

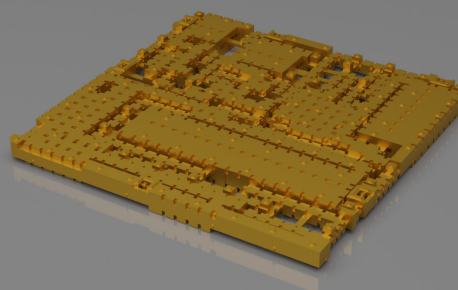
Features and Benefits

- **Small Size and Lightweight**
-Weight: 3.7g
- **Near Ideal Performance**
-Low insertion loss and high rejection
- **Precision**
-Low part-to-part variation
- **Ease of Assembly**
-Standard SMT processes

Applications

- **Satellite Communications**
- **Defense**
- **Test & Measurement**
- **Telecom**

Part Number PSM0218B5S



5-Channel Multiplexer

5-Channel Multiplexer in a SMT package and miniature size.

Description

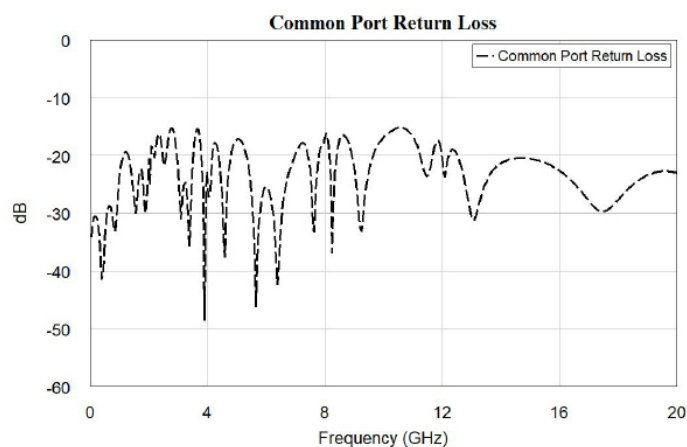
μMUX is a product family of multiplexers, low-pass filters and diplexers which can be deployed individually or cascaded together to address multiple-channel, filter requirements for ultra-broadband receivers and transmitters. The μMUX family utilizes Polyrata micro-miniature coax technology to offer superior filter performance in a small package footprint which is surface-mountable.

The PSM0218B5S is a 5-channel multiplexer covering DC-2GHz, 2-4GHz, 4-8GHz, 8-12GHz and 12-18GHz all in a surface mount package at a size of 26 x 26.5mm.

Please contact Nuvotronics for a complete summary of capabilities and options.

Typical Electrical Performance

Common Port (Port 1)				
Parameter	Frequency Range (GHz)	Min	Typ	Max
Return Loss (dB)	DC - 17.1	13	15	-



Typical Electrical Performance*

Band 1 (Port 2)				
Parameter	Frequency Range (GHz)	Min	Typ	Max
Passband Insertion Loss (dB)	DC - 1.9	-	1.6	2
Passband Return Loss (dB)	DC - 1.9	13	15	-
Stopband (dB)	2.3 - 4.0	55	57	-

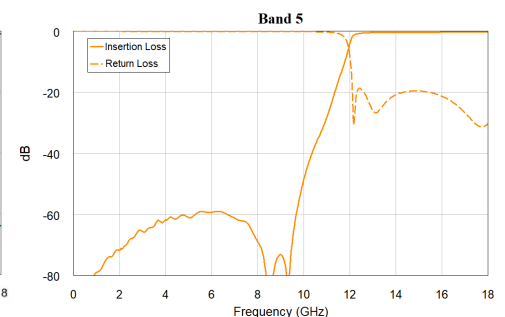
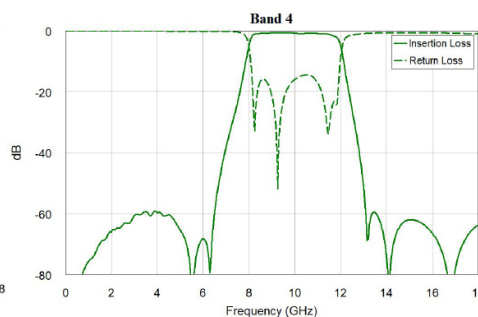
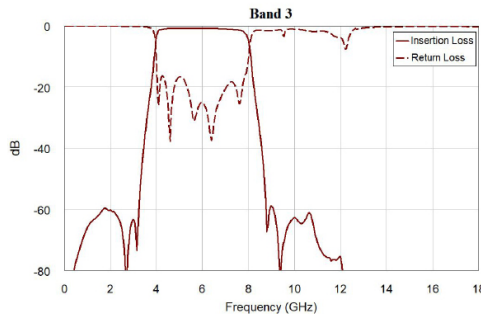
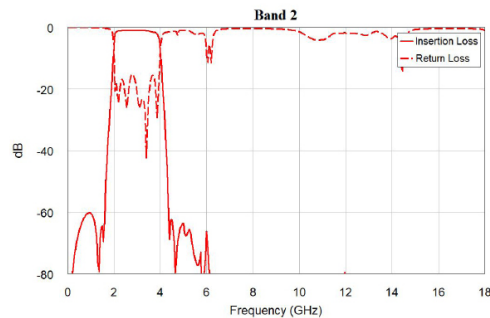
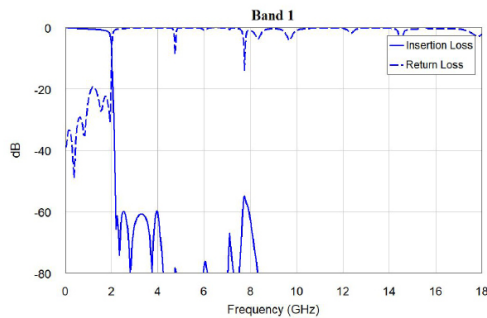
Band 2 (Port 3)				
Parameter	Frequency Range (GHz)	Min	Typ	Max
Passband Insertion Loss (dB)	2.1 - 3.8	-	1.75	2
Passband Return Loss (dB)	2.1 - 3.8	13	15	-
Stopband (dB)	DC - 1.6	55	57	-
Stopband (dB)	4.6 - 8.0	55	57	-

