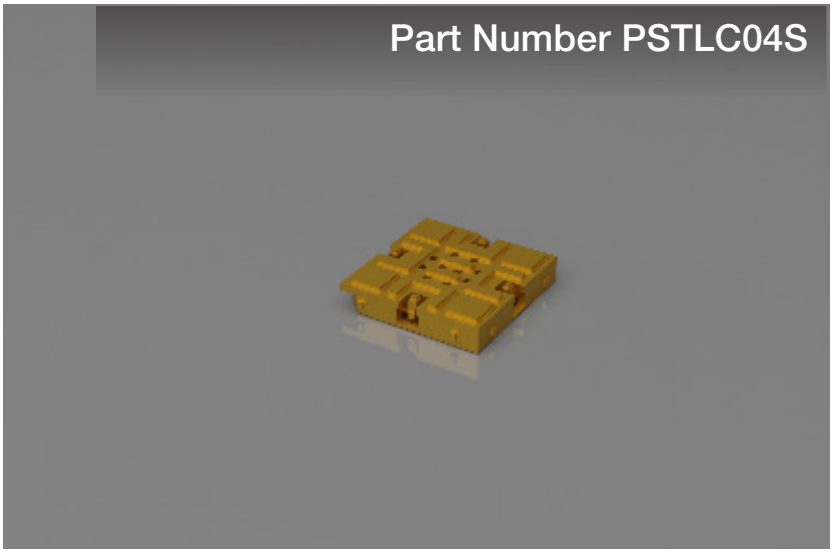
Features and Benefits

- **Small Size: 4 x 4mm**
- **Frequency Range: DC - 50 GHz**
- **Weight: 0.12g**
- **Low loss, high isolation**
- **Compatible with SMT assembly processes**

Applications

- **EW**
- **Test and Measurement**
- **Satellite Communications**
- **Telecommunications**
- **RADAR**



Ultra-Broadband, Cross-over Interconnect Bridge

SMT launch configuration (Dual-Path connections)

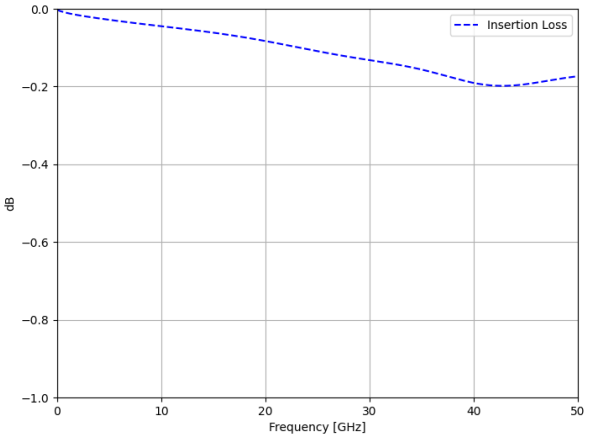
Description

The PSTLC04S is a 4x4mm dual-path cross-over, interconnect bridge. It has superior performance of typical 0.2dB IL and better than 30dB return loss over a frequency range of DC-50 GHz. The isolation is better than -50dB over the frequency range. These devices were derived for high-density, multi-channel receivers to manage line routing while helping to minimize the number of PCB layers.

Typical Electrical Performance

Parameter	Frequency Range (GHz)	Min	Typ	Max
Insertion Loss (dB)	DC - 50	-	0.03*sqrt(FGHz)	0.2+0.05*sqrt(FGHz)
Return Loss (dB)	DC - 50	-20	-29	-
Isolation (dB)*	DC - 50	-40	-50	-
Phase Match (degrees)	DC - 50	-2	0	2

*The isolation data simulated through HFSS. Requires channelization.



