

PRODUCT SPECIFICATION FOR INFORMATION

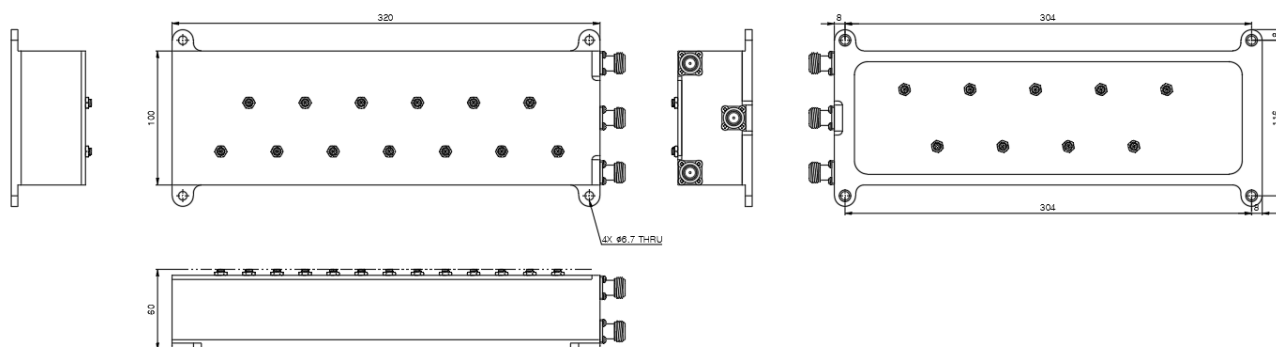
PRELIMINARY SPECIFICATION

Product Name : Diplexer

Part No : MDI-C1405-C2445_510M-90MN-A-R0

.	Rev. No.	Description	Date	Author	Final Approver
1	R0	First Draft	2024.09.27	Jeffrey Chung	Michael Jeon

■ Mechanical Drawing



■ Electrical Specification

Item	Specification		Remark
	Band1	Band2	
1. Center Frequency	1405 MHz	2445 MHz	OK
2. Pass Band Frequency	$f_0 \pm 255$ [1150~1660] MHz	$f_0 \pm 45$ [2400~2490] MHz	OK
3. Insertion Loss	0.5 dB Max.	0.55 dB Max.	Proposal
4. Return Loss	18dB Min.		OK
5. Attenuation	70dB min. @DC~1000MHz	80dB min. @DC~2280MHz	OK
	60dB min. @1000~1100MHz	70dB min. @2280~2350MHz	OK
	60dB min. @1700~1800MHz	70dB min. @2540~2610MHz	OK
	70dB min. @1800~3000MHz	80dB min. @2610~3000MHz	OK
	30dB min. @3000~6000MHz	30dB min. @3000~6000MHz	OK
6. In/Out Impedance	50 Ω		OK
7. Power	Each 300 W		OK
8. Operating Temperature	-15°C ~ +54°C		OK
9. Dimension [WxDxH]	320.0x100.0x60.0 [mm]		Proposal
10. Connector	N(F)		OK
11. Weight	3Kg Max.		OK
12. Finish	olive green with shining tint number 24084		TBD

■ Simulation Data

Insertion loss

A1
freq=1.1500GHz
dB(S(2,1))=-0.3152

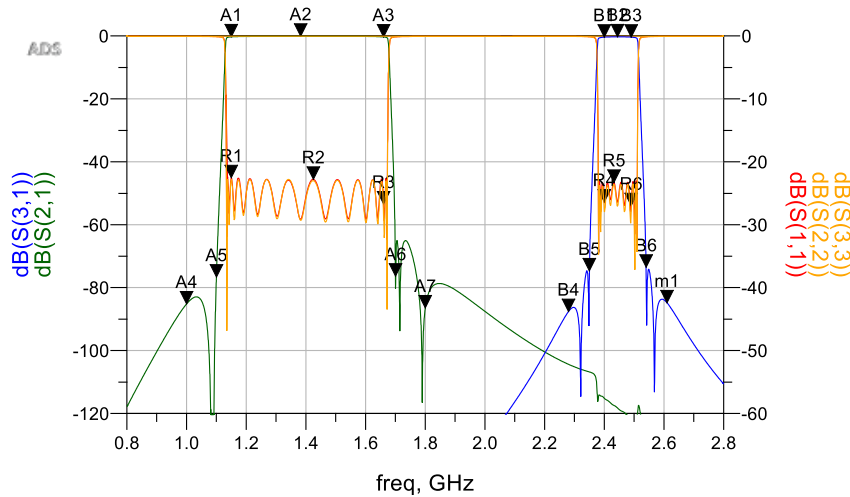
A2
freq=1.3822GHz
dB(S(2,1))=-0.1252
Max

A3
freq=1.6600GHz
dB(S(2,1))=-0.3398

B1
freq=2.4000GHz
dB(S(3,1))=-0.3969

B2
freq=2.4441GHz
dB(S(3,1))=-0.3060
Max

B3
freq=2.4900GHz
dB(S(3,1))=-0.3964



Rejection

A4
freq=1.0000GHz
dB(S(2,1))=-85.1999

B4
freq=2.2800GHz
dB(S(3,1))=-87.6123

A5
freq=1.1000GHz
dB(S(2,1))=-76.6493

B5
freq=2.3500GHz
dB(S(3,1))=-74.6582

A6
freq=1.7000GHz
dB(S(2,1))=-76.3425

B6
freq=2.5400GHz
dB(S(3,1))=-73.4996

A7
freq=1.8000GHz
dB(S(2,1))=-86.4393

m1
freq=2.6100GHz
dB(S(3,1))=-84.8184

Return loss

R1
freq=1.1500GHz
dB(S(1,1))=-22.5464

R2
freq=1.4250GHz
dB(S(1,1))=-22.7948

R3
freq=1.6600GHz
dB(S(1,1))=-26.6980

R4
freq=2.4000GHz
dB(S(1,1))=-26.3956

R5
freq=2.4325GHz
dB(S(1,1))=-23.2763

R6
freq=2.4900GHz
dB(S(1,1))=-26.9878