

# High Level PHEMT Preamplifier +40 dBm IP<sub>3</sub> 0.8 dB noise Figure 400 to 510 MHz

**Angle Linear**

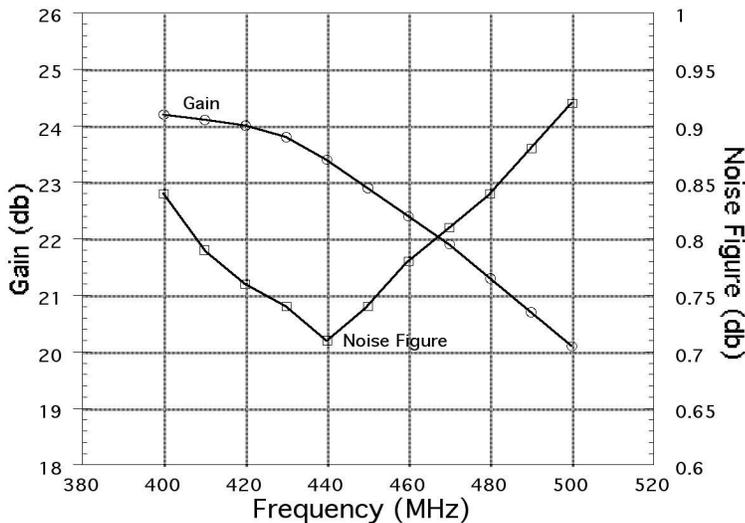
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Angle Linear, in it's desire to continue producing the best of present day technology in receiver front end design, has now introduced a higher level, low noise figure, hybrid combined redundant pair PHEMT preamplifier. This amplifier offers the high output intercept of silicon bipolar amplifiers but with the low noise figure of medium power PHEMTs.

Hybrid combiners and common port inductance yield excellent input and output return losses while maintaining the low noise figure characteristics of PHEMT devices and enhancing stability.

Output compression level is typically +27 dBm and 3rd order intercept is typically +40 dBm. Input intercept level is typically greater than +18 dBm. Gain is about 24 dB at 400 MHz, 22 dB at 450 MHz. Noise figure is 0.8 dB  $\pm$  0.2 dB over this range. Other frequency ranges are available. down to 200 MHz. Input and output return losses are better than 16 dB. As always, Angle Linear guarantees unconditional stability of every preamplifier. Each amplifier has it's own independent voltage-current regulator.

HY4050GNE typical performance



External and internal high voltage transient suppressors provide 40kV, 1 micro sec. pulse protection. An Internal voltage pre-regulator permits operation from +11 to +16VDC. An external dropping resistor is recommended for operation from higher voltages up to +35 VDC. DC current requirement is typically 220 mA. Filtering on the DC terminal provides >80 dB attenuation from 5 MHz to several GigaHertz.

Construction is rugged: an irridited aluminum enclosure with stainless steel hardware throughout. Twenty four screws attach the covers and give maximum shielding for the most hostile RF environments.

Tri-Metal plated onnectors have ptfе (Teflon) dielectric with gold pins and are available in type N, SMA, TNC & BNC. Dimensions: 3" x 3" x 0.9". Mounting and connector positions give maximum versatility for high density rack panel mounting. These amplifiers are also available in our line of receiver multicouplers.

Part number: HY4050G +( conn type ) + (conn. Config),  
Connectors: N = N, T = TNC, S = SMA  
Connector configuration: (T) Top, (E) End mounting  
example, with N conn: HY4050GNE, shown in above picture

Specifications subject to change without notice