

PRODUCT SPECIFICATION FOR INFORMATION

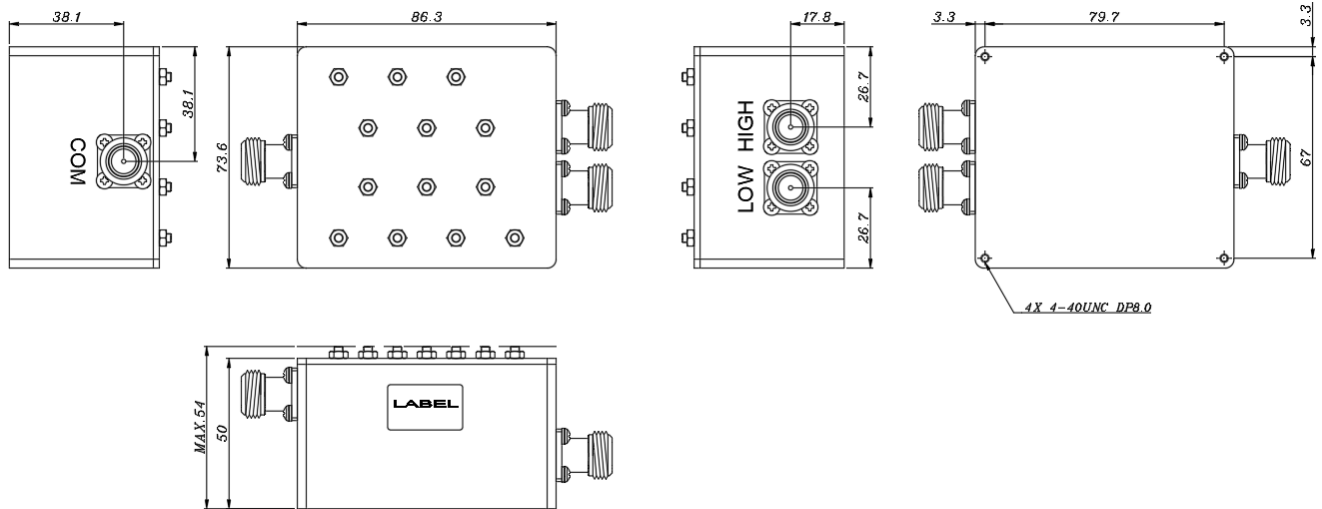
PRELIMINARY SPECIFICATION

Product Name : Cavity Diplexer

Part No : MDI-C718-C773_30M-30MN-A-R1

.	Rev. No.	Description	Date	Author	Final Approver
1	R0	First Draft	2024.05.29	Jeffrey Chung	Michael Jeon
2	R1	Change to Spec., Mechanical Drawing	2024.06.05	Jeffrey Chung	Michael Jeon

■ Mechanical Drawing



■ Electrical Specification

Item	Specification		Remark
	TX(HIGH)	RX(LOW)	
1. Center Frequency	773 MHz	718 MHz	OK
2. Pass Band Frequency	$f_0 \pm 15 [758 \sim 788] \text{ MHz}$	$f_0 \pm 15 [703 \sim 733] \text{ MHz}$	OK
3. Insertion Loss	1.3 dB Max.	1.3 dB Max.	OK
4. Return Loss	16dB Min. (VSWR 1:1.4)		OK
5. Pass Band Ripple	0.5dB Max, (peak to peak)		TBD
6. Attenuation	60dB min, .65dB typ. @DC~733MHz	60dB min, .65dB typ @DC~680MHz	OK
	60dB min, .65dB typ @825~3000MHz	60dB min, .65dB typ @750~3000MHz	OK
7. In/Out Impedance	50 Ω		OK
8. TX Continuous Power (CW)	10 W		OK
9. Temperature Range	-20°C ~ +65°C		OK
10. Dimension [WxDxH]	86.3 x 73.6 x 50.0 [mm]		TBD
11. Connector	N(f)		OK
12. Finish	Epoxy Gray		OK

■ Simulation Data

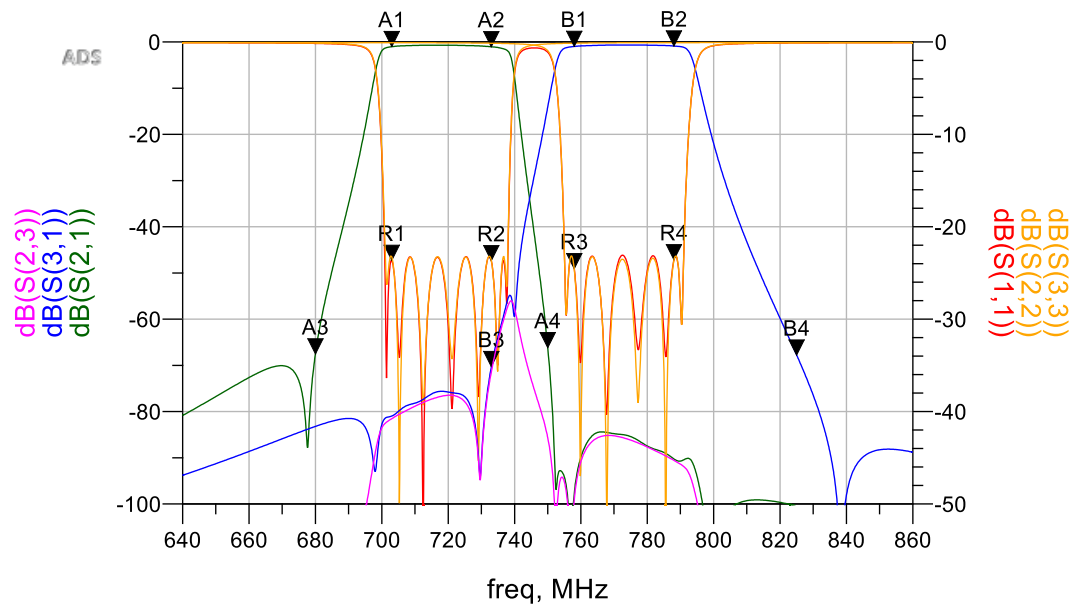
Insertion loss

A1
freq=703.00MHz
dB(S(2,1))=-1.0283

A2
freq=733.00MHz
dB(S(2,1))=-1.0479

B1
freq=758.00MHz
dB(S(3,1))=-0.9800

B2
freq=788.00MHz
dB(S(3,1))=-0.8845



Rejection

A3
freq=680.00MHz
dB(S(2,1))=-67.5254

A4
freq=750.00MHz
dB(S(2,1))=-66.1860

B3
freq=733.00MHz
dB(S(3,1))=-70.2937

B4
freq=825.00MHz
dB(S(3,1))=-67.7909

Return loss

R1
freq=703.00MHz
dB(S(1,1))=-23.6502

R2
freq=733.00MHz
dB(S(1,1))=-23.6867

R3
freq=758.00MHz
dB(S(1,1))=-24.5528

R4
freq=788.00MHz
dB(S(1,1))=-23.5868