

GRAND **NATIONAL RADIO**

High Performance RF Solutions by W6KGB

Made Proudly in the USA

Offering highly reliable products for your communications system needs, we specialize in Low Noise, High Dynamic Range receiver front ends. We also specialize in select Amateur-Radio interest products such as the μ MASTR II™ conversion, and custom Power Amplifier builds or conversions. All products are hand crafted for each order. We also offer consultation on system design.

Our products are suited to serve the most demanding commercial, government, and amateur radio applications. With our Receiver System products built upon the proven engineering of Angle Linear, we strive for excellence in all we do. We are a small operation focused on quality rather than cookie-cutter quantity.

Today's LNA have graduated to the era of PHEMTs, replacing GaAsFET devices. PHEMT (pronounced "p-hemt") represents Pseudomorphic High Electron Mobility Transistor. With the advantage of lower noise figures, higher gains and higher output power capability, they've replaced GaAsFETs as the go-to of today's devices. Noise Figures below 1dB are now commonplace. What isn't commonplace are subtle yet important details.

Matched ports through common port inductance exhibit excellent Return Loss (>17dB typical in spec'd range) both in and out. Further, it enhances stability of the amplifier & preserves the low Noise Figure characteristics of the PHEMT device with an efficient noise match. We guarantee unconditional stability of every amplifier turned out. By virtue of their design, connection to high-Q loads does not appreciably affect tuning or stability of the amplifier, nor surrounding devices. Our amplifiers are ideally suited for singular receiver and receiver multicoupler applications alike, and can be cascaded as necessary with various filters or splitters.

We are also authorized to repair legacy Angle Linear products. Note that some may be non-serviceable due to age & device availability. We look forward to solving your communications problems and improving your system. Please contact us to discuss your requirements.

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Shown: PTN442 Standard LNA – Tuned to 442MHz

Typical Parameters:

Gain +17.5dB P1dB +12dBm OIP3 +28dBm

Input Return Loss >17dB Output Return Loss >17dB Reverse Isolation >24.5dB