

PRODUCT SPECIFICATION FOR INFORMATION

PRELIMINARY SPECIFICATION

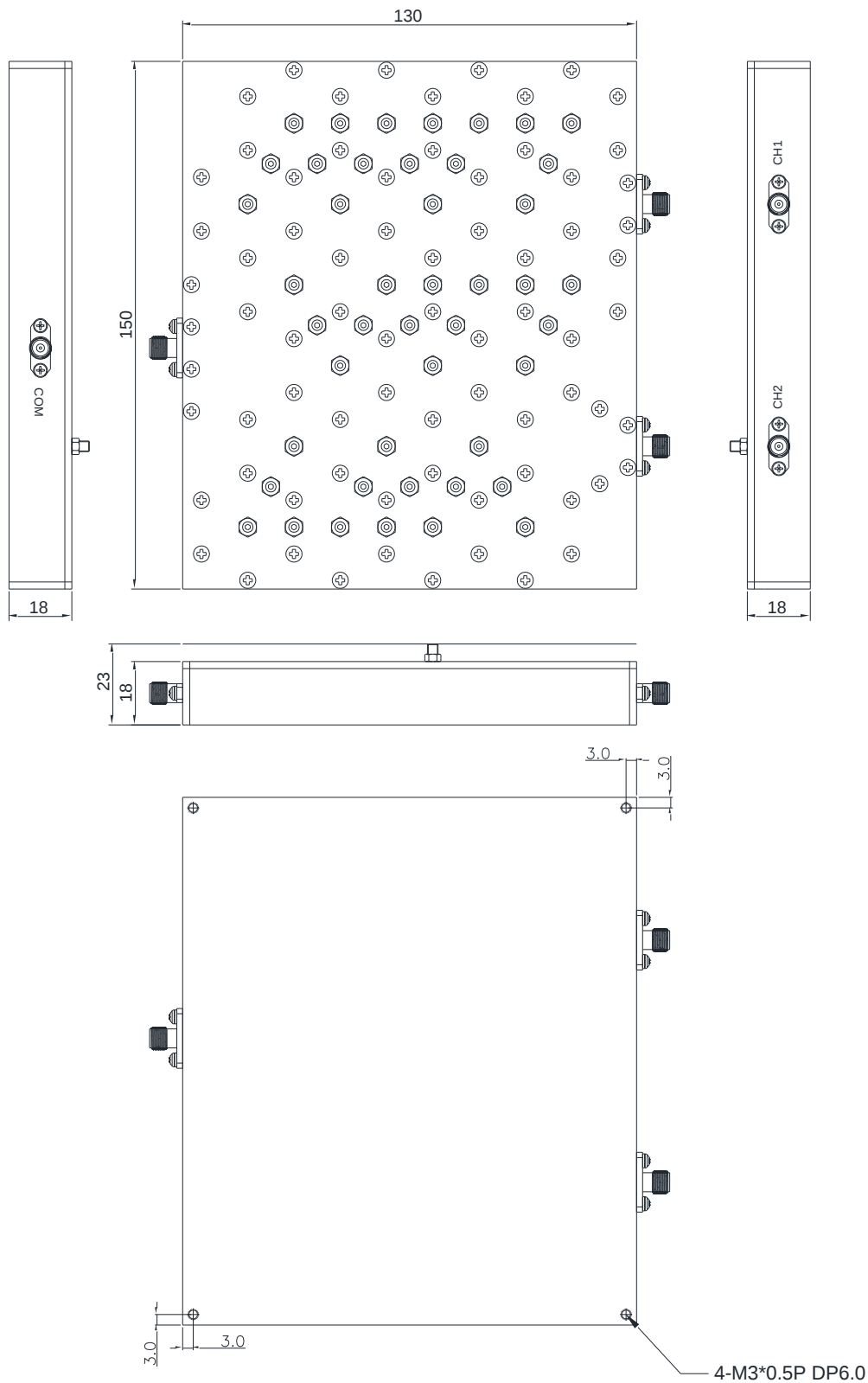
Product Name: Cavity Diplexer

Part No: MDI-C4710_120MS-A-R0

■ History List

No.	Rev. No.	Description	Date	Author	Final Approver
1	R0	Draft	2021.12.28	Bryan Jeon	Michael Jeon

