

PRODUCT SPECIFICATION FOR INFORMATION

PRELIMINARY SPECIFICATION

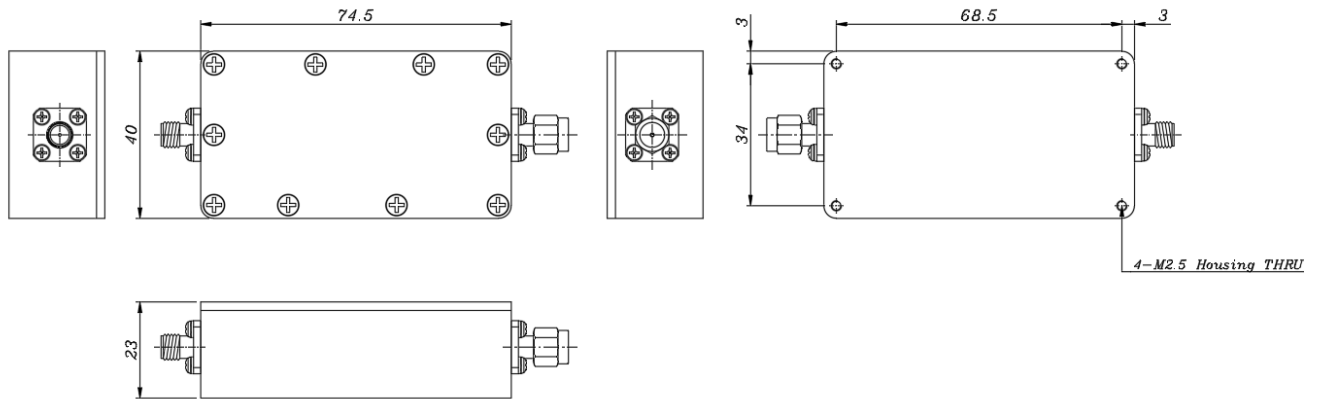
Product Name : Cavity Band Pass Filter

Part No : MBP-C4975_250MS-A-R2

■ History List

No.	Rev. No.	Description	Date	Author	Final Approver
1	R0	Draft	2023.04.21	Jeffrey Chung	Michael Jeon
2	R1	Size changed, Insertion Loss to 1.0dB Max	2023.04.28	Jeffrey Chung	Michael Jeon
3	R2	Addition of environmental condition	2023.05.15	Jeffrey Chung	Michael Jeon
4					
5					
6					

