

Technical proposal for JX-CF1-15.9G20.1G-50S1 Cavity Filter

- ◆ Low Insertion Loss
- ◆ High Performance
- ◆ Small volume
- ◆ High Reliability

Revision History

| Version | Date | Author | Revision description | Comment |
|---------|------------|--------|------------------------------------------------------------------------------|------------------|
| V1.0 | 2019/02/18 | Lee | Created | / |
| V1.1 | 2019/02/25 | Lee | Updated the size marking of front panel layout and electrical specifications | Customer request |
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1. Mechanical layout

Table 1 Mechanical Specifications @ JX-CF1-15.9G20.1G-50S1

| | |
|-----------------|------------------------------------------|
| Dimension | L x W x H: 39mm (57.8mm) x 18.5mm x 10mm |
| Port connectors | SMA-Female |
| Finish | Sliver |
| Notes | Material shall be RoHS 6/6 |

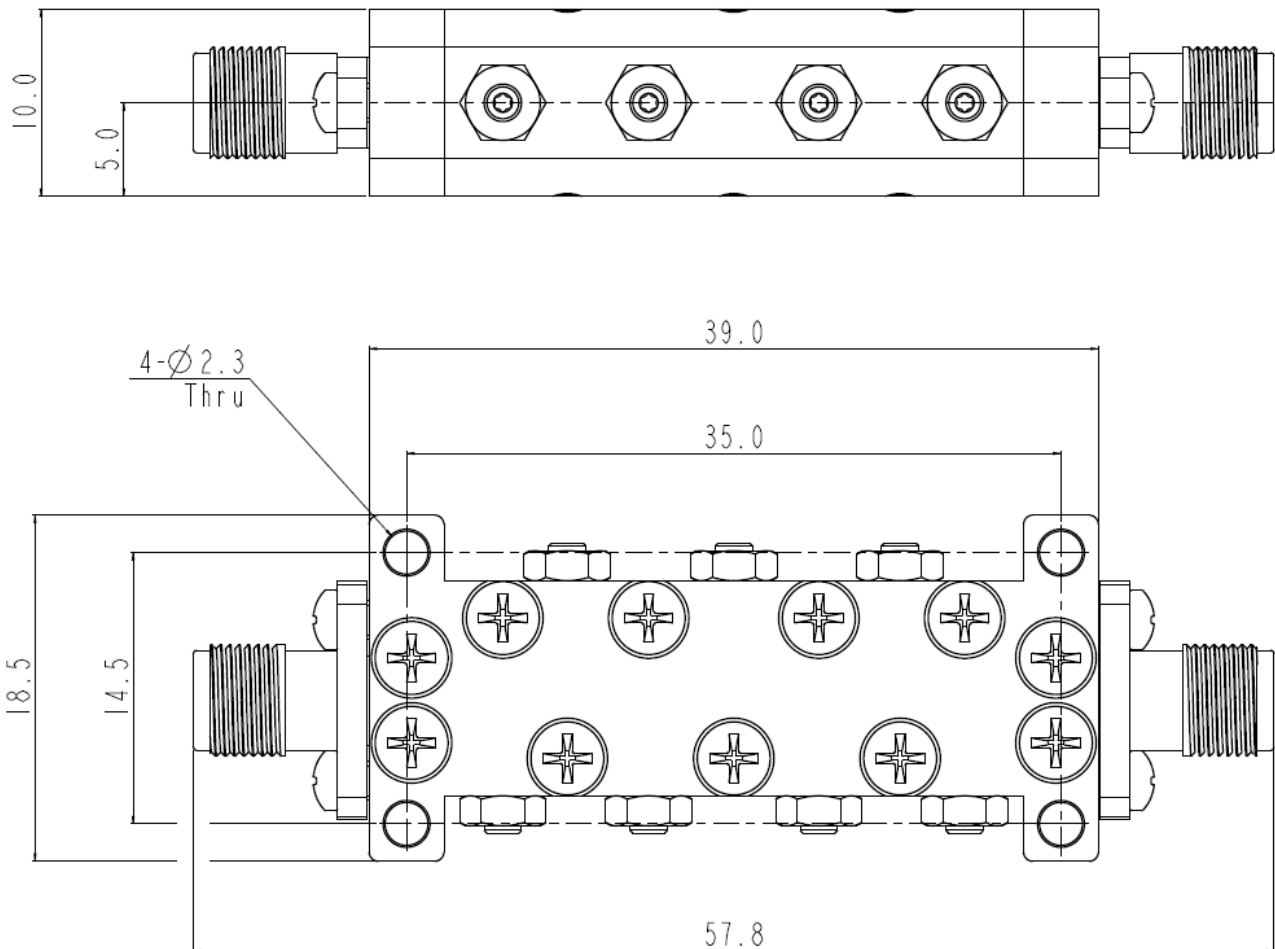


