Compact, GaN Solid-State Power Amplifiers

CTT, Inc. announces a new family of compact, GaN-based solid-state power amplifiers (SSPAs) operating in the 6.4 to 11.0 GHz frequency range for a wide variety of RF and microwave applications including commercial, industrial and military radar applications. CTT's latest compact SSPA designs offer as much as 160 Watts of Output Power in a compact package.
Engineered specifically to meet the stringent requirements imposed by many modern radar designs, CTT's family of 39 GaN-based power amplifiers (AGN and AGW Series), perform a wide range of functions. Whether the radar is narrowband, wideband or ultra-wideband, operating in pulsed or CW mode, CTT's GaN power amplifiers are an especially attractive choice for new multifunction radar systems that effectively conserve weight, space and power consumption though the combination of several stand-alone radars into a single system.

CTT engineers have developed a proprietary open architecture/common platform of these GaN-based power amplifiers which relies on advanced coupler design and unique substrate material selection. The result is a selection of adaptable, modular amplifiers requiring only a single supply voltage. Both military and commercial configurations can benefit from improvements in: Increased Sensitivity, Reduced Size and Weight, Higher Efficiency, Wider Bandwidth, Reduced Cost, and System Power Efficiency.

CTT's new SSPAs include 15 models for Narrowband applications operating from 7.8 