■ Mechanical Drawing



Note

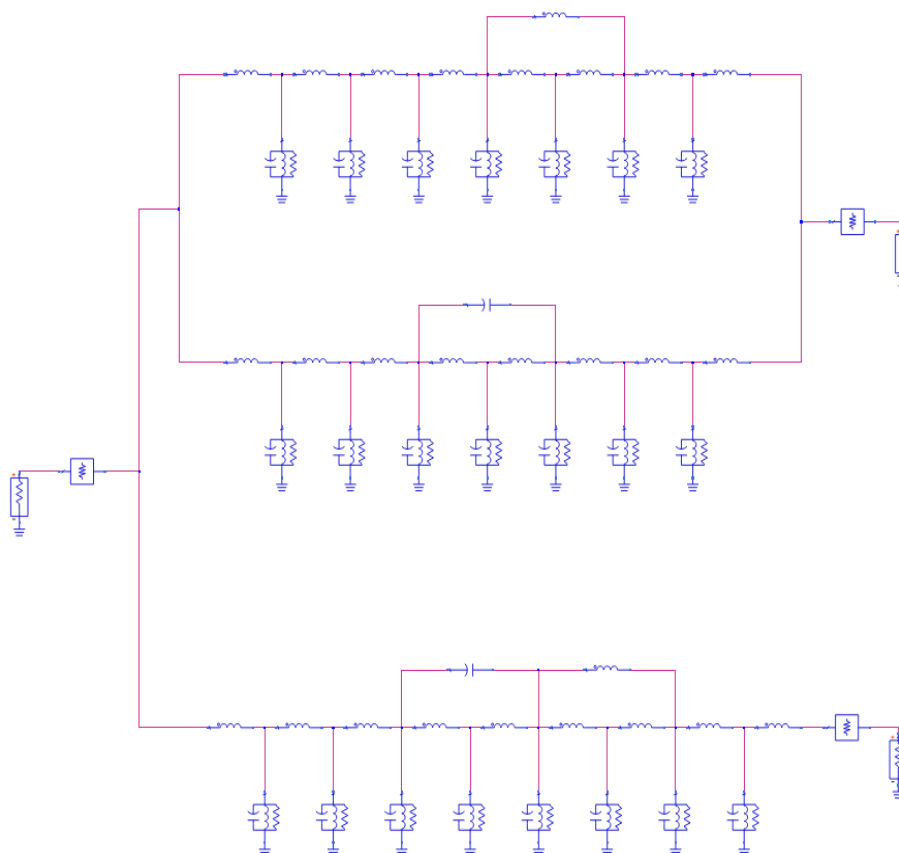
1. Connector: SMA(F)
2. Finish: Black epoxy

■ Electrical Specification

Parameter	Specification		Remark
	TX1&2	RX1	
1. Pass Band Frequency	TX-1 : 4400-4520MHz TX-2 : 4900-5020MHz	4640-4760MHz	
2. Insertion Loss	0.5dB Typ. 0.6dB Max.		
3. Return Loss	20dB Min.		
4. Isolation	80.0dB Min.		
5. Power Handling	30W		
6. In/Out Impedance	50Ω		
7. Operation Temperature	-10°C ~ +60°C		
8. Size	130.0 X 150.0 X 18.0 mm (Without Connector)		

Remarks: This is a preliminary datasheet for reference.

■ Simulation Data



Schematic Block diagram

Insertion loss

A1
freq=4.4000GHz
dB(S(2,1))=-0.3973

A2
freq=4.4375GHz
dB(S(2,1))=-0.3437
Peak

A3
freq=4.5200GHz
dB(S(2,1))=-0.4296

A4
freq=4.9000GHz
dB(S(2,1))=-0.4240

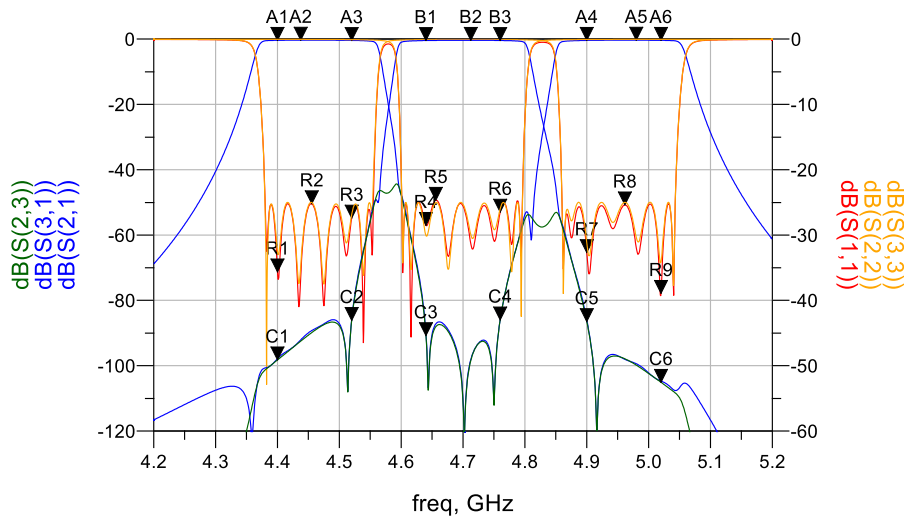
A5
freq=4.9800GHz
dB(S(2,1))=-0.3527
Peak

A6
freq=5.0200GHz
dB(S(2,1))=-0.4016

B1
freq=4.6400GHz
dB(S(3,1))=-0.4615

B2
freq=4.7125GHz
dB(S(3,1))=-0.3880
Max

B3
freq=4.7600GHz
dB(S(3,1))=-0.4585



Isolation

C1
freq=4.4000GHz
dB(S(2,3))=-98.2386

C2
freq=4.5200GHz
dB(S(2,3))=-86.1532

C3
freq=4.6400GHz
dB(S(2,3))=-90.8193

C4
freq=4.7600GHz
dB(S(2,3))=-86.0193

C5
freq=4.9000GHz
dB(S(2,3))=-86.5075

C6
freq=5.0200GHz
dB(S(2,3))=-105.0895

Return loss

R1
freq=4.4000GHz
dB(S(1,1))=-35.6585

R2
freq=4.4555GHz
dB(S(1,1))=-25.2241

R3
freq=4.5200GHz
dB(S(1,1))=-27.3998

R4
freq=4.6400GHz
dB(S(1,1))=-28.5206

R5
freq=4.6560GHz
dB(S(1,1))=-24.6808

R6
freq=4.7600GHz
dB(S(1,1))=-26.5125

R7
freq=4.9000GHz
dB(S(1,1))=-32.6887

R8
freq=4.9615GHz
dB(S(1,1))=-25.3965

R9
freq=5.0200GHz
dB(S(1,1))=-38.9193

Simulation Curve