



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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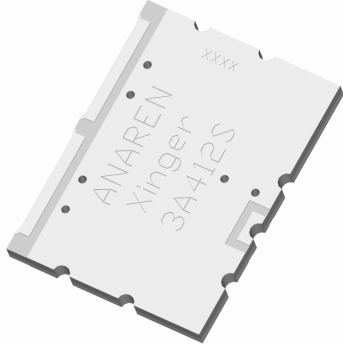
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# Xinger®

## Balun Transformers 50Ω to 12.5Ω Balanced



### Description

The 3A412S 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 3A412S 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 3A412S 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
- Lead Free

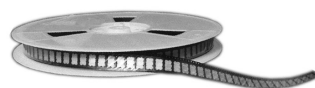
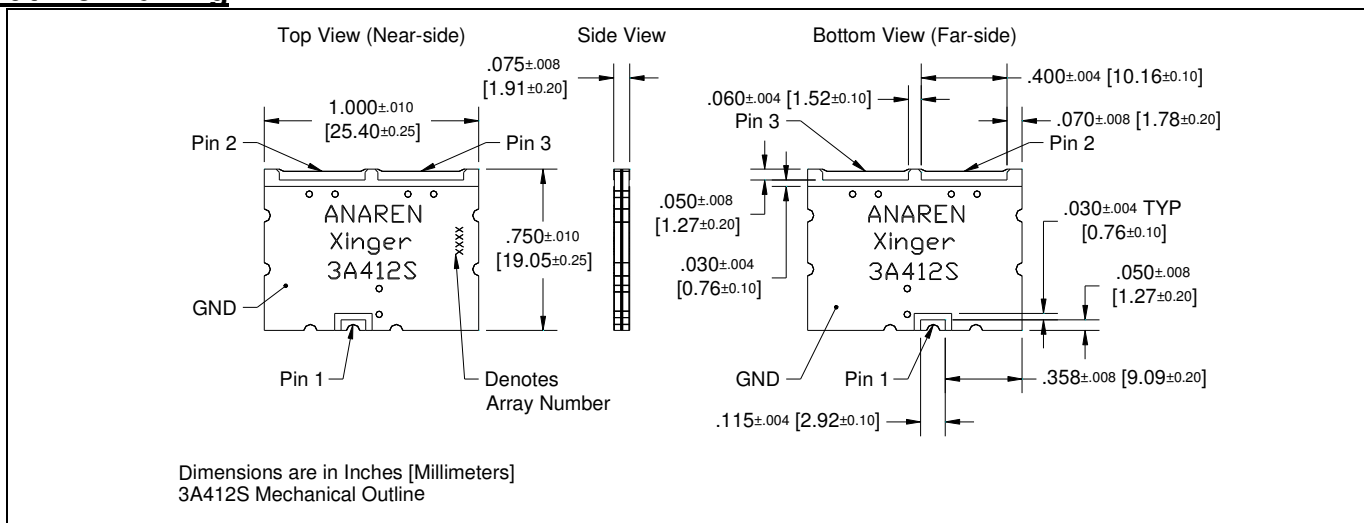
### ELECTRICAL SPECIFICATIONS\*\*\*

Frequency	Unbalanced Port Impedance	Balanced Port Impedance*	Return Loss	Insertion Loss
<i>MHz</i>	<i>Ohms</i>	<i>Ohms</i>	<i>dB min</i>	<i>dB max</i>
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.
<i>dB max</i>	<i>Degrees max</i>	<i>Watts</i>	<i>°C / Watt</i>	<i>°C</i>
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

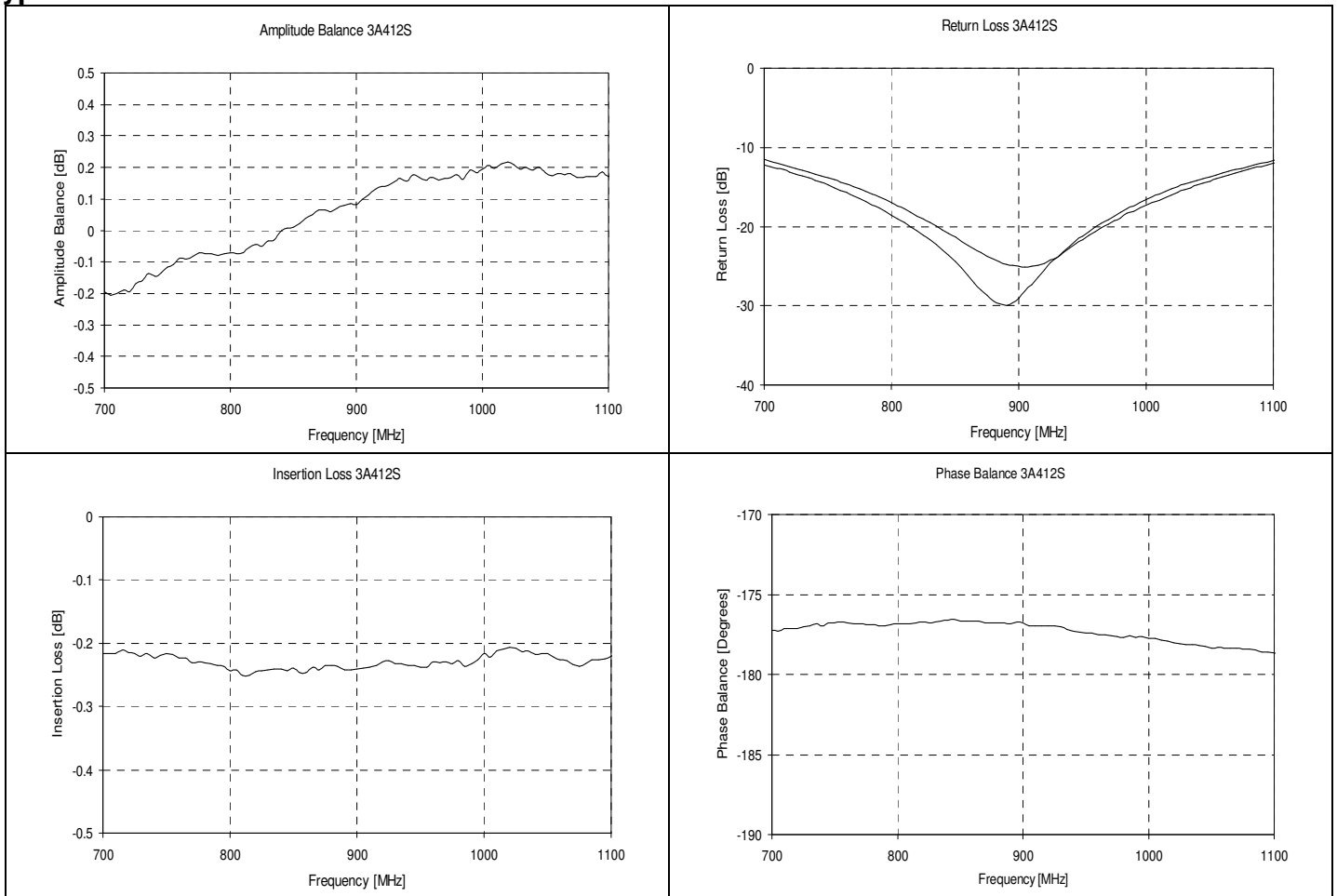
\*\*\*Specification based on performance of unit properly installed on microstrip printed circuit boards with 50 Ω nominal impedance. Specifications subject to change without notice.

\*\*Insertion Loss excludes reflected power. \* 12.5Ω reference to ground

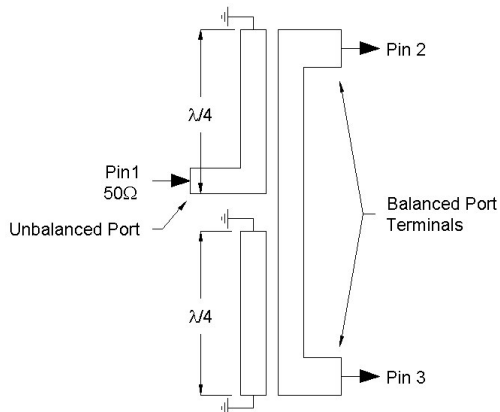
### Outline Drawing



### Typical Performance: 700 MHz. to 1100 MHz.

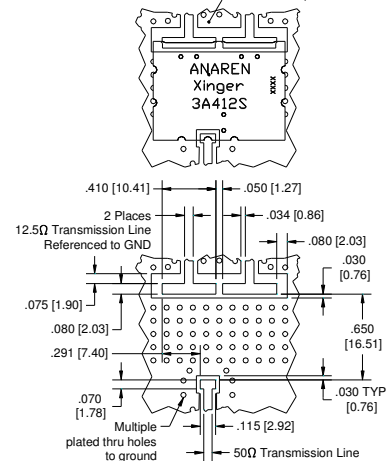


### Pin Configuration



### Mounting Configuration

To ensure proper electrical and thermal performance there must be a ground plane with 100% solder connection underneath the part



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Available on Tape and Reel For Pick and Place Manufacturing.

