

GaAs FET Preamplifiers Single and dual

Angle Linear

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Angle Linear has been producing GaAs FET preamplifiers for over eighteen years. Primarily used in commercial applications, these preamplifiers represent the best of present day technology in receiver front end design.

Common port inductance, an integral part of every amplifier design, yields excellent input and output return losses while maintaining the low noise figure characteristics of GaAs FET devices and enhancing stability.

Angle Linear guarantees unconditional stability of every preamplifier. There are no stability problems when cascading our preamplifiers with Hi-Q band pass filters in repeater and receiver multicoupler applications. Filter-duplexer response curves are not altered by the input and output characteristics.

Useable bandwidth for noise figure, gain and return loss are typically 10 percent at the operating frequency by design. Preamplifiers are available on any frequency up to several GigaHertz.

Output compression levels are typically +12 dBm and 3rd order intercepts are typically +24 dBm. Higher level units are available, see our "HY" series of amplifiers.

Noise figure is typically 0.6 dB below 500 MHz, 0.7 dB to 1 GHz, 0.8 dB to 1500 MHz and 0.9 dB to 2 GHz.

Gain is typically: 18 dB below 300 MHz; 15 dB to 510 MHz; 13 dB to 850 MHz; and 12 dB to 1.3 GHz and 12 dB to 2 GHz; 11 db to 2.4 GHz. Input and output return loss are typically greater than 10 dB. Dual stage amplifiers are available above 800 MHz and have twice the gain of the single stage preamplifiers.



Every preamplifier has over and reverse voltage protection. External and internal high voltage transient suppressors provides 40kV, 1 micro sec. pulse protection. Internal voltage regulation permits operation from +9 to +18 VDC with higher voltage options available. Filtering on the DC terminal provides >80 dB attenuation from .5 MHz to several GigaHertz. DC current requirement is typically 30 mA per amplifier stage.

Construction is rugged: an irradiated aluminum enclosure with stainless steel hardware throughout. Twenty screws attach the covers and give maximum shielding for the most hostile RF environments. Connectors have ptfе (Teflon) dielectric with gold pins and are available in type N, SMA and TNC. Dimensions: 1.5"x 2.5"x 0.8". Mounting and connector positions give maximum versatility for high density rack panel mounting.

To order: specify center frequency of operation (MHz), G suffix for GaAs FET, type of connector, Example: 813-GNT, "T" suffix = top connector mounting, 813 MHz plus and minus 40 MHz from center frequency, GaAs FET device, N connectors. Dual stage models, add "2X" prefix, available from 800 to 2500 MHz only, 10 % band width.
Connectors: N = N, T = TNC, S = SMA

Angle Linear also produces: Receiver Multicouplers, Preselectors, Window Filters, Duplexers, Notch Filters, FET preamplifiers, Bias Tees, and does developmental work in receivers.
Specifications subject to change.