■ Mechanical Drawing

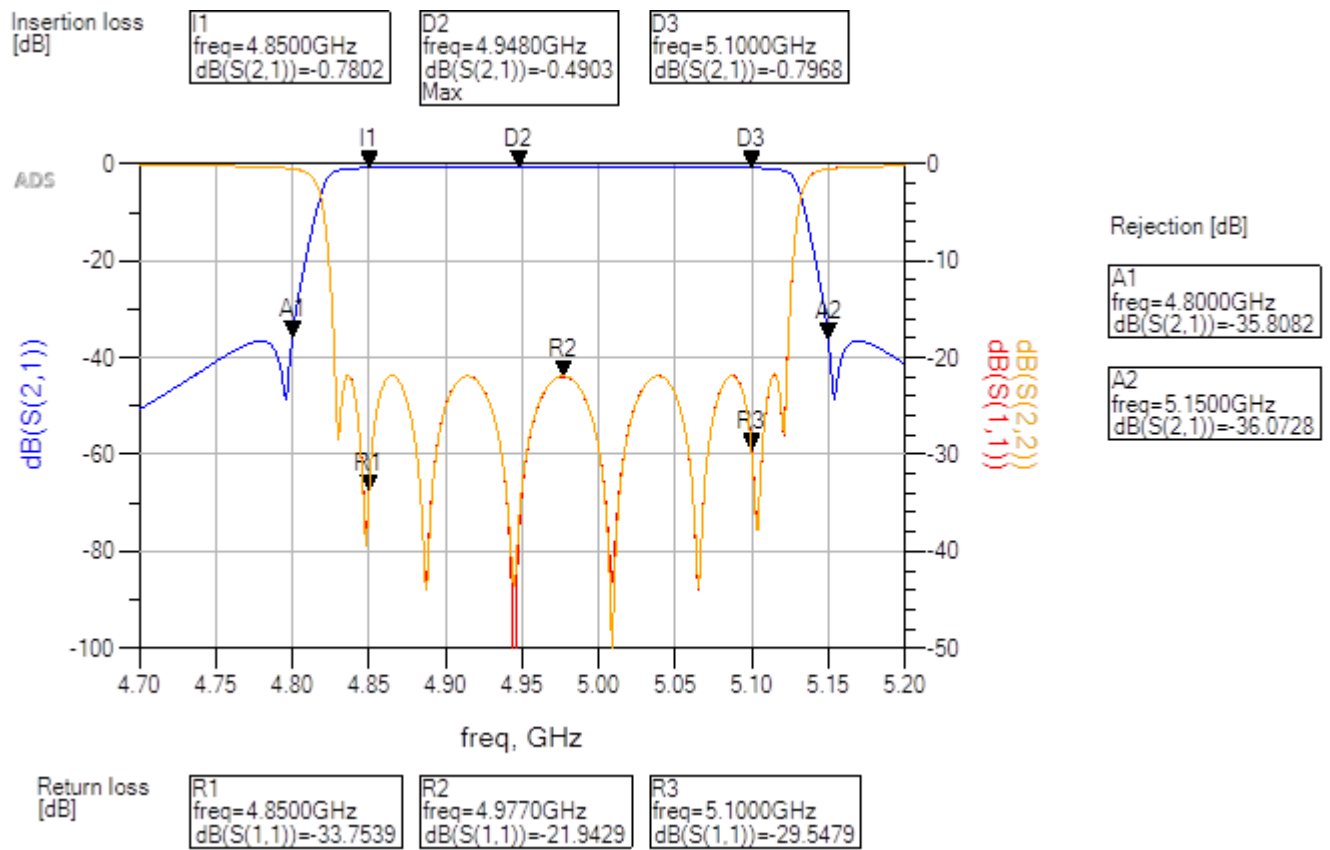


■ Electrical Specification

Parameter	Specification	Remark
1. Center Frequency	4975MHz	
2. Bandwidth	250MHz[4850 ~ 5100MHz]	
3. Insertion Loss	1.0dB Max.	Proposed
4. Attenuation	30dB Min @ DC ~ 4800MHz 30dB Min @ 5150 ~ 10000MHz	
5. Power Handling	40dBm Max.	
6. In/Out Impedance	50Ω	
7. Temperature Range	-40°C ~ +85°C	
8. Dimension[WxDxH]	74.5 X 40.0 X 23mm Max	
9. Weight	170Grams Max.	Proposed
10. Connectors	SMA(F) & SMA(M)	
11.MTBF	20,000HRS Min.	

※It is subjected to change with prior notice.

