



# MILLIMETER WAVE AMPLIFIERS

## FEATURES:

- Solid State
- Low cost
- Highly reliable
- Small size
- Flexible configurations

## DESCRIPTION:

PLAMIC Millimeter Wave Amplifiers in the 18 to 40 GHz range utilize state-of-the-art Transferred Electron Devices and circuitry in practical, reproducible combinations to yield highly versatile, low noise and medium power amplifiers. Either microstrip integrated circuit or waveguide techniques are utilized for amplifier construction depending upon bandwidth-frequency requirements and customer preference.



## APPLICATIONS:

These amplifiers are suitable for a wide range of applications including TWTA replacements, ECM and ESM systems, telecommunications, radar and others. They can be easily combined with other components such as filters, switches, couplers, detectors to form a single integrated subsystem. Their multistage configurations make them extremely flexible with respect to gain level and size-shape considerations.

## PRELIMINARY SPECIFICATIONS

<b>Bandwidth:</b>	Amplifiers are available with bandwidths to 45% in the 18 to 40 GHz range.
<b>Gain Levels:</b>	Gains to 40 dB are accomplished with multistage amplifiers. (A rough rule of thumb with moderate bandwidths is 8 to 9 dB per stage).
<b>Flatness:</b>	Maximum ripple levels of $\pm 5\%$ of gain level are typical for moderate bandwidths (to 15%), $\pm 7.5\%$ for wideband amplifiers (to 30%) and $\pm 10\%$ for full band amplifiers (to 45%). Techniques are available for reducing this ripple level in medium power applications.

**PLAMIC MEANS MIC**

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