Part Name PSTLC04S

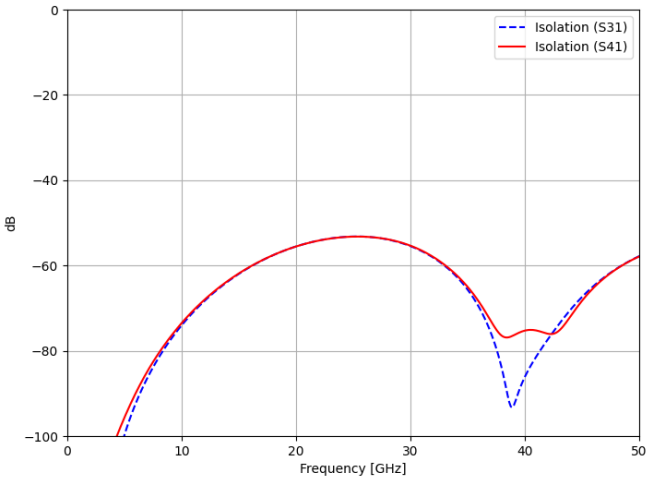
Additional Details

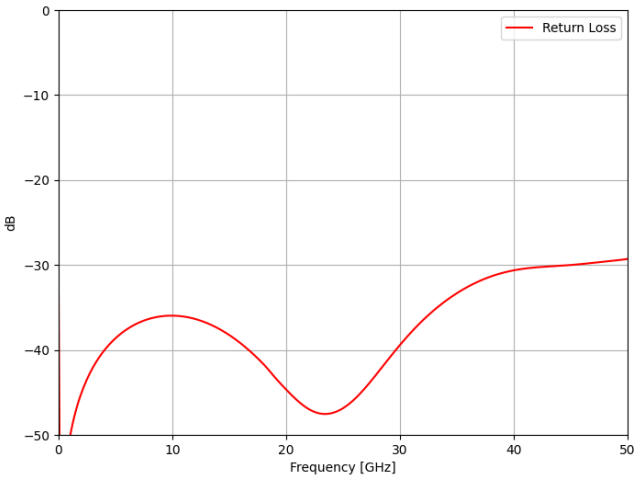
Special Handling / Storage Instructions	
Storage	IAW IPC-4553A
ESD Sensitivity	None
Ordering Information	PSTLC04S
Standard Packaging	Gel Pack
Alternative Packaging Available	PSTLCO4STR tape and reel
Component Termination Finish	Immersion Gold
Export Certifications	TBA

Absolute Maximum Ratings

Power	TBD
Operating Temp	-55°C to 85°C
Solder Reflow	260°C max. for 10 seconds, 3 cycles
Epoxy Attach	150°C max. for 90 minutes

*Power handling will vary depending on balance between the amplifiers and supports one amplifier failing.

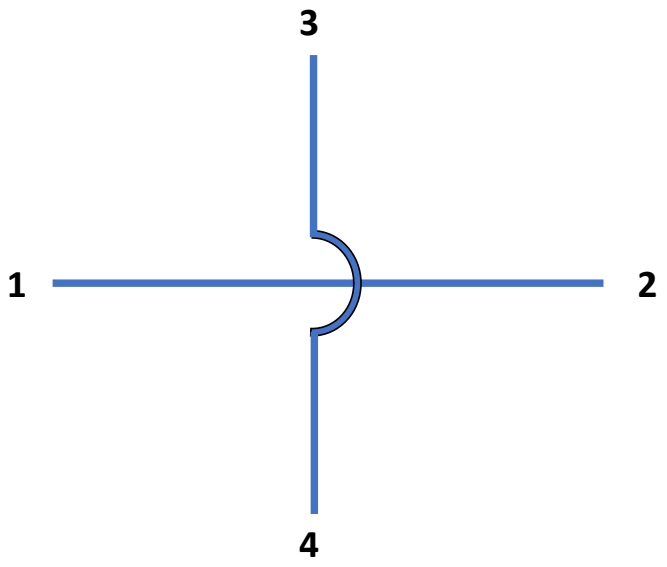




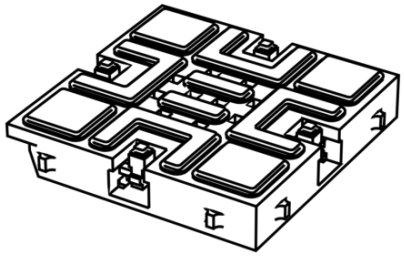
Note: Isolation as measured by probe testing at the part level. Higher isolation may be achieved by adding a lid externally.

Part Name PSTLC04S

Simplified Block Diagram



Component View



Mechanical Drawing