Power Systems Technology (PST)

Solid State Power Amplifier 1000-3000 MHz, 500 Watts

Model BHED1939-500

Overview

Stellant PST has announced the release of a series of new high power broadband amplifiers covering the frequency range of 1000-3000 MHz. The amplifier is designed using the latest Gallium Nitride (GaN) device technology based in an "AB" linear mode, offering excellent efficiency, high gain, and linear dynamic range.

The amplifier is designed to operate in harsh environments, packaged in self contained rack mountable drawers, which provide air cooling and excellent EMI/RFI protection. Application of this amplifier system is ideal for communications, commercial lab testing, as replacement for high power TWT amplifier systems, and for possible military jammer applications.

The BHED1939-500 delivers full rated power into a 2:1 load VSWR with a maximum input drive level of 1 milliwatt (0dbm). The amplifier is fully protected from excessive input overdrive, high ambient temperature, over-voltage, under voltage, over current, and offers graceful degradation when operating into a poor load VSWR mismatch. Excellent harmonic performance is achieved with the use of push-pull matching networks and 90 degree quadrature combiners. The amplifier system can be remotely controlled with a choice of ETHERNET, RS 232, or RS 422 bus interface. A noise



quieting (blanking) feature is provided and noise power output is reduced to a level of -150dbm/Hz in less then 50 Microseconds. All amplifiers include self contained rugged power supplies; primary AC input is 208VAC (3) phase.

Specifications

Frequency Range: 1000 to 3000 MHz

RF Output Power: 500 Watts minimum

RF Input Power: 1 mW (0dBm) for full power output

Gain @ Rated Power Output: 57 dB minimum

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