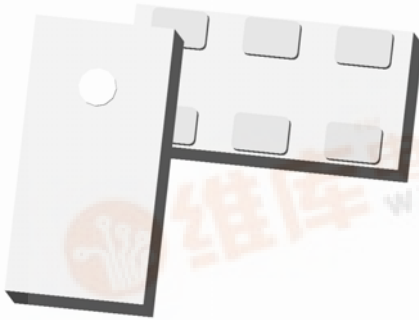


# Xinger®

## Ultra Low Profile 0603 RF Crossover



### Description

The (patent pending) X0060L7575A00 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	
• 0 – 2500 MHz.	Frequency	0		2500	MHz
• 0.7mm Height Profile	Port Impedance		75		Ω
• 75 Ohm RF-RF Crossover	Return Loss	19	21		dB
• All Wireless Frequencies	Insertion Loss		0.1	0.15	dB
• Low Insertion Loss	Isolation (cross-talk)				
• High Isolation	0 – 700 MHz	44	52		dB
• Surface Mountable	700 - 1700 MHz	40	47		dB
• Tape & Reel	1700 - 2500 MHz	38	43		dB
• Non-conductive Surface	Power Handling			2	Watts
• RoHS Compliant	Operating Temperature	-55		+85	°C

### Outline Drawing

Top View (Near-side)

Side View

Bottom View (Far-side)

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

Tolerances are Non-Cumulative

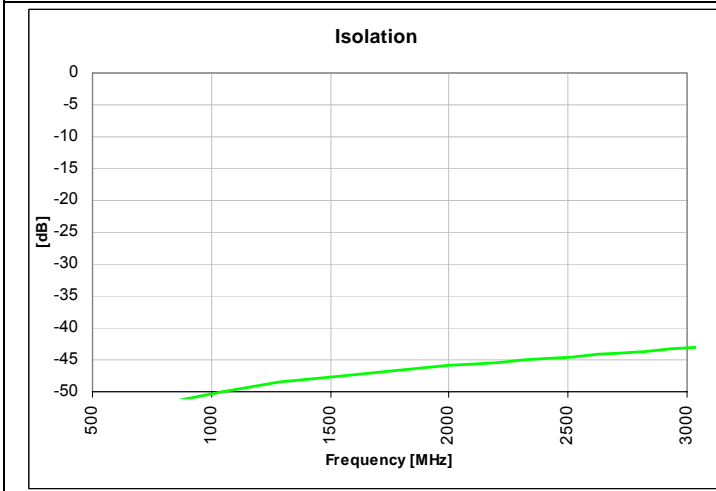
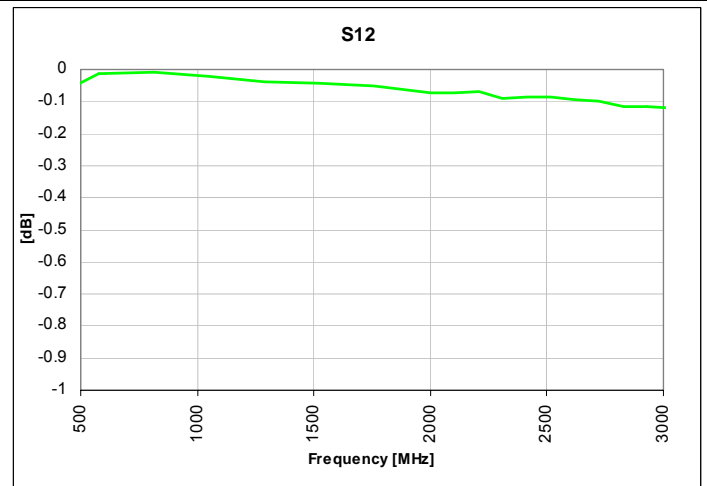
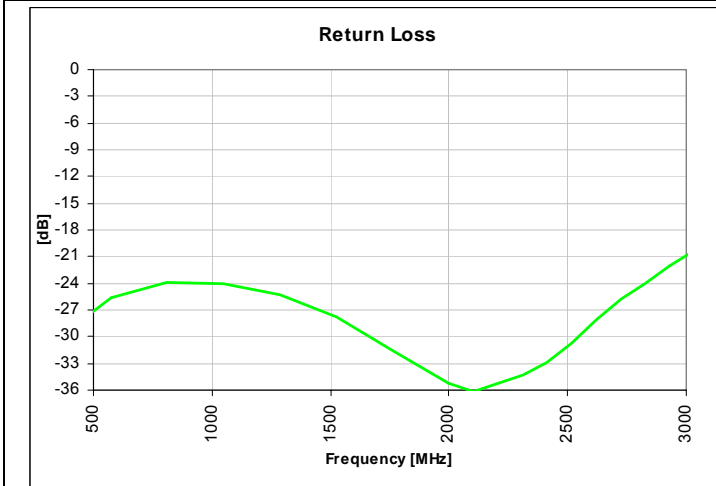
Dimensions are in Inches [Millimeters]  
Mechanical Outline

