

PRODUCT SPECIFICATION FOR INFORMATION

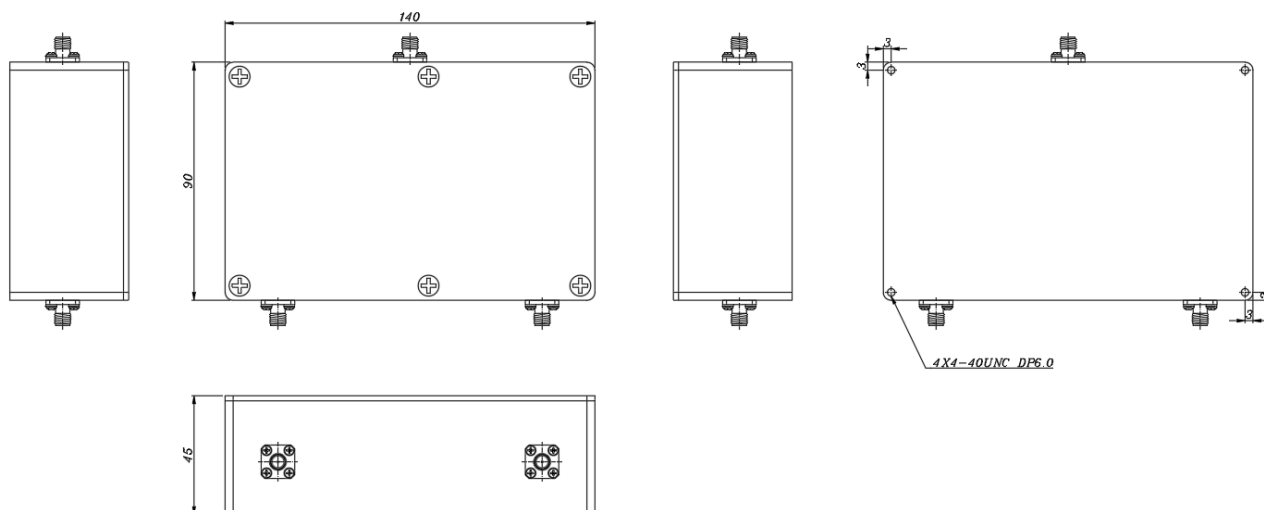
PRELIMINARY SPECIFICATION

Product Name : Diplexer

Part No : MDI-C898.5-C932.5_7M-5MS-A-R0

.	Rev. No.	Description	Date	Author	Final Approver
1	R0	First Draft	2024.02.06	Jeffrey Chung	Michael Jeon

■ Mechanical Drawing



■ Electrical Specification

Item	Specification		Remark
	RX	TX	
1. Center Frequency	898.5 MHz	932.5 MHz	OK
2. Pass Band Frequency	$f_0 \pm 3.5 [895 \sim 902] \text{ MHz}$	$f_0 \pm 2.5 [930 \sim 935] \text{ MHz}$	OK
3. Insertion Loss	2.0 dB Max.	1.5 dB Max.	OK
4. Return Loss	15.6dB Min. (VSWR 1:1.4)		OK
5. Attenuation	70dB min. @10~700MHz	85dB min. @10~902MHz	OK
	40dB min. @883MHz	80dB min. @1000~2600MHz	OK
	85dB min. @930~2600MHz	-	OK
6. In/Out Impedance	50 Ω		OK
7. TX Continuous Power	20 W		OK
8. Temperature Range	-10°C ~ +70°C		OK
9. Dimension [WxDxH]	140.0x90.0x45.0 [mm]		OK
10. Connector	SMA(f)		OK
11. Relative Humidity	10% ~ 95%		OK
12. Random vibration	MIL-STD-810 F Method 514.5 procedure C1		OK
13. Dust	MIL-STD-810 F Method 510.4 procedure 3		OK
14. Waterproof	IP66		OK
15. Finish	Black Epoxy Coating		OK

■ Simulation Data

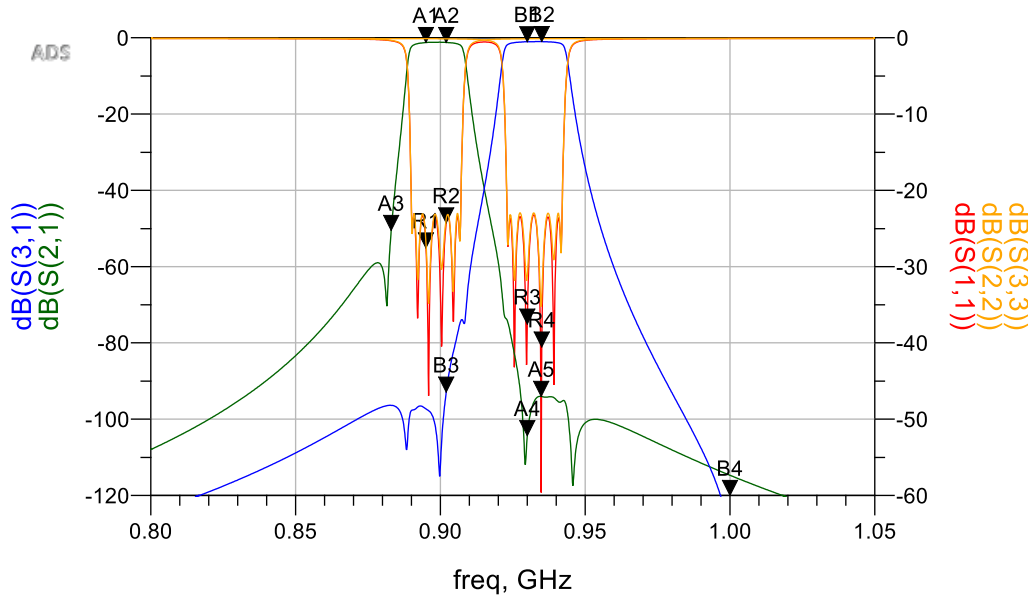
Insertion loss

A1
freq=895.00MHz
dB(S(2,1))=-1.2728

A2
freq=902.00MHz
dB(S(2,1))=-1.2503

B1
freq=930.00MHz
dB(S(3,1))=-1.0520

B2
freq=935.00MHz
dB(S(3,1))=-1.0277



Rejection

A3
freq=883.00MHz
dB(S(2,1))=-50.5221

A4
freq=930.00MHz
dB(S(2,1))=-104.3561

A5
freq=934.80MHz
dB(S(2,1))=-94.0461

B3
freq=902.00MHz
dB(S(3,1))=-92.9419

B4
freq=1.0000GHz
dB(S(3,1))=-130.9891

Return loss

R1
freq=895.00MHz
dB(S(1,1))=-27.5647

R2
freq=902.00MHz
dB(S(1,1))=-24.2705

R3
freq=930.00MHz
dB(S(1,1))=-37.5516

R4
freq=935.00MHz
dB(S(1,1))=-40.5354