ULTRA WIDE-BAND 1.0 TO 40 GHz AMPLIFIERS WITH INTEGRATED POWER DETECTOR

Ciao Wireless, Inc. has introduced a line of ultra-broadband low noise amplifiers with instantaneous ultra-wide band frequency coverage over 1.0 to 40.0 GHz making it suitable for multiple communication band applications.

This product line features multiple gain options including 20 dB, 25 dB, 30 dB and 35 dB designs available with flat gain response (typically <+/- 3.0 dB over the band). The output power is typically at or above +15 dBm over the band with a two-tone ICP3 of +23 dBm and non-harmonic spurious levels better than 60 dBc. All units are well matched with Input VSWR typically 1.6:1 over the band (2.3:1 MAX) and the Output VSWR typically 1.8:1 (2.3:1 MAX). Noise Figure levels are typically as low as 4.0 to 5.0 dB over the operating band at +23 DEG C.

The design features an integrated output power detector that covers 10 MHz to 40.0 GHz with flexibility such that the output voltage can be conditioned to meet the customer's exact detector voltage levels vs output power. The detected output is scalable up to a 10-dB dynamic range with very repeatable performance and settling times typically 50 μ S or less. The amplifier / integrated detector assembly features a very small footprint with hermetic sealing available. This design is qualified for use in all commercial and high-rel applications. Units can be ordered without the output detector if only the amplifier is desired or the detector can be ordered separately as well without the amplifier function if your application requires a small, competitively priced power detector over 10 MHz to 40 GHz. The detector function can be optimized over narrower bands of interest.

The nominal operating temperature range is -20 to +70 DEG C but it can be optimized for alternate operating conditions. These units operate from a +12 to +15VDC supply and as standard, include reverse polarity protection, integrated voltage regulation as well as hermetic feed-thru's and 2.9-mm connectors.

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