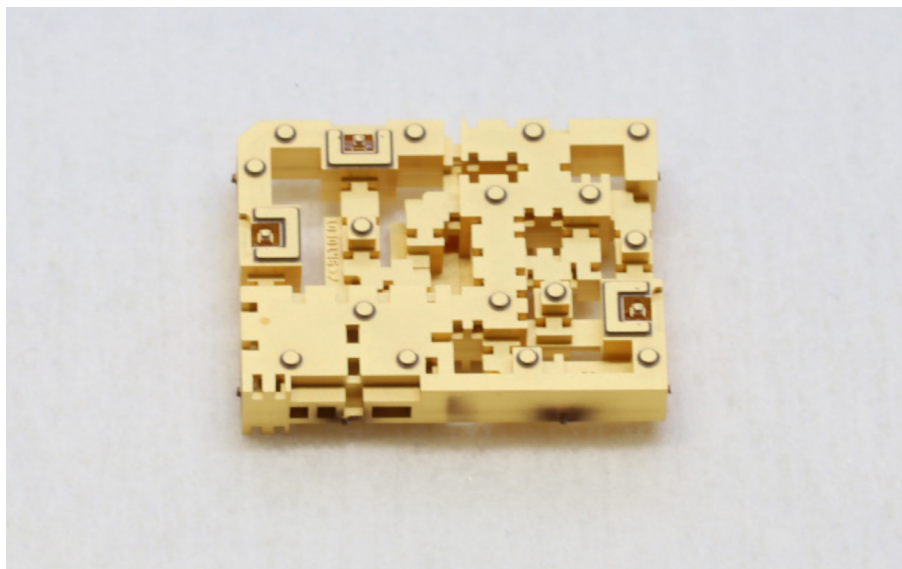


Features and Benefits

- **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**



18 GHz “Cross-Over” LPF & HPF Diplexer

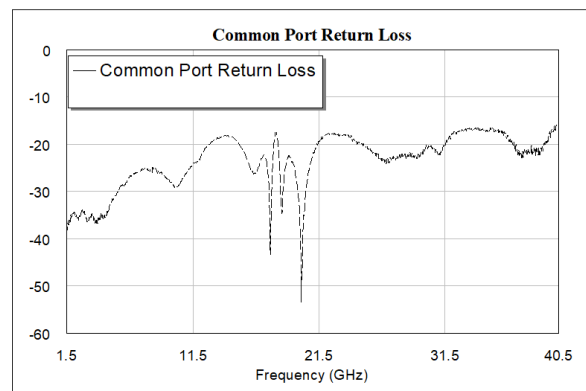
Surface-Mount Diplexer in a miniature size.

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 mutli-channel series filters.

Typical Electrical Performance*

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



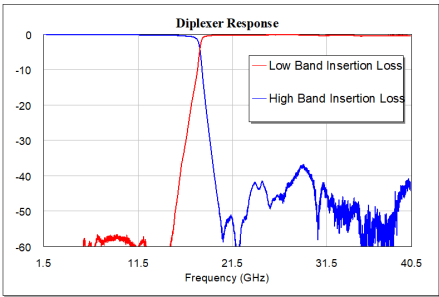
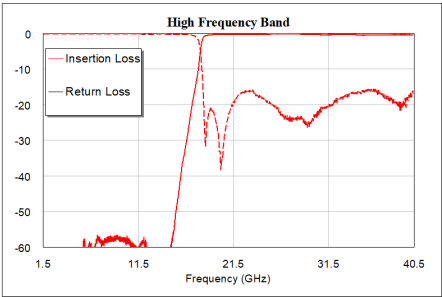
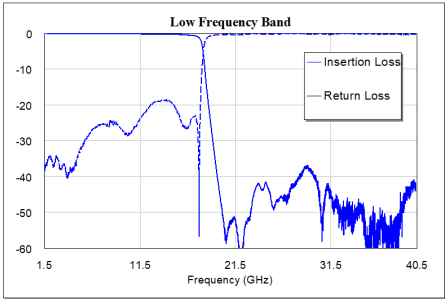
*The specifications above are valid at ambient temperature. Insertion loss performance over -40°C to 85°C may vary by +/- 0.2 dB.

Typical Electrical Performance

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

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

Typical Performance



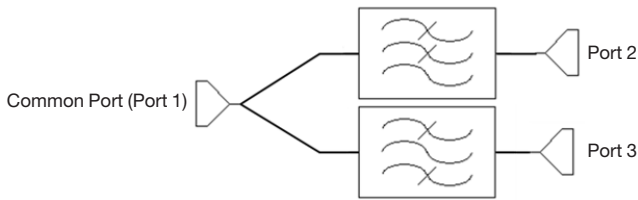
Additional Details

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

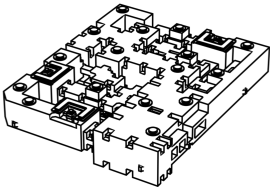
Absolute Maximum Ratings

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

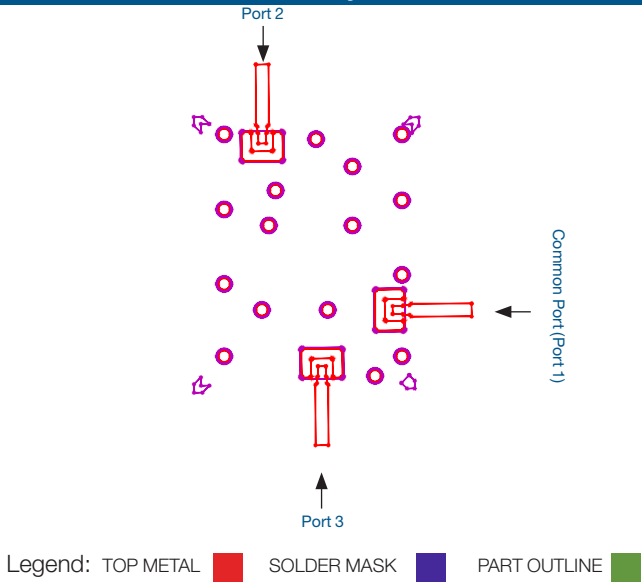
Simplified Block Diagram



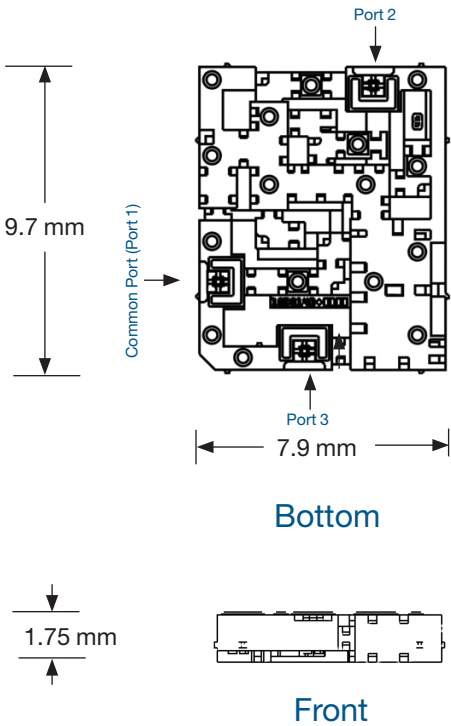
Component View



PCB Layout



Mechanical Drawing



Drawings available upon request