

Technical Proposal for JX-CC2-BK24-4310FLP Cavity Combiner

- ◆ Inject UHF, TETRA or LMR at existing network sites
- ◆ Guaranteed Low PIM
- ◆ Meets European Rail Standard
EN50155:2001 (Class T1)
- ◆ High Input Isolation
- ◆ High Power Rating
- ◆ RoHS Compliant



Revision History

Version	Date	Author	Revision description	Comment
V1.0	2023/12/18	Lee	Created	/
V1.1	2024/01/19	Lee	Updated the PIM specification @ 900M	JingXin request

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1. Mechanical layout

Table 1 Mechanical specifications @ JX-CC2-BK24-4310FLP

Item	Parameter	Specification
1	Dimension	L x W x H: 7.37 x 5.13 x 1.25 in, [187.2 x 130.4 x 31.8 mm]
2	Port connectors	4.3-10 / Female
3	Housing finish	Customization
		Conductive oxidation of aluminum alloy
		Black spray paint
4	Environmental	IP67
5	Weight	≤1.4kg
6	Notes	Material shall be RoHS 6/6

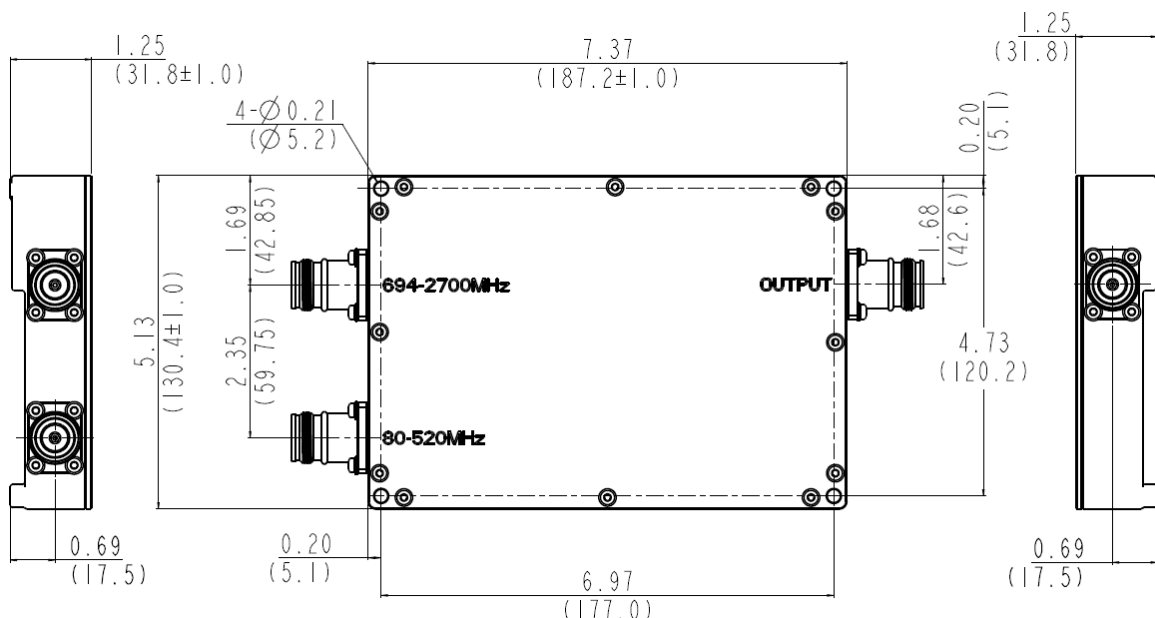


Figure 1 JX-CC2-BK24-4310FLP front panel layout

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2. Electrical analysis

2.1 Electrical specifications

Table 2 Electrical specifications @ JX-CC2-BK24-4310FLP

Item	Parameter	P1	P2
1	Frequency range	80-520MHz	694-2700MHz
2	Return loss	≥16.5dB	≥16.5dB@694-960MHz ≥12.5dB@960-1500MHz ≥16.5dB@1500-2700MHz
3	Insertion loss	≤0.4dB	≤0.6dB
4	PIM	/	≤-155dBc@2*900MHz, +43dBm tones ≤-161dBc@2*1900MHz, +43dBm tones
5	DC pass	3A max	/
6	Isolation		≥50dB@80-520MHz ≥40dB@694-800MHz ≥50dB@800-2500MHz ≥30dB@2500-2700MHz
7	Average power		120W
8	Peak power		3000W
9	Operation temperature range		-35°C to +65°C
10	Impedance		50Ω

