Low Impedance Balums

Anaren Microwave announced the introduction of three new high-performance low impedance Xinger baluns used by power amplifier designers worldwide. The new Xinger baluns are designed to be surface mounted by automatic assembly equipment onto a printed circuit board, eliminating the of custom fitting coaxial baluns. Plus, the surface mount Xinger baluns are significantly smaller than a conventional printed microstrip balun.
The new low impedance Xinger baluns, 3A412, 3A512 and 3W512, can take an unbalanced input signal of 50(and split it into a balanced output signal of 12.5(that is then fed into a push-pull transistor pair. This allows the transistors to work in parallel, with a fairly simple matching network. Xinger baluns are currently available in the 800-1000 MHz band (3A412), 1400-1600MHz band (3A512) and 1800-2200 MHz band (3W512). Each of the three new Xinger baluns has a maximum insertion loss of 0.3 dB, a minimum return loss of 15 dB, an amplitude balance of &#177 0.2 dB and a phase balance of 180 degrees &#177 5 degrees.
The Xinger baluns are made from a low loss, ceramic loaded Teflon material that is thermally compatible with PCB materials such as FR4 polyamide and other commonly used substrate materials. Because these Xinger baluns do not require any manual operations in the manufacture or installation, the human element is removed and a more robust and reliable push-pull amplifier can be realized.

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