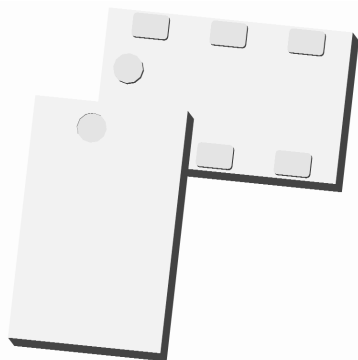


Xinger®

Ultra Low Profile 0805 Balun 75Ω to 75Ω Balanced



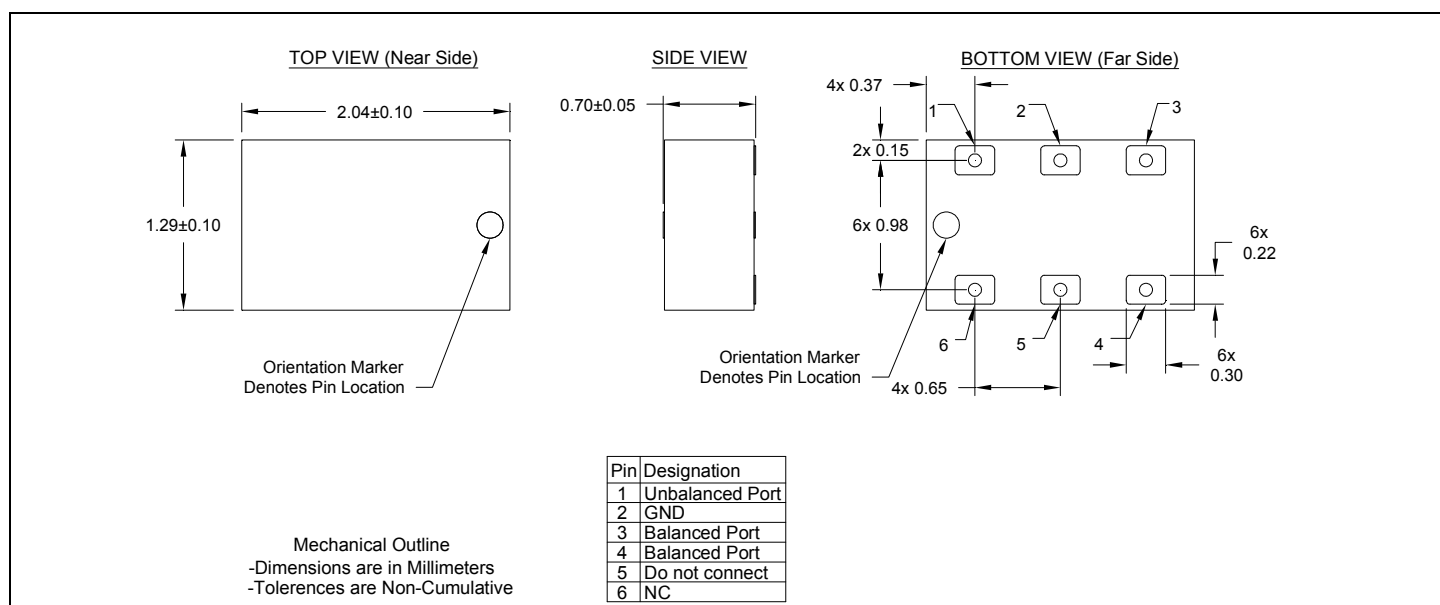
Description

The B0225J7575A00 is a low profile sub-miniature balanced to unbalanced transformer designed for differential inputs and output locations on next generation wireless chipsets in an easy to use surface mount package covering the DVB-T, DVB-C and DVB-S broadcast frequencies. The B0225J7575A00 is ideal for high volume manufacturing and is higher performance than traditional wire wound and lumped element baluns. The B0225J7575A00 has an unbalanced port impedance of 75Ω and a 75Ω balanced port impedance. This transformation enables single ended signals to be applied to differential ports. The output ports have equal amplitude (-3dB) with 180 degree phase differential. The B0225J7575A00 is available on tape and reel for pick and place high volume manufacturing.