2.2 The test curve

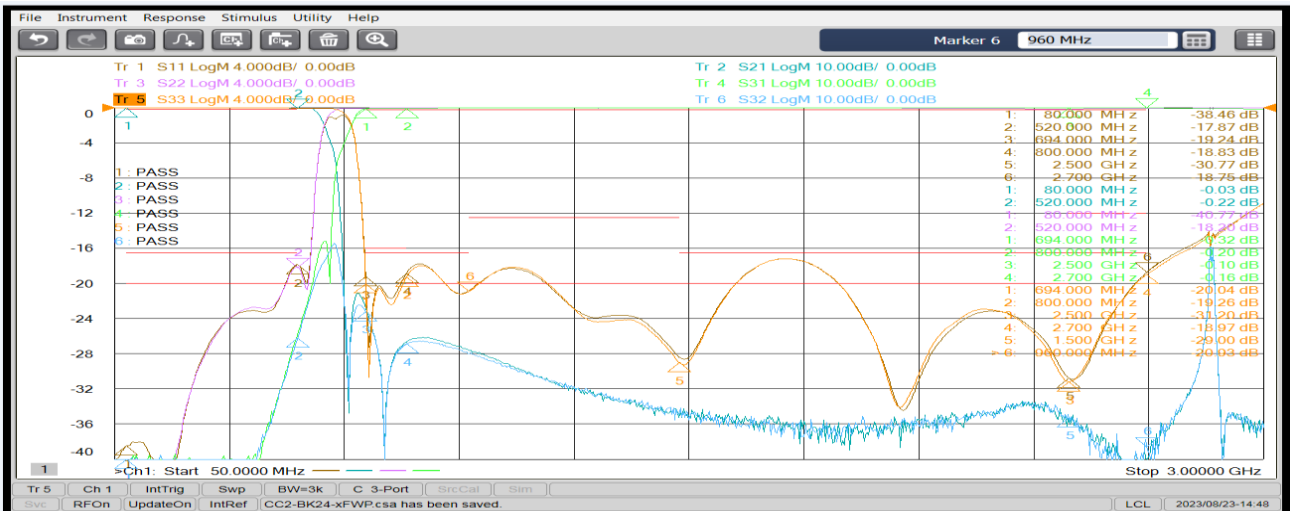


Figure 2 The test curve of the S parameter

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Figure 3 The simulation curve of the PIM @ 900M

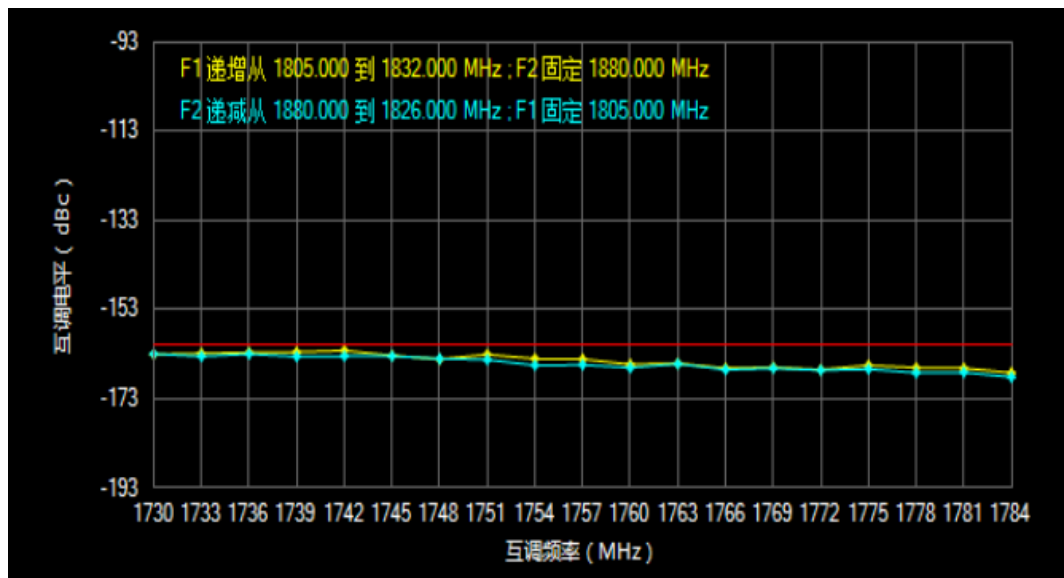


Figure 4 The simulation curve of the PIM @ 1800M

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