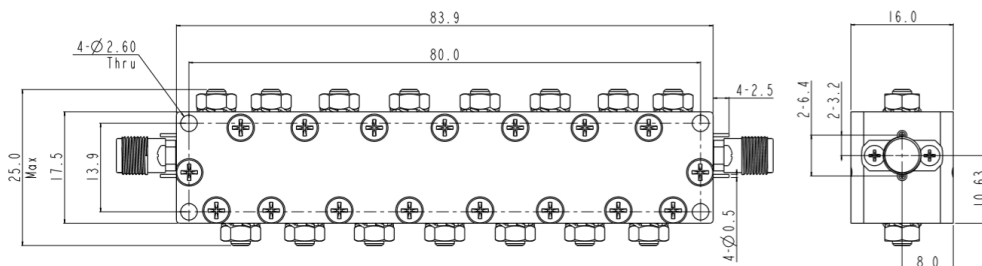


Figure 1 JX-CF1-5029M9871M-15J front panel layout

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## 2. Electrical analysis

### 2.1 Schematic diagram of the Filter

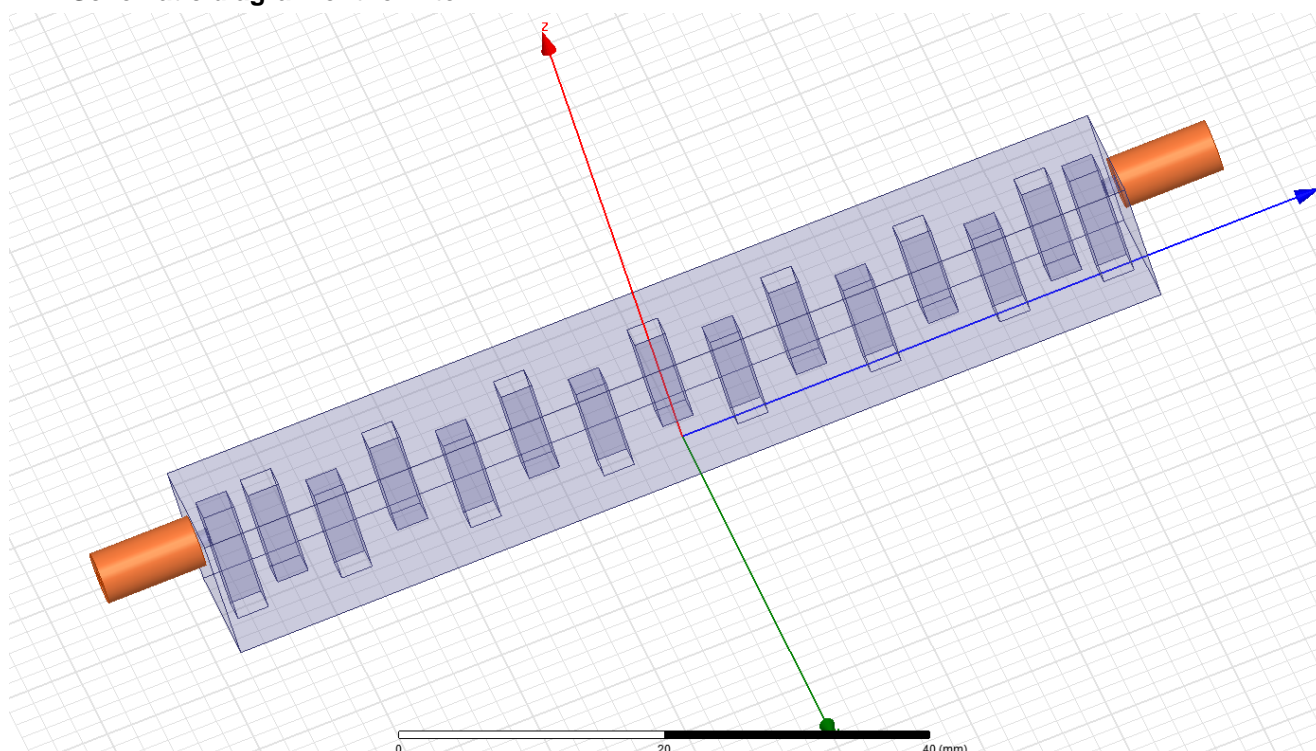


Figure 2 Toplogy of the Filter

### 2.2 Electrical specifications

Table 2 Electrical specifications @ JX-CF1-5029M9871M-15J

Item	Parameter		
1	Frequency range F0	7450 MHz (type 7045.8MHz)	
2	Bandwidth	4841MHz	
3	Return Loss	≥9.5dB	
4	Insertion loss	≤1.7 dB (type ≤1.49 dB)	
5	Rejection	≥157dB@920MHz (type ≤175.15dB)	≥41dB@10800MHz (type ≤46.53dB)
6	Operating temperature range	-40 to +70°C	
7	Max power	30dBm	
8	Impedance	50 Ω	