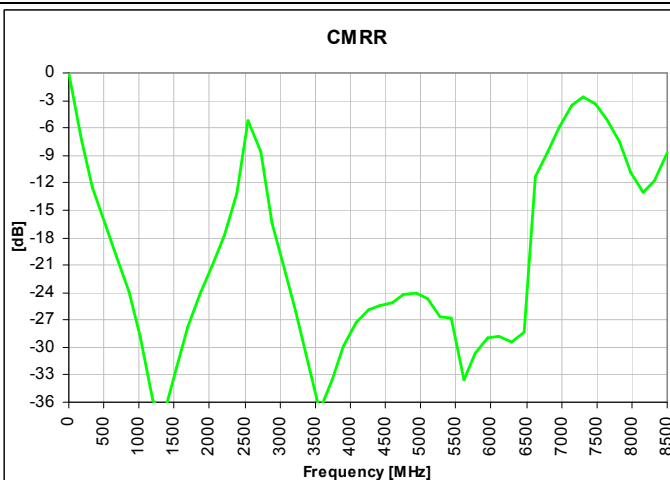
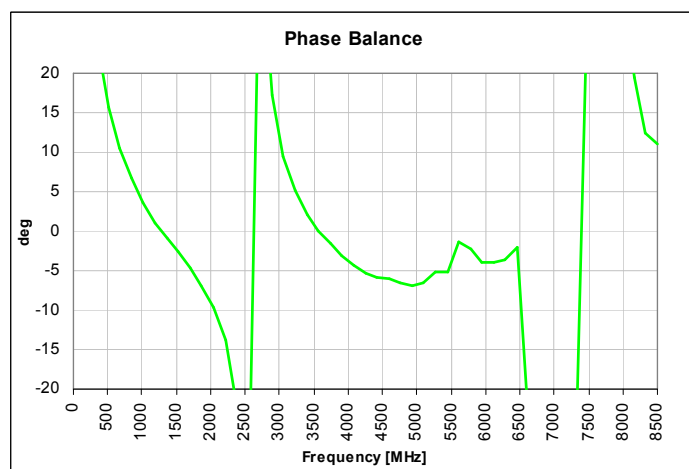
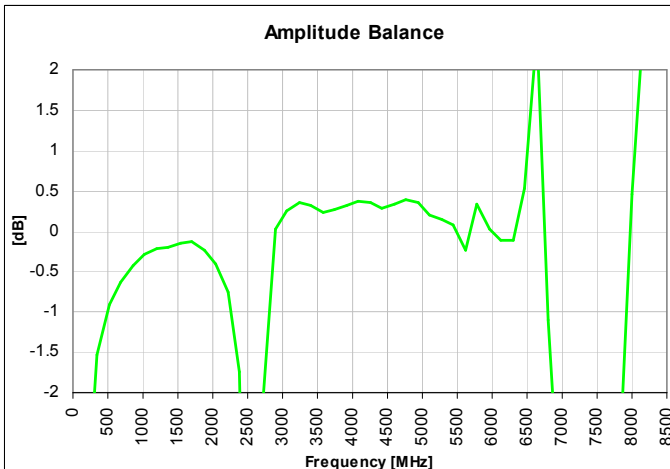
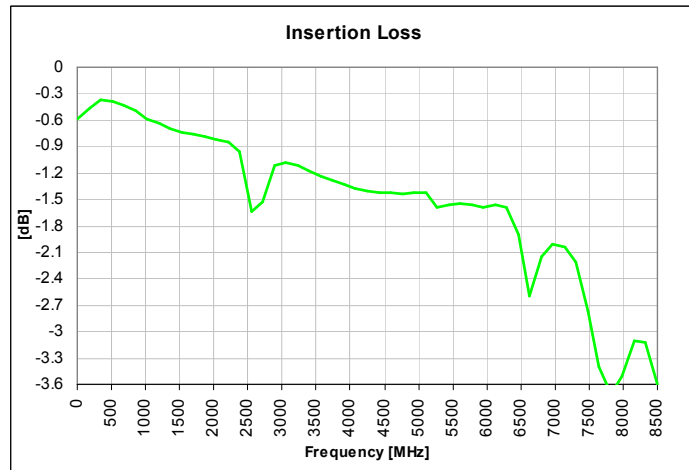
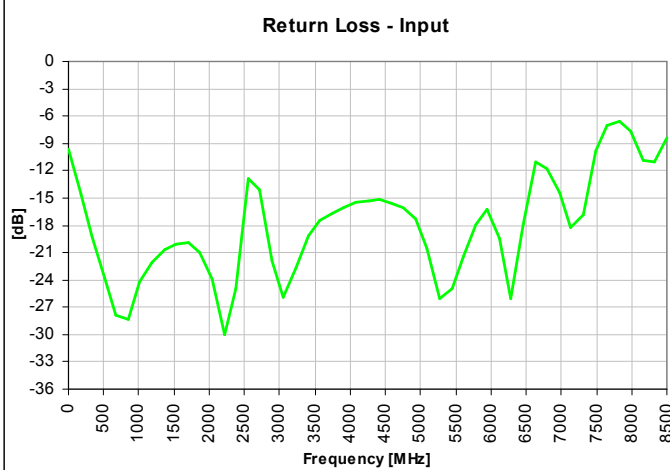
Detailed Electrical Specifications: Specifications subject to change without notice.