# Model X0060L7575A00

Rev C



## Typical Broadband Performance: 0 GHz. to 3.0 GHz.

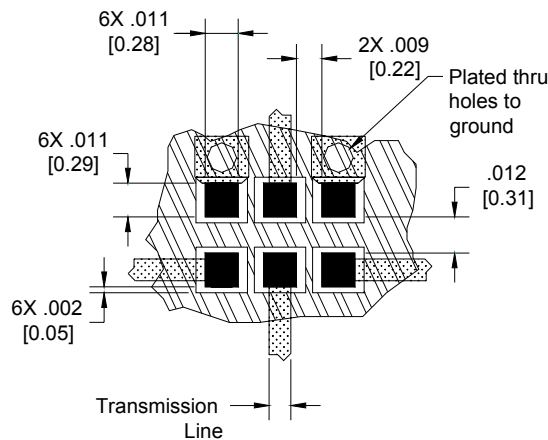


### Mounting Configuration:

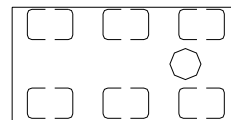
In order for Xinger surface mount components to work optimally, the proper impedance transmission lines must be used to connect to the RF ports. If this condition is not satisfied, insertion loss, Isolation and VSWR may not meet published specifications.




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.



Part Orientation (Top View)



-  Circuit Pattern
-  Footprint Pad (s)
-  Solder Resist

Dimensions are in Inches [Millimeters]  
Mounting Footprint



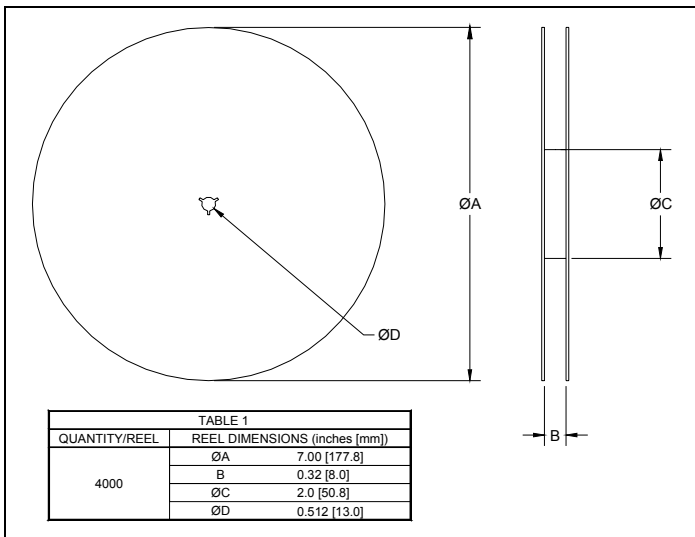
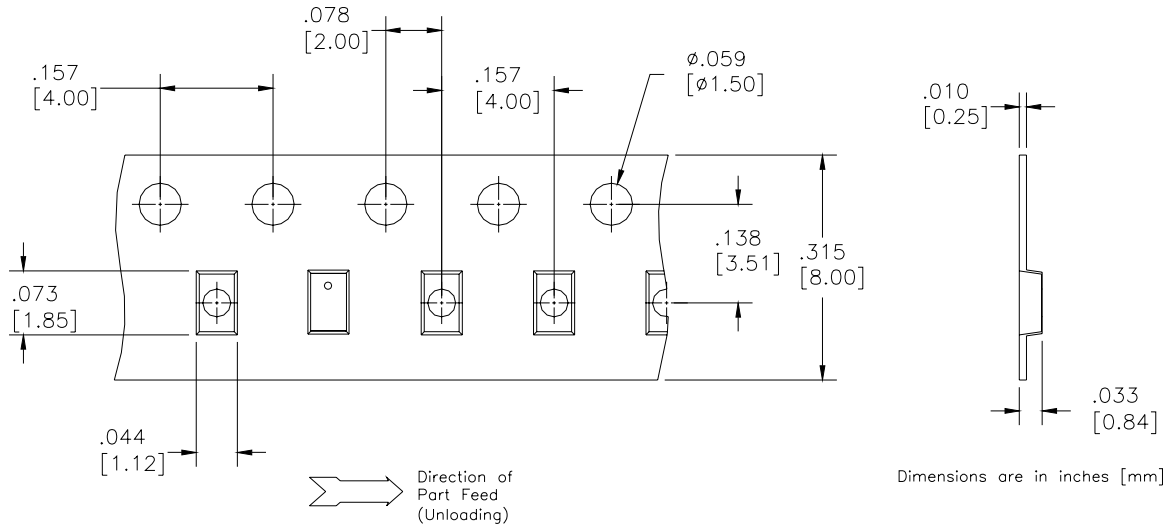
# Model X0060L7575A00

