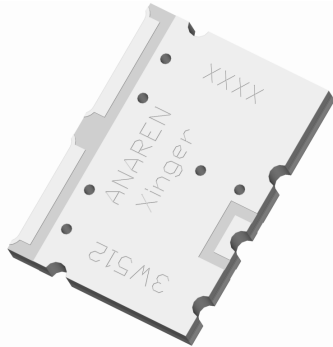


Xinger®

Balun 50Ω to 12.5Ω Balanced



Description

The 3W512 is a low profile balanced to unbalanced transformer designed for push-pull amplifiers in an easy to use surface mount package for PCS, DCS, and UMTS. These compact Xinger® surface mount baluns are ideal for high volume manufacturing and are more reliable and repeatable than traditional baluns. The 3W512 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 3W512 is available on tape and reel for pick and place high volume manufacturing.

Features:

- 1.8 – 2.2 GHz
- 180° Transformer
- 50 Ohm to 12.5+j5.5 Ohm
- Broad Band
- Low Insertion Loss
- High Power
- Even Order Suppression
- Input to Output DC Isolation
- Surface Mountable
- Tape & Reel
- Convenient Package

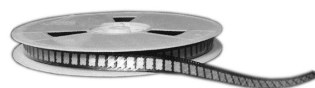
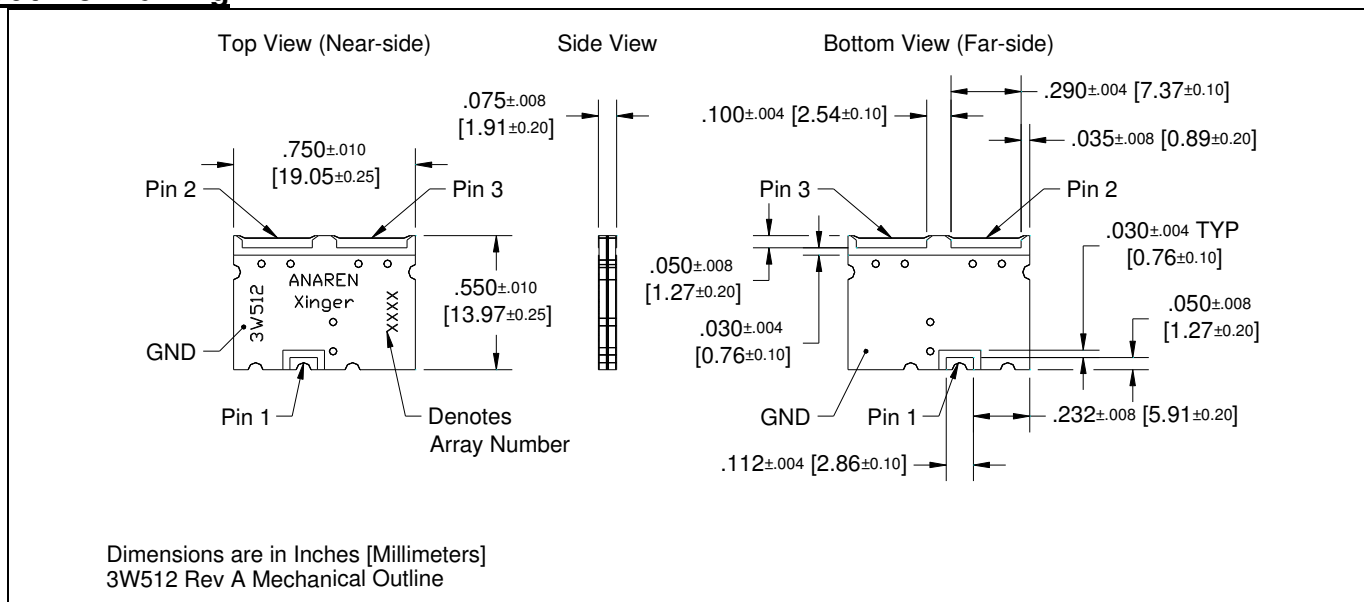
ELECTRICAL SPECIFICATIONS***

Frequency	Unbalanced Port Impedance	Balanced Port Impedance*	Return Loss	Insertion Loss**
GHz	Ohms	Ohms	dB Min	dB max
1.8 – 2.2	50	12.5+j5.5	15	0.40
Amplitude Balance	Phase Balance	Power Handling	⊙JC	Operating Temp.
dB max	Degrees max	Watts	°C / Watt	°C
0.40	180± 5.0	150	11.3	-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.