| Features: | Parameter | Broadband | | | Narrowband | | | 25°C Unit |
|--------------------------|---------------------------|-----------|-----|------|------------|-----|-----|-----------|
| | | Min | Typ | Max | Min | Typ | Max | |
| • 200 – 2500 MHz | Frequency | 200 | | 2500 | 350 | | 550 | MHz |
| • 0.7mm Height Profile | Unbalanced Port Impedance | | 75 | | | 75 | | Ω |
| • 75 Ohm to 2 x 37.5 Ohm | Balanced Port Impedance | | 75 | | | 75 | | Ω |
| • DVB-T, DVB-C & DVB-S | Return Loss | 14 | 16 | | 17 | 20 | | dB |
| • Low Insertion Loss | Insertion Loss* | | 0.9 | 1.1 | | 0.4 | 0.5 | dB |
| • Surface Mountable | Amplitude Balance | | 3.0 | 3.2 | | 1.4 | 1.6 | dB |
| • Tape & Reel | Phase Balance | | 38 | 40 | | 24 | 26 | Degrees |
| • Non-conductive Surface | CMRR | | 8 | | | 13 | | dB |
| • RoHS Compliant | Power Handling | | | 0.5 | | | 0.5 | Watts |
| | Operating Temperature | -55 | | +85 | -55 | | +85 | °C |

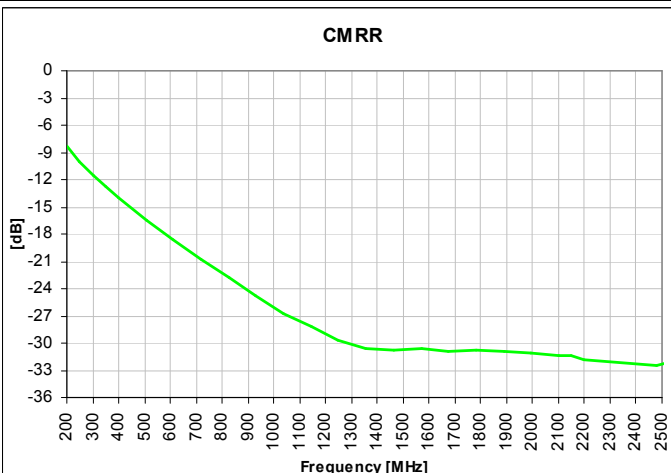
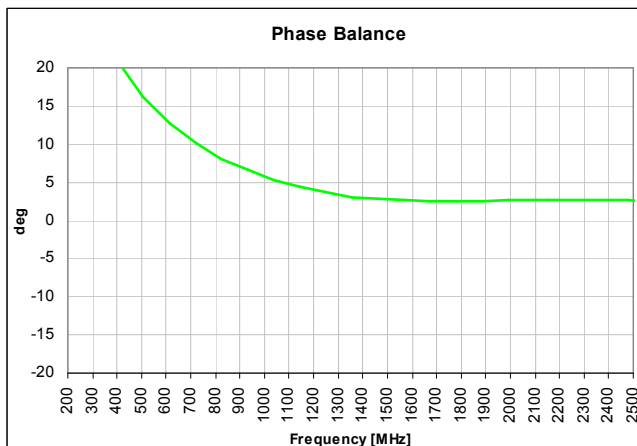
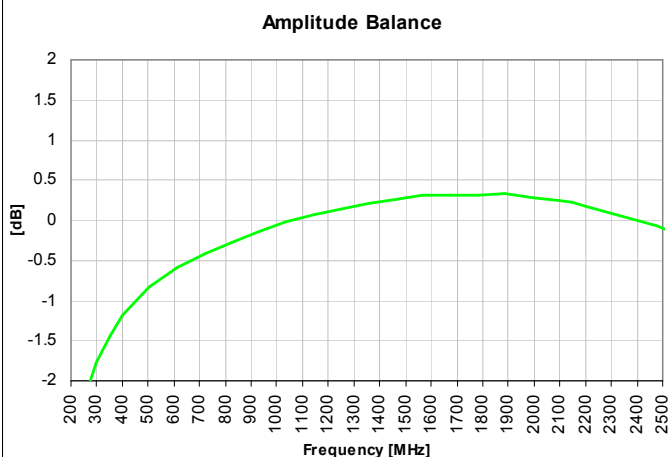
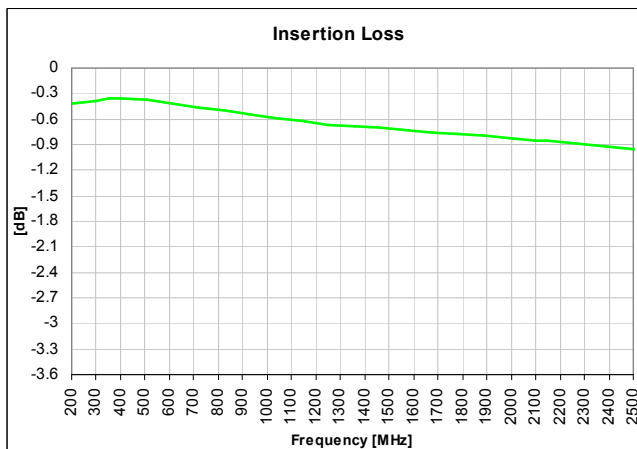
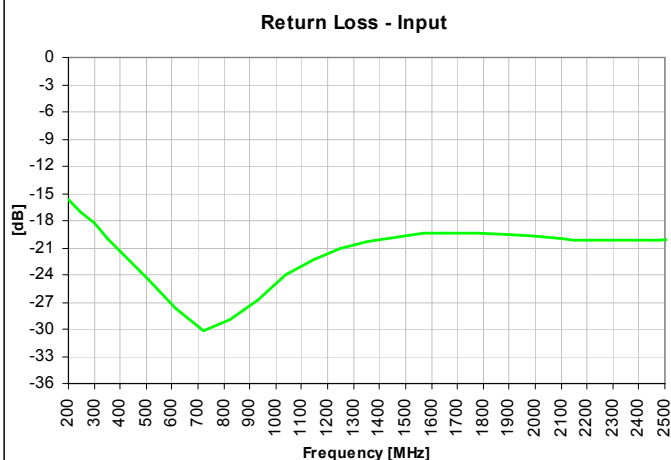
* Insertion Loss stated at room temperature (Insertion Loss is approximately 0.1 dB higher at +85 °C) Outline Drawing



Typical Broadband Performance: 0 GHz. to 8.5 GHz.



Typical Performance: 200 MHz. to 2500 MHz.

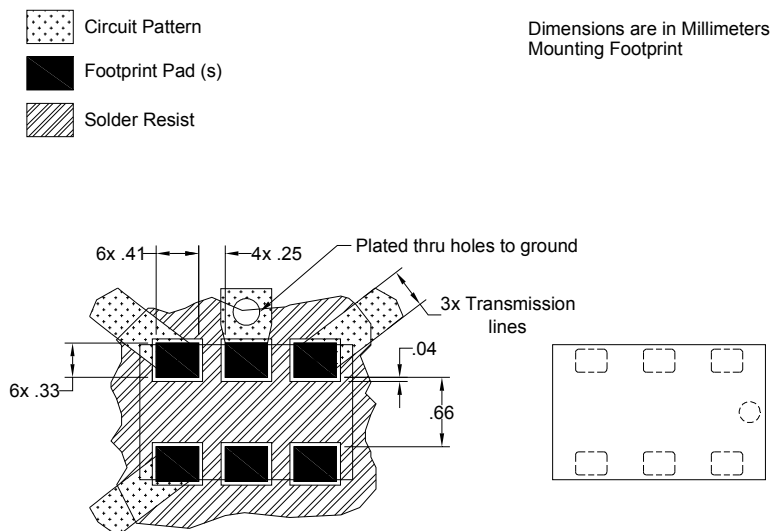


Mounting Configuration:

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 organic PTFE based composites which possess excellent electrical and mechanical stability. Xinger components are compliant to a variety of ROHS and Green standards and ready for Pb-free soldering processes. Pads are Gold plated with a Nickel barrier.

An example of the PCB footprint used in the testing of these parts is shown 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.



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.

