

PRODUCT SPECIFICATION FOR INFORMATION

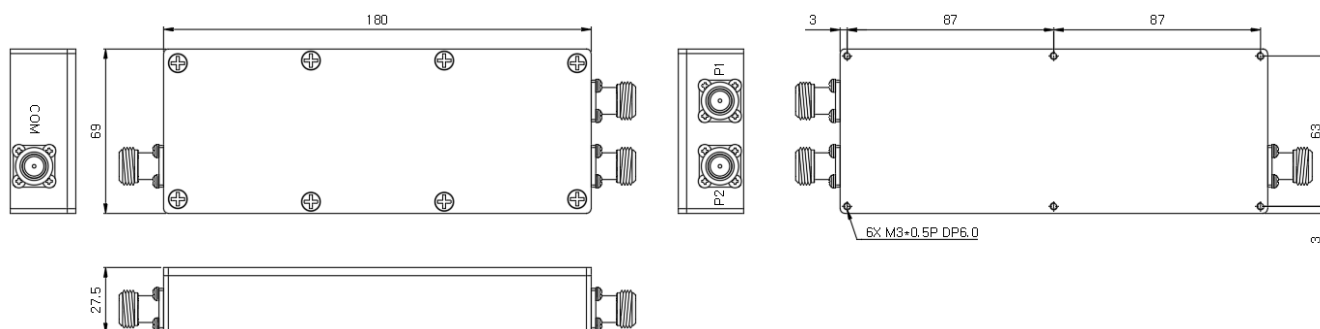
PRELIMINARY SPECIFICATION

Product Name : Diplexer

Part No : MDI-C750-C4150_500M-3700MN-A-R0

No	Rev. No.	Description	Date	Author	Final Approver
1	R0	First Draft	2024.12.04	Jeffrey Chung	Michael Jeon

■ Mechanical Drawing



■ Electrical Specification

Item	Specification		Remark
	Port 1	Port 2	
1. Center Frequency	750 MHz	4150 MHz	OK
2. Pass Band Frequency	$f_0 \pm 250 [500 \sim 1000] \text{ MHz}$	$f_0 \pm 1850 [2300 \sim 6000] \text{ MHz}$	OK
3. Insertion Loss	0.4 dB Max.	0.5 dB Max.	Proposal
4. Return Loss	19dB Min.	15dB Min.	Proposal
5. Isolation Between Bands	50dB min.		OK
6. In/Out Impedance	50 Ω		OK
7. Power	300W	100W	OK
8. Operating Temperature	$-32^\circ\text{C} \sim +49^\circ\text{C}$		OK
9. Storage Temperature	$-40^\circ\text{C} \sim +85^\circ\text{C}$		OK
10. Dimension [WxDxH]	180.0 x 69.0 x 27.5 [mm]		Proposal
11. Connector	N(F)		OK
12. Application	Outdoor (IP67)		OK
13. Finish	Black Paint		OK

※ It is subjected to change the spec with prior notice

■ Simulation Data

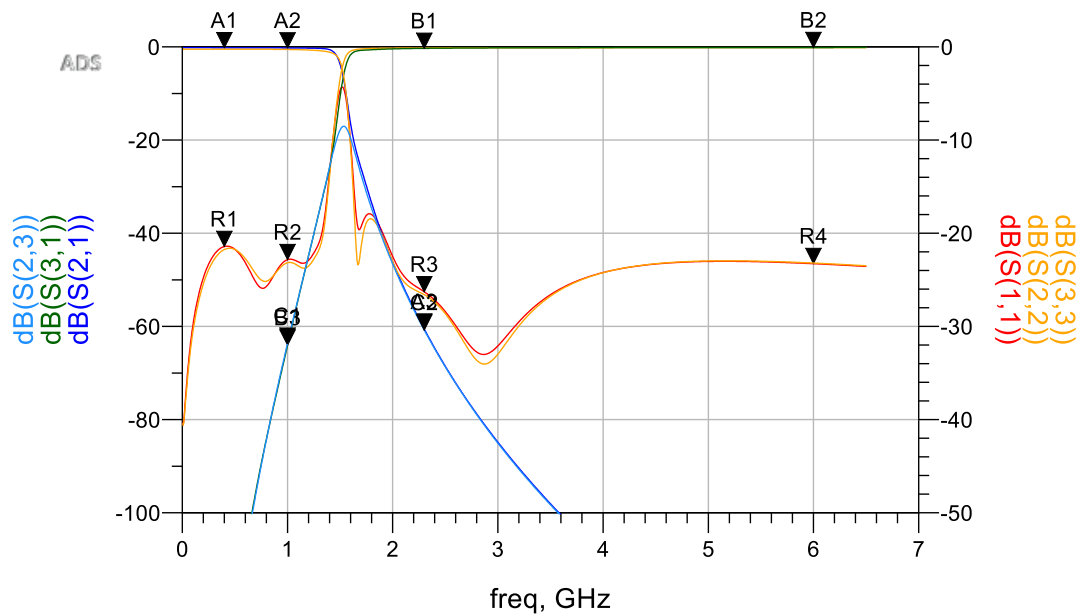
Insertion loss
[dB]

A1
freq=400.0MHz
dB(S(2,1))=-0.202

A2
freq=1.000GHz
dB(S(2,1))=-0.240

B1
freq=2.300GHz
dB(S(3,1))=-0.327

B2
freq=6.000GHz
dB(S(3,1))=-0.150



Isolation [dB]

A3
freq=2.300GHz
dB(S(2,1))=-60.575

B3
freq=1.000GHz
dB(S(3,1))=-64.054

C1
freq=1.000GHz
dB(S(2,3))=-63.620

C2
freq=2.300GHz
dB(S(2,3))=-60.790

Return loss
[dB]

R1
freq=400.0MHz
dB(S(1,1))=-21.429

R2
freq=1.000GHz
dB(S(1,1))=-22.837

R3
freq=2.300GHz
dB(S(1,1))=-26.284

R4
freq=6.000GHz
dB(S(1,1))=-23.271