

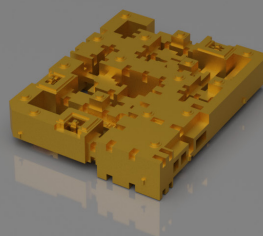
Features and Benefits

- **Small Size and Lightweight**
-Weight: 0.46g
- **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 PSD1840B2S



18 GHz “Cross-Over” LPF & HPF Diplexer

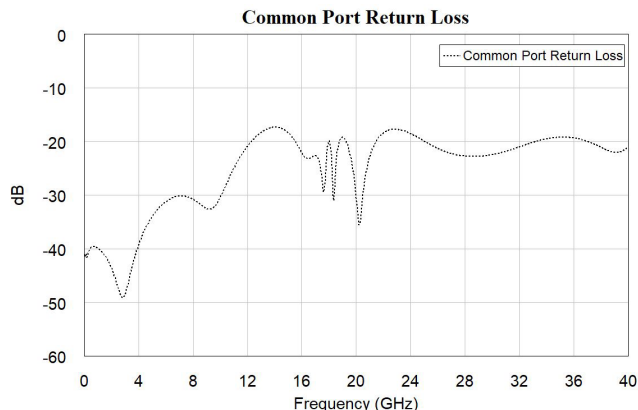
Surface-Mount Diplexer in a miniature size.

Description

This diplexer is part of the μ MUX series which offers high performance in a small form factor (9.7 x 7.9mm). The diplexer consists of a low-pass filter from DC-18 GHz and high-pass filter from 18-40GHz in a SMT PCB mountable configuration which can be deployed stand-alone or cascaded with other μ MUX multi-channel series filters.

Typical Electrical Performance*

Common Port (Port 1)				
Parameter	Frequency Range (GHz)	Min	Typ	Max
Return Loss (dB)	DC - 40	13	15	-

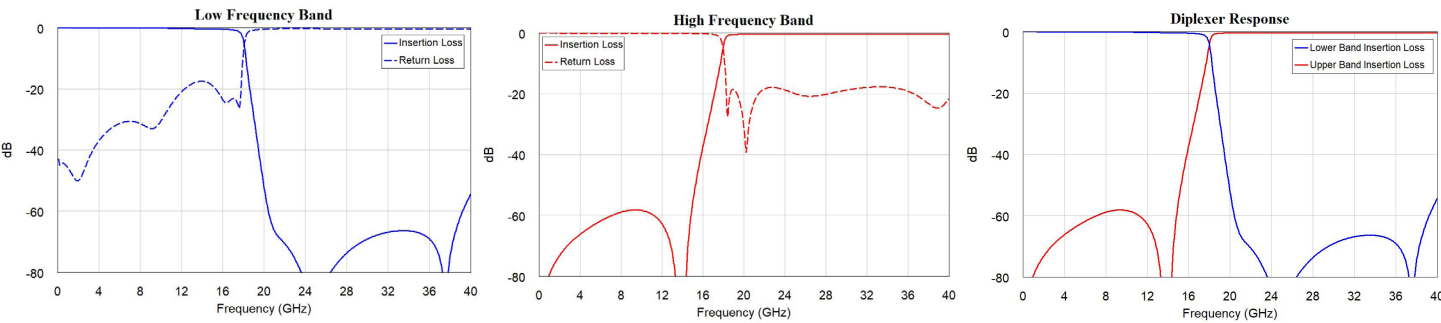


*The specifications above are valid at ambient temperature. Insertion loss performance over -40°C to 85°C may vary by +/- 0.2 dB.

Typical Electrical Performance

Low Port (Port 2)					High Port (Port 3)				
Parameter	Frequency Range (GHz)	Min	Typ	Max	Parameter	Frequency Range (GHz)	Min	Typ	Max
Passband Insertion Loss (dB)	DC - 17.1	-	0.8	0.95	Passband Insertion Loss (dB)	18.9 - 40	-	0.65	0.8
Passband Return Loss (dB)	DC - 17.1	13	15	-	Passband Return Loss (dB)	18.9 - 40	13	15	-
Stopband (dB)	21 - 40	50	53	-	Stopband (dB)	DC - 14.4	55	57	-

Typical Performance



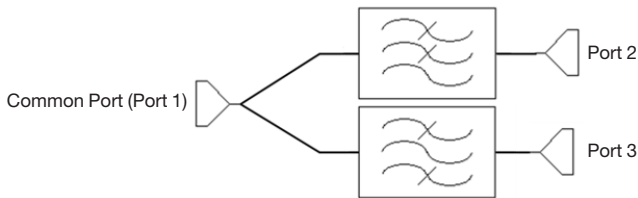
Additional Details

Special Handling / Storage Instructions	
Storage	IAW IPC-4553A
ESD Sensitivity	None
Ordering Information	PSD1840B2SV2
Standard Packaging	Gel Pak
Alternative Packaging Available	Tape and Reel
Component Termination Finish	Immersion Gold
Export Certifications	TBD

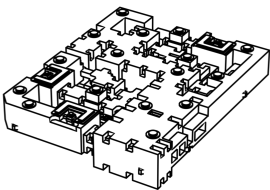
Absolute Maximum Ratings

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

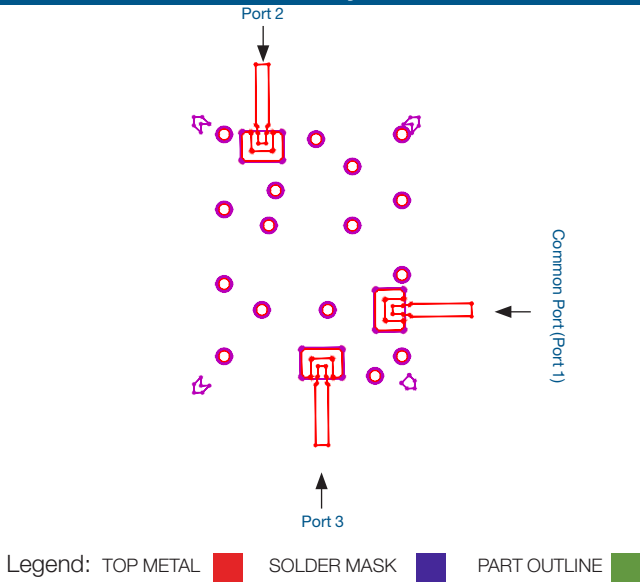
Simplified Block Diagram



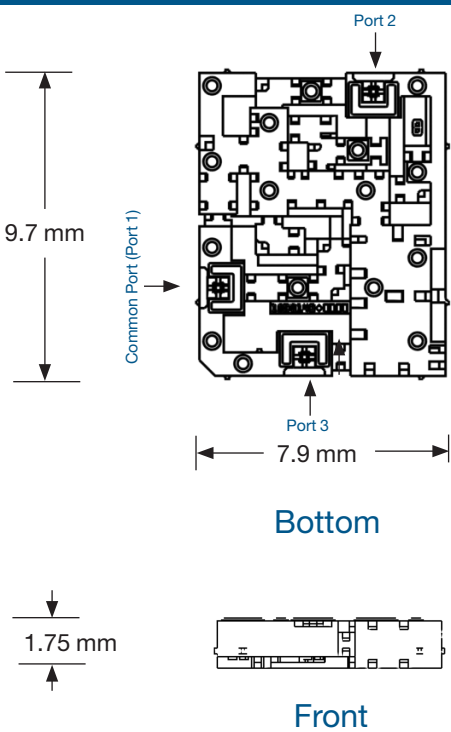
Component View



PCB Layout



Mechanical Drawing



Drawings available upon request