Simulation Curve



■ Environmental Condition

No	Environment	Non-Operating / Applicable Standard	Operating / Applicable Standard	Remark
1	Temperatures & Altitude Temperature Shock	<ul style="list-style-type: none"> - Temperature range: +33°C to +71° - Cycle duration: 24 hours - No. of cycles: 7. <p>/ MIL-STD-810F's method 501.4 procedure I</p> <ul style="list-style-type: none"> - Altitude: 40 Kft - Temperature range: -20°C - Cycle duration: 24 hours - No. of cycles: 1 <p>/ MIL-STD-810F's 502.7, procedure I</p>	<ul style="list-style-type: none"> - Temperature range : -30°C to +50°C - Altitude : 18 Kft - For Safety Of Flight (SOF) test: 3 cycles - For QUAL test: 10 cycles. <p>/ MIL-STD-810F's method 520.2 procedure III</p>	
2	Humidity	<ul style="list-style-type: none"> - Humidity > 95%RH - Temperature range: +30°C to +60°C - Cycle duration: 24 hours - Number of cycles:10 <p>/ MIL-STD-810F's method 507.4</p>	<ul style="list-style-type: none"> - Humidity > 95%RH - Temperature : +30°C - Cycle duration: 4 hours - Number of cycles:2 <p>/ MIL-STD-810F's method 507.4</p>	
3	Fungus	Engineering design declaration.		
4	Salt fog (Spray)	<ul style="list-style-type: none"> - Salt solution concentration: 5±1% - Salt fog PH: 6.5 to 7.2 Salt fog fallout rate: 1-3 ml/80cm²/h. <p>/ MIL-STD-810F's method 509.4</p>		
5	Sand and Dust		<ul style="list-style-type: none"> - Air velocity: 8.9 m/sec - Sand concentration: 10.6 ± 7 g/m³ - Humidity: <30% RH - Temperature: +23°C & +50°C. <p>/ MIL-STD-810F's method 510.4 Procedure I&II</p>	
6	Degree of Enclosure	IEC 60529 IAW or IP X5		
7	Fluid Contamination (*)	Refer to Table 4 / MIL-STD-810F's method 504		
8	Vibration (**)	<ul style="list-style-type: none"> - Axes: 3 (±X,±Y,±Z) - Vibration Time in Each Axis = 60 min per axis <p>/ MIL-STD-810F's method 514.5, procedure I, category 4</p>	<ul style="list-style-type: none"> - Axes: 3 (±X,±Y,±Z) - Vibration Time in Each Axis = 1 hour <p>/ MIL-STD-810F's method 514.5, procedure I, category 13.</p>	
9	Aircraft cargo vibration	<ul style="list-style-type: none"> - Axes: 3 (±X,±Y,±Z) - Vibration Time in Each Axis = 5 min per axis <p>/ MIL-STD-810F's method 514.5, procedure I, category 7</p>		

10	Shock		<ul style="list-style-type: none"> - Axes: 3 ($\pm X, \pm Y, \pm Z$) - Shocks per axis: 6 (3 each direction) - Shock form: half sine - Pulse duration: 50msec - Shock amplitude: 25g. <p>/ MIL-STD-810F's method 516.5, procedure I</p>	
11	Acceleration(20g)		<ul style="list-style-type: none"> - Axes: 3 ($\pm X, \pm Y, \pm Z$) - Acceleration time: 1min. <p>/ MIL-STD-810F's method 513.5 procedures I & II</p>	
12	Corrosion	Engineering design declaration.		
13	Explosive Atmosphere		<ul style="list-style-type: none"> - Max temperature: +50°C - Altitude: 18 Kft <p>/ MIL-STD-810F's method 511.4</p>	

(*)

Table 4: Fluid Contamination

#	Fluid Group	Fluid Type	Fluid Temperature	UUT Temperature	Soak Temperature
1.	Fuels	Mogad 98	+40° C	+71° C	+71° C
2.	Lubricating Oil	Liqui-Moly 10W-40	+70° C	+71° C	+71° C
3.	Grease	Rocol Dry Moly Paste, AEROSHELL 22	Ambient	+71° C	+71° C
4.	Solvents and Cleaning	3258 1A1LP	Ambient	+71° C	+71° C

(**)

Table 5: Vibration Frequencies

#	Frequency	F ₀ Multiplier	Symbol
1.	50 Hz	x1	f ₀
2.	100 Hz	x2	f ₁
3.	125 Hz	x2.5	f _{1'}
4.	150 Hz	x3	f ₂
5.	175 Hz	x3.5	f _{2'}
6.	200 Hz	x4	f ₃