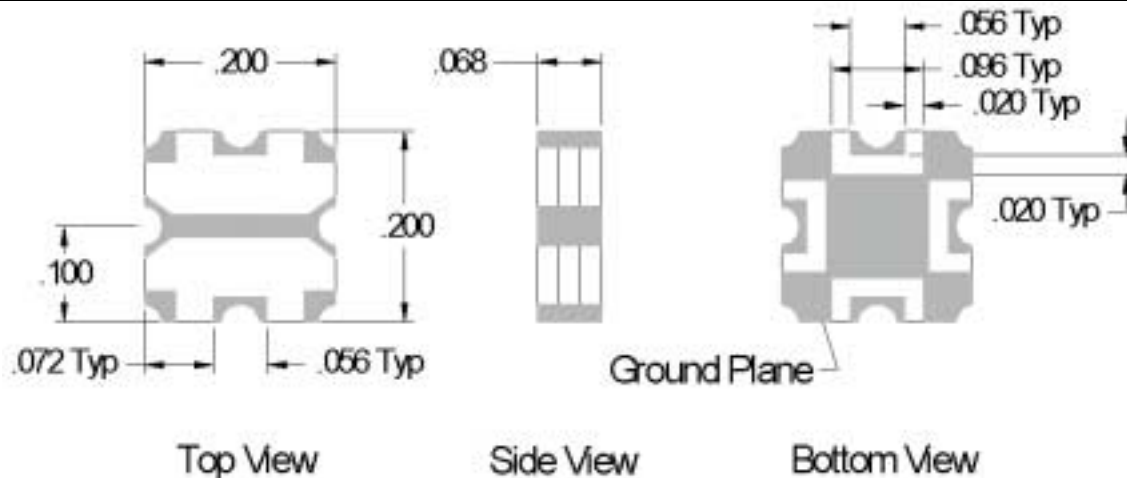
 <p style="text-align: center;">X2B RF-RF Crossover</p>	<p>Features:</p> <ul style="list-style-type: none"> • DC – 6.0 GHz • RF – RF Crossover • Low Loss • High Isolation • Surface Mountable • Tape And Reel • Convenient Package • 100% Tested 	<p>Description:</p> <p>The X2B is a low profile crossover to intersect an RF and RF circuit trace in an easy to use surface mount package designed for frequencies up to 6 GHz. The X2B is ideal for any application where an RF circuit must intersect with another RF circuit without resorting to a multilayer PCB. Parts have been run through rigorous qualification testing and units are 100% tested. They are manufactured using materials with x and y thermal expansion coefficients compatible with common substrates such as FR4, G-10 and polyamide.</p>
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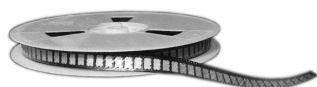
MECHANICAL OUTLINE:



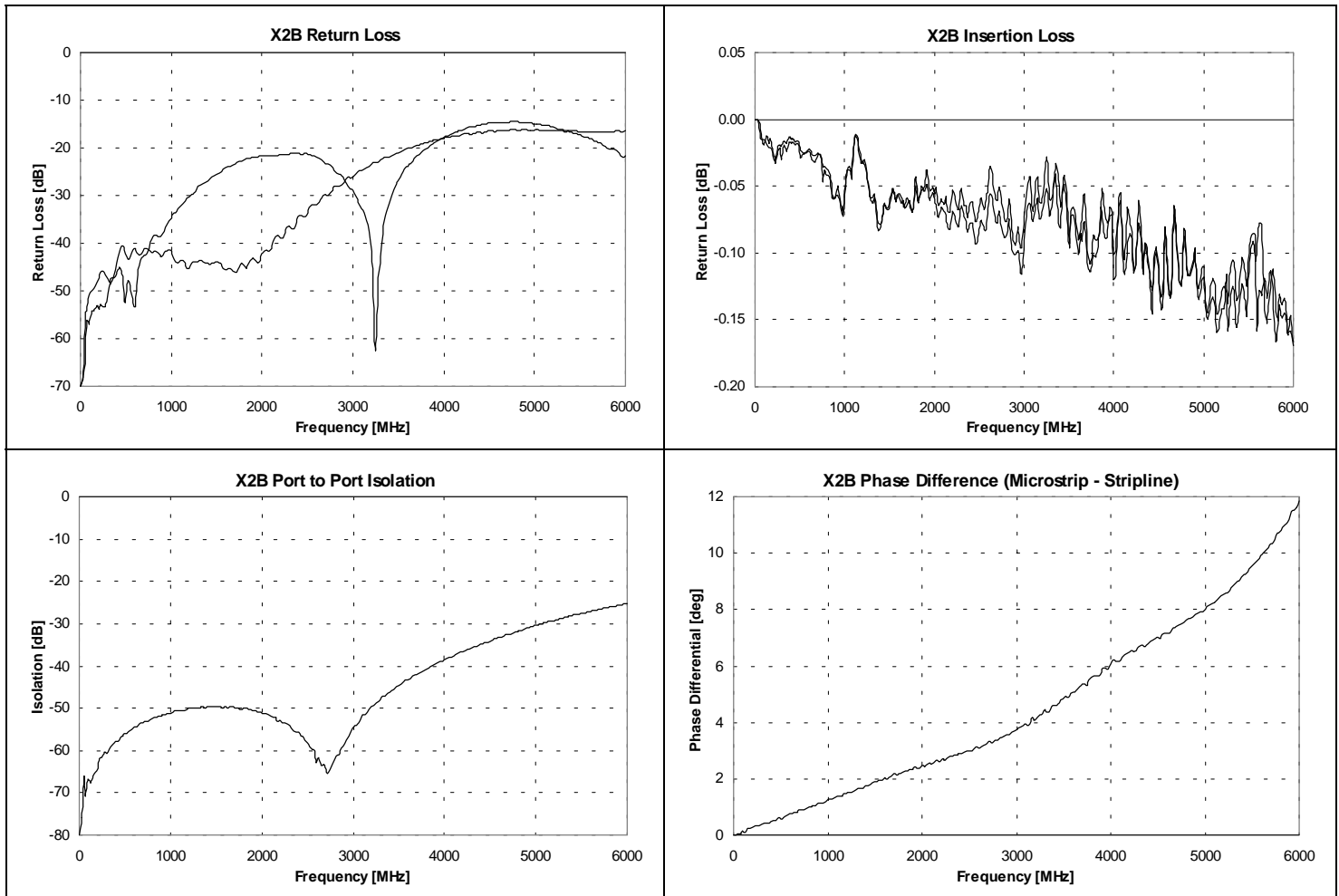
ELECTRICAL SPECIFICATIONS:

Specification	X2B			Units
	Low Band	Mid-Band	High Band	
Frequency	DC – 2.5	2.5 – 3.5	4.0 – 6.0	GHz
Port Impedance	50	50	50	Ohms
Return Loss	20	20	15	dB min.
Port to Port Isolation	50	40	20	dB min.
Insertion Loss	0.05	0.10	0.15	dB max.
Microstrip Θ_{JC}	285.2	285.2	285.2	°C/diss. Watt
Microstrip Pwr.	30	15	10	Watts Ave./CW
Stripline Θ_{JC}	143.4	143.4	143.4	°C/diss. Watt
Stripline Pwr.	50	25	15	Watts Ave./CW

Specifications based on performance of units installed in an RF test fixture. 50 ohms nominal impedance. -55°C to +85°C operating temperature. Unit will operate to +125°C with minor degradation in Insertion Loss performance. Specifications subject to change without notice.



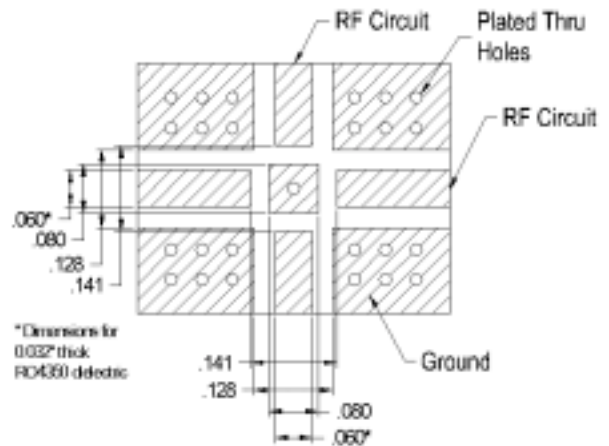
TYPICAL PERFORMANCE: (@ 25°C on test board)



MOUNTING

In order for Xinger crossovers to work optimally, there must be 50Ω transmission lines leading to and from all of the RF ports. Also, there must be a very good ground to the corners of the crossover to insure proper electrical performance. If either of these two conditions are not satisfied, insertion loss, VSWR and isolation parameters may not meet published specifications.

When a surface mount crossover is mounted to a printed circuit board, the primary concerns are; insuring the RF pads of the device are in contact with the circuit trace of the PCB and insuring the ground plane of neither the component nor the PCB is in contact with the RF signal. Since the component is not symmetrical, the crossovers are specifically oriented in the tape and reel. An example of how the PCB footprint could look is shown below. In specific designs, the 50Ω lines need to be adjusted to the unique dielectric coefficients and thicknesses as well as varying pick and place equipment tolerances.



SUGGESTED FOOTPRINT