Figure 1 JX-CF1-15.9G20.1G-50S1 front panel layout

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2. Electrical analysis

2.1 Electrical specifications

Table 2 Electrical specifications @ JX-CF1-15.9G20.1G-50S1

| Item | Parameter | spec | |
|------|-----------------------------|-------------------------------|--------------------|
| 1 | Center frequency | 18.0GHz | |
| 2 | VSWR | ≤1.6 @ 3.0GHz BW | |
| 3 | Insertion loss | ≤1.0dB @ 3GHz BW | ≤3.0dB @ 4.2GHz BW |
| 4 | Ripple | ≤1.0dB peak-to-peak @ 3GHz BW | |
| 5 | Deviation from linear phase | ± 6 ° @ 3GHz BW ★ | |
| 6 | Rejection | ≥50dB @ 9.75GHz | ≥50dB @ 24.75GHz |
| 7 | Power | 1W CW | |
| 8 | Impedance | 50 Ω | |

★: In the production process, one of the products will be used as a standard part for debugging

2.2 The simulation curve

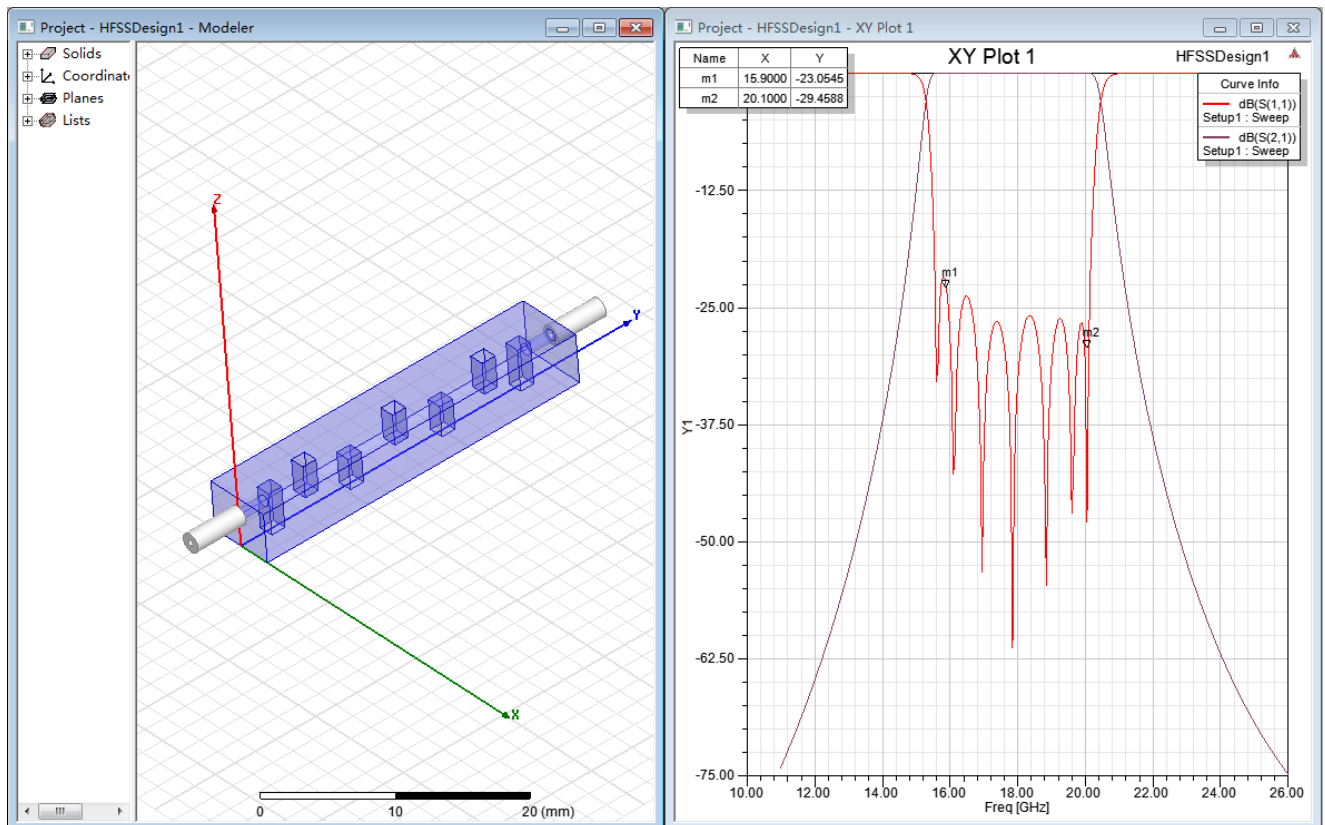


Figure 2 The simulation curve of the filter

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