Band 3 (Port 4)				
Parameter	Frequency Range (GHz)	Min	Typ	Max
Passband Insertion Loss (dB)	4.2 - 7.6	-	1.35	1.5
Passband Return Loss (dB)	4.2 - 7.6	13	15	-
Stopband (dB)	DC - 3.2	55	57	-
Stopband (dB)	9.2 - 15.0	55	57	-

Band 4 (Port 5)				
Parameter	Frequency Range (GHz)	Min	Typ	Max
Passband Insertion Loss (dB)	8.4 - 11.4	-	1	1.25
Passband Return Loss (dB)	8.4 - 11.4	13	15	-
Stopband (dB)	DC - 6.4	55	57	-
Stopband (dB)	13.8 - 22.0	55	57	-

Band 5 (Port 6)				
Parameter	Frequency Range (GHz)	Min	Typ	Max
Passband Insertion Loss (dB)	12.6 - 17.1	-	0.6	1
Passband Return Loss (dB)	12.6 - 17.1	13	15	-
Stopband (dB)	DC - 9.6	55	57	-

Typical Performance



*The specifications above are valid at ambient temperature. Insertion loss performance over -40°C to 85°C may vary by +/- 0.2 dB.

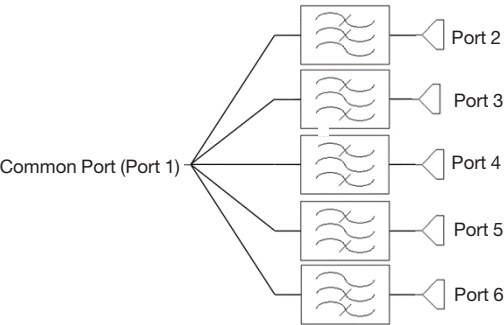
Additional Details

Special Handling / Storage Instructions	
Storage	IAW IPC-4553A
ESD Sensitivity	None
Ordering Information	PSM0218B5S
Standard Packaging	Gel Pak
Alternative Packaging Available	Tape and Reel
Component Termination Finish	Immersion Gold
Export Certifications	TBD

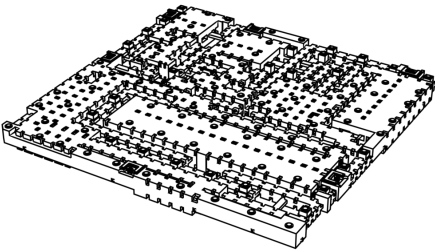
Absolute Maximum Ratings

Power	5W
Operating Temp	-55°C to 125°C
Solder Reflow	260°C max. for 10 seconds, 3 cycles
Epoxy Attach	150°C max. for 90 minutes

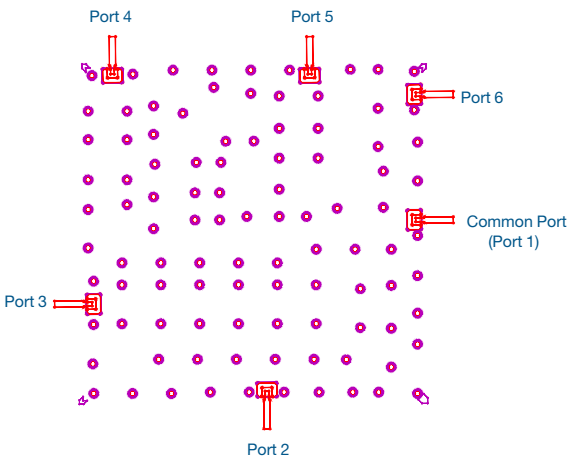
Simplified Block Diagram



Component View

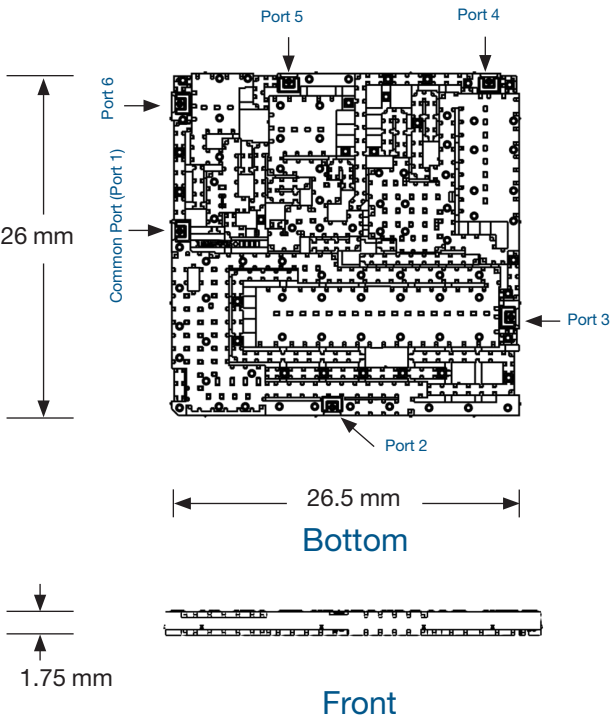


PCB Layout



Legend: TOP METAL  SOLDER MASK  PART OUTLINE 

Mechanical Drawing



Drawings available upon request