Rev C



## 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.



# BD 2425 J 50 100 A 00

Function	Frequency	Package Dimensions	Unbalanced Impedance	Balanced Impedance + Coupling	Plating Finish	Codes
<b>B = Balun</b> <b>BD = Balun + DC</b> <b>F = Filter</b> <b>FB = Filter / Balun</b> <b>C = 3dB Coupler</b> <b>DC = Directional</b> <b>J = RF Jumper</b> <b>X = RF cross over</b>	<b>0110 = 100 – 1000 MHz</b> <b>0810 = 800 – 1000 MHz</b> <b>0922 = 950 – 2150 MHz</b> <b>0826 = 800 – 6200 MHz</b> <b>1222 = 1200 – 2200 MHz</b> <b>1416 = 1400 – 1600 MHz</b> <b>1722 = 1700 – 2200 MHz</b> <b>2326 = 2300 – 2600 MHz</b> <b>2425 = 2400 – 2500 MHz</b> <b>3150 = 3100 – 5000 MHz</b> <b>3436 = 3400 – 3600 MHz</b> <b>4859 = 4800 – 5900MHz</b> <b>5153 = 5100 – 5300 MHz</b> <b>5159 = 5100 – 5900 MHz</b> <b>5759 = 5700 – 5900 MHz</b>	<b>A = 150 x 150 mils</b> <small>(4mm x 4mm)</small> <b>C = 120 x 120 mils</b> <small>(3mm x 3mm)</small> <b>E = 100 x 80 mils</b> <small>(2.5mm x 2mm)</small> <b>J = 80 x 50 mils</b> <small>(2mm x 1.25mm)</small> <b>L = 60 x 30 mils</b> <small>(1.5mm x 0.75mm)</small> <b>N = 40 x 40 mils</b> <small>(1mm x 1mm)</small>	<b>50 = 50 Ohm</b> <b>75 = 75 Ohm</b>	<b>25 = 25 Ω Balanced</b> <b>30 = 30 Ω Balanced</b> <b>50 = 50 Ω Balanced</b> <b>75 = 75 Ω Balanced</b> <b>100 = 100 Ω Balanced</b> <b>150 = 150 Ω Balanced</b> <b>200 = 200 Ω Balanced</b> <b>300 = 300 Ω Balanced</b> <b>400 = 400 Ω Balanced</b> <b>03 = 3dB Hybrid</b> <b>10 = 10dB Directional</b> <b>20 = 20dB Directional</b>	<b>A = Gold</b> <b>P = Tin-Lead</b>	

