

Xinger®

Ultra Low Profile 0603 RF Crossover

Description

The (patent pending) X0060L5050AHF is an ultra-small low profile crossover that enables the transition of two intersecting RF traces in an easy to use industry standard SMT package. The 0603 crossover is ideal for any critical applications where layout and available space are a premium and resorting to addition PWB layers and larger overall footprints are unacceptable. With low insertion loss and high isolation packaged with cost in mind, this novel component delivers.



Detailed Electrical Specifications*: Specifications subject to change without notice.

Features:	Parameter	ROOM (25°C)			Unit	
		Min.	Typ.	Max		
<ul style="list-style-type: none"> • 0 – 6000 MHz. • 0.7mm Height Profile • 50 Ohm RF-RF Crossover • All Wireless Frequencies • Low Insertion Loss • High Isolation • Surface Mountable • Tape & Reel • Non-conductive Surface • RoHS Compliant • Halogen Free 	Frequency	0		6000	MHz	
	Port Impedance		50		Ω	
	Return Loss	16	19		dB	
	Insertion Loss		0.1	0.15	dB	
	Isolation (cross-talk)	0 – 700 MHz	45	53		dB
		700 - 1700 MHz	40	47		dB
		1700 - 2200 MHz	39	46		dB
		2200 - 3000 MHz	37	43		dB
		3000 - 6000 MHz	27	31		dB
	Power Handling			2		Watts
Operating Temperature		-55		+85	°C	

Outline Drawing

TOP VIEW (Near Side)

Orientation Marker Denotes Pin Location

SIDE VIEW

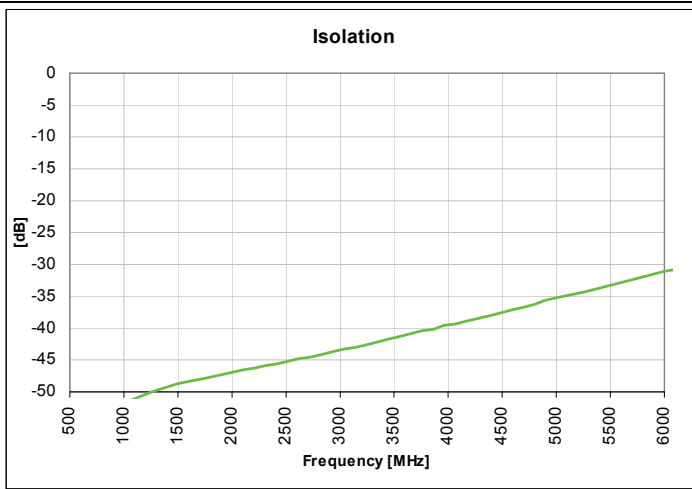
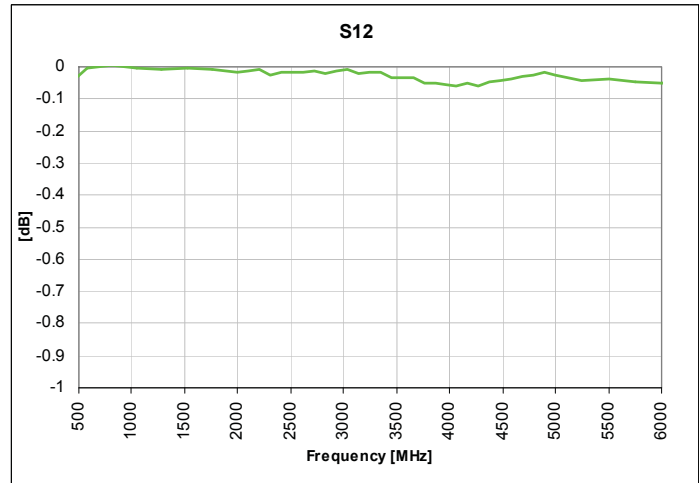
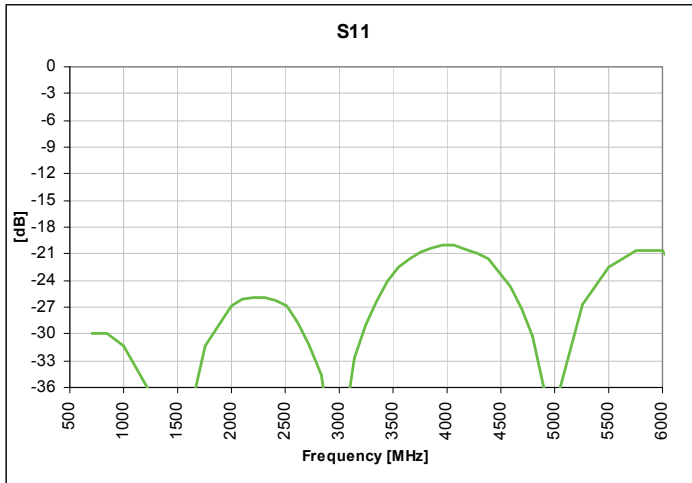
BOTTOM VIEW (Far Side)

Orientation Marker Denotes Pin Location

Pin	Designation
1	GND
2	RF 2 In/Out
3	GND
4	RF 1 In/Out
5	RF 2 In/Out
6	RF 1 In/Out

Mechanical Outline
-Dimensions are in Millimeters

Typical Broadband Performance: 0 GHz. to 4.5GHz.

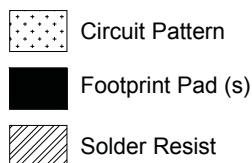


Mounting Configuration:

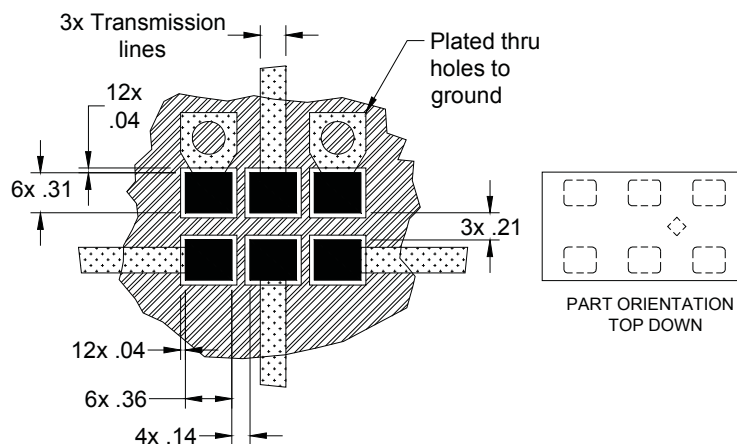
In order for Xinger surface mount components to work optimally, the proper impedance transmission lines must be used to connect to the RF ports. If this condition is not satisfied, insertion loss, Isolation and VSWR may not meet published specifications.

All of the Xinger components are constructed from ceramic filled PTFE composites which possess excellent electrical and mechanical stability having X and Y thermal coefficient of expansion (CTE) of 17 ppm/°C.

An example of the PCB footprint used in the testing of these parts is shown on below. In specific designs, the transmission line widths need to be adjusted to the unique dielectric coefficients and thicknesses as well as varying pick and place equipment tolerances.



Dimensions are in Millimeters
Mounting Footprint



Packaging and Ordering Information

Parts are available in reel and are packaged per EIA 481-2. Parts are oriented in tape and reel as shown below. Minimum order quantities are 4000 per reel. See Model Numbers below for further ordering information.