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2.3 The simulation curve

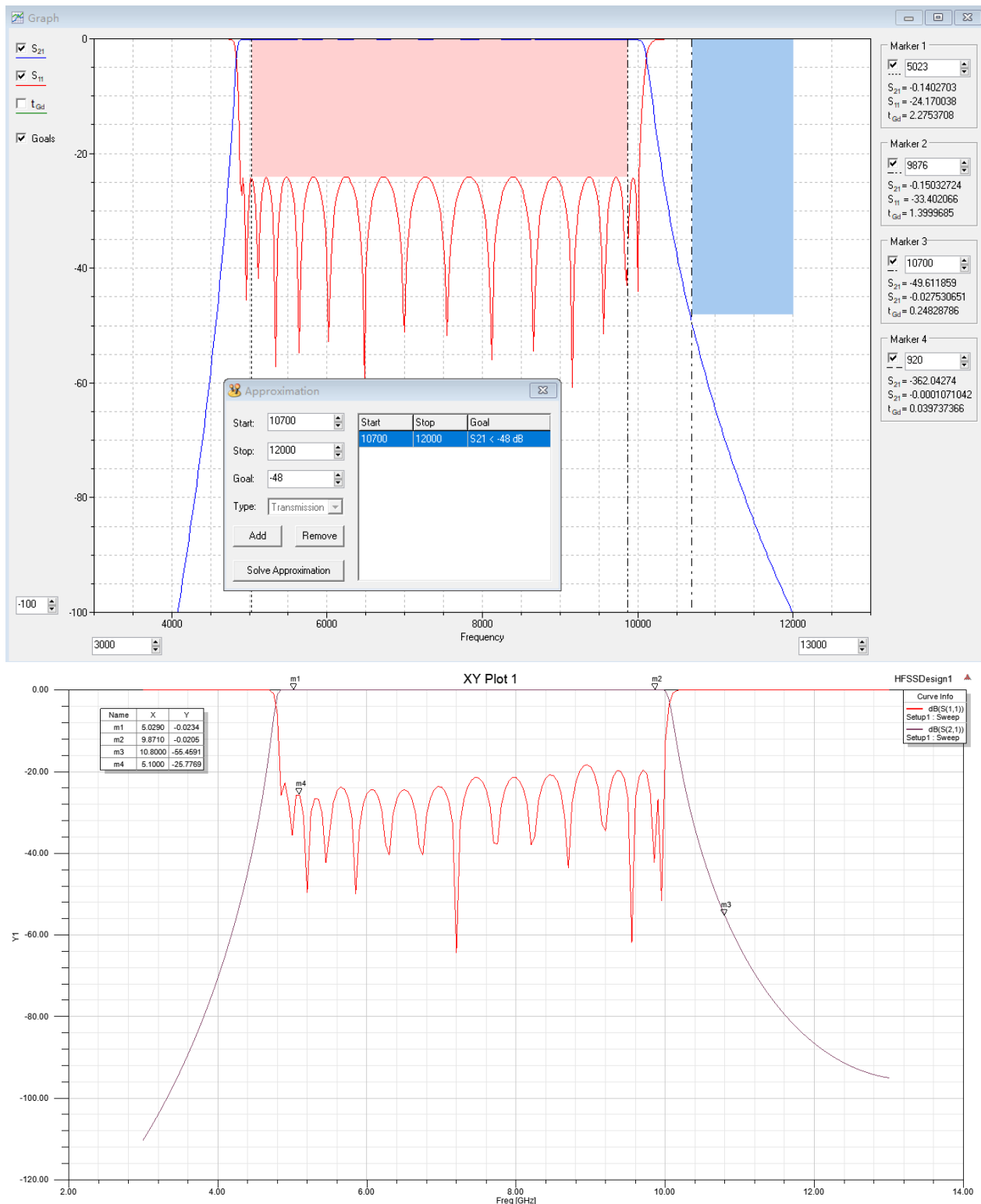


Figure 3 The simulation curve of the Filter

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