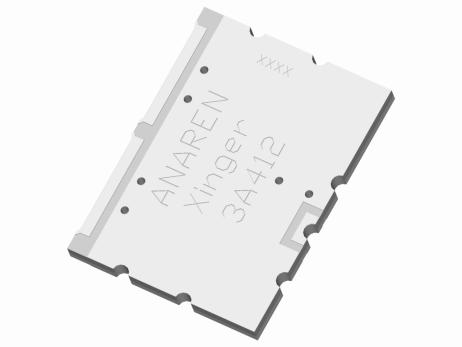
Model 3A412

Rev. B

Balun Transformers
50Ω to 12.5Ω Balanced



Description

The 3A412 is a low profile balanced to unbalanced transformer designed for push-pull amplifiers in an easy to use surface mount package for AMPS and GSM. These compact Xinger® surface mount baluns are ideal for high volume manufacturing and are more reliable and repeatable than traditional baluns. The 3A412 has an unbalanced port impedance of 50Ω and balanced port impedances of 12.5Ω to ground with a 25Ω balance between outputs. This eases the matching of the push-pull amplifier's power transistors, which have low impedance levels. The output ports have equal amplitude (-3dB) with 180 degree phase differential. The Xinger® balun is a result of years of research and development culminating with a solution so unique, a patent is pending on the design approach. The 3A412 is available on tape and reel for pick and place high volume manufacturing.

Features:

- **800 – 1000 MHz**
- **180° Transformer**
- **50 Ohm to 2 x 12.5+j Ohm**
- **Low Insertion Loss**
- **High Power**
- **Even Order Suppression**
- **Input to Output DC Isolation**
- **Surface Mountable**
- **Tape & Reel**
- **Convenient Package**

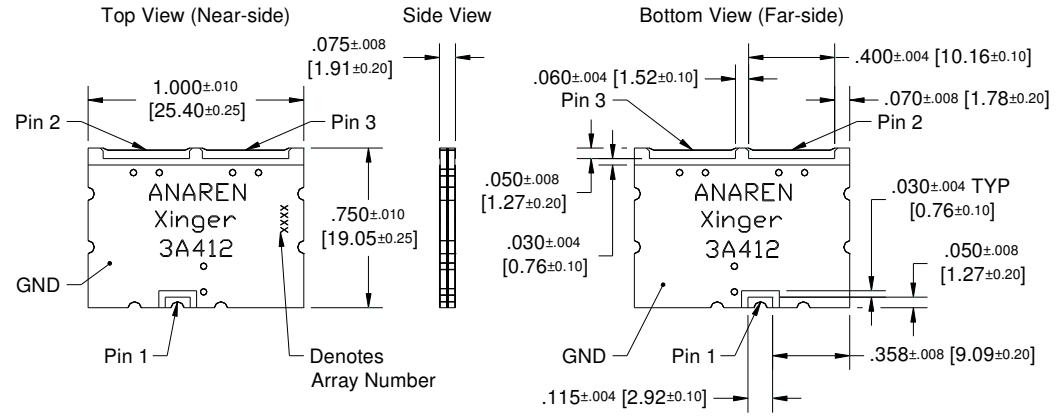
ELECTRICAL SPECIFICATIONS***

Frequency	Unbalanced Port Impedance	Balanced Port Impedance*	Return Loss	Insertion Loss
MHz	*Ohms*	*Ohms*	*dB min*	*dB max*
800-1000	50	12.5+j	15	0.48
869-894	50	12.5+j	15	0.35
925-960	50	12.5+j	15	0.40

Amplitude Balance	Phase Balance	Power Handling	ΘJC	Operating Temp.
dB max	*Degrees max*	*Watts*	*ºC / Watt*	*ºC*
0.40	180± 5.0	250	3.8	-55 to +85
0.40	180± 5.0	250	3.8	-55 to +85
0.40	180± 5.0	250	3.8	-55 to +85

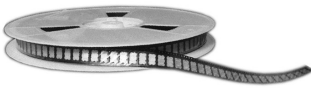
***Specification based on performance of unit properly installed on microstrip printed circuit boards with 50 Ω nominal impedance. Specifications subject to change without notice.
**Insertion Loss excludes reflected power. * 12.5Ω reference to ground

Outline Drawing



Dimensions are in Inches [Millimeters]
3A412 Rev A Mechanical Outline

Anaren
What'll we think of next



Available on Tape and Reel For Pick and Place Manufacturing.

USA/Canada: (315) 432-8909
Toll Free: (800) 544-2414
Europe: +44 2392-232392

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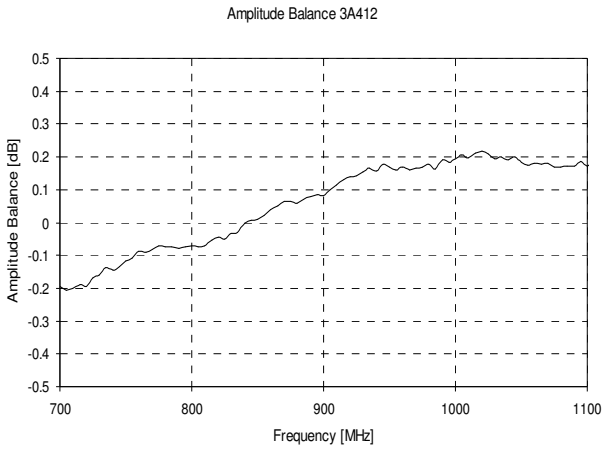
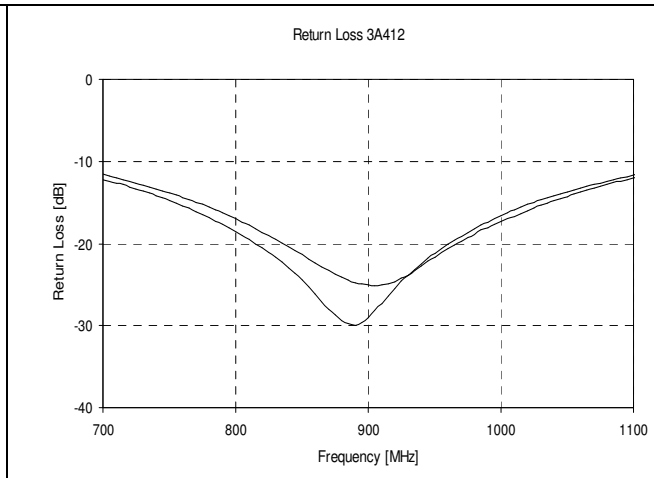
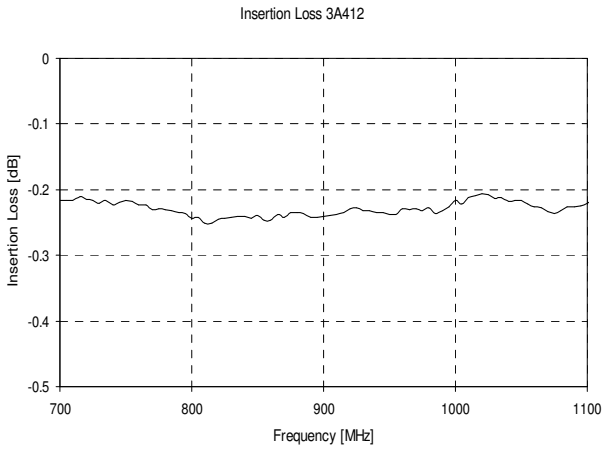
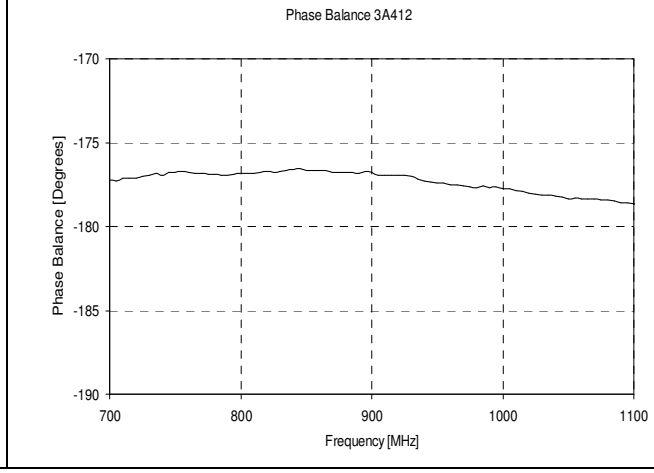
Typical Performance: 700 MHz. to 1100 MHz.

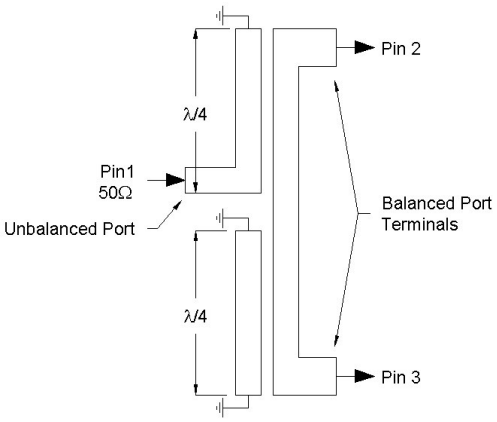




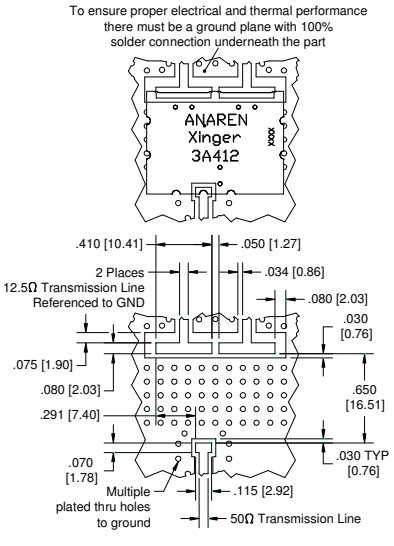




Pin Configuration



Mounting Configuration



Dimensions are in Inches [Millimeters]
3A412 Rev A Mounting Footprint

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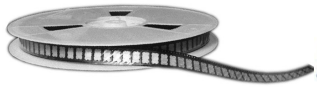

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What'll we think of ne