

LNA Boosts Signals From 4 To 12 GHz

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A line of low-noise amplifiers (LNAs) has been expanded with the addition of a compact coaxial unit for analog signal processing from 4 to 12 GHz, model AMF-5F-04001200-12-10P from [MITEQ](#). The maximum noise figure across that frequency range is a mere 1.2 dB, although the typical performance is closer to 1 dB. The amplifier provides more than 39-dB small-signal gain across its frequency range, maintaining gain flatness of ± 1.5 dB. This broadband amplifier generates +10-dBm output power at 1-dB compression, with typical third-order intercept (IP3) of +20 dBm. The maximum input and output VSWR is 2.0:1.



The compact LNA, which measures only 0.89×0.64 in. (when measured without the connectors), is equipped with field-replaceable SMA connectors. It is designed for operating temperatures from -40 to $+75^\circ\text{C}$ and draws maximum current of 250 mA from a single +15-VDC supply. Standard models are supplied in an aluminum alloy housing which is light in weight, although one version is also available in a hermetic housing. In addition, there is an RoHS-compliant version with a number of different power and gain options.

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