* 50Ω reference to ground

Outline Drawing



Rev. B

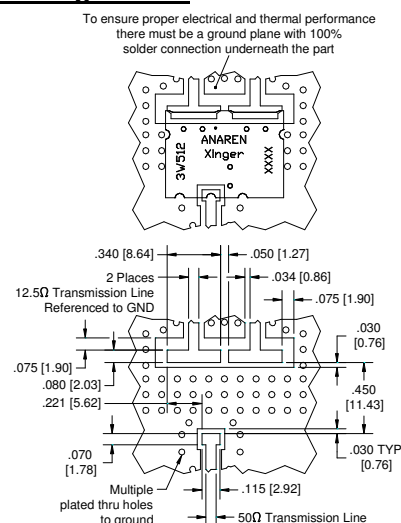
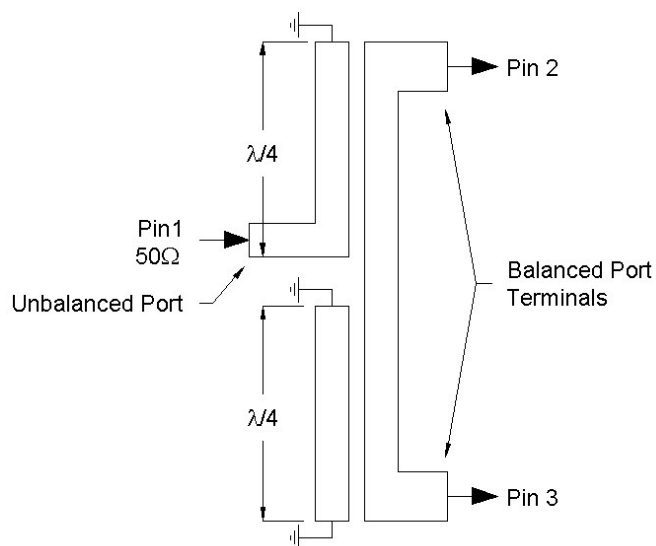
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The figure consists of four subplots arranged in a 2x2 grid, all sharing a common x-axis representing Frequency in MHz, ranging from 1600 to 2400 MHz with major grid lines every 100 MHz.

- Amplitude Balance 3W512:** The y-axis ranges from -0.5 dB to 0.5 dB. The curve starts at approximately -0.2 dB at 1600 MHz, remains relatively flat until 1800 MHz, then rises steadily to about 0.2 dB at 2400 MHz.
- Return Loss 3W512:** The y-axis ranges from -40 dB to 0 dB. The curve starts at -20 dB at 1600 MHz, decreases to a minimum of approximately -40 dB at 1950 MHz, then rises to about -15 dB at 2400 MHz.
- Insertion Loss 3W512:** The y-axis ranges from -0.5 dB to 0 dB. The curve starts at approximately -0.15 dB at 1600 MHz and decreases steadily to about -0.3 dB at 2400 MHz.
- Phase Balance 3W512:** The y-axis ranges from -190 degrees to -170 degrees. The curve is nearly flat, starting at approximately -182.5 degrees at 1600 MHz and ending at about -181.5 degrees at 2400 MHz.

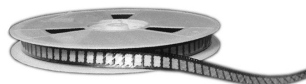
Mounting Configuration:



Dimensions are in Inches [Millimeters]
3W512 Rev A Mounting Footprint

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

Available on Tape and
Reel For Pick and Place
Manufacturing.



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What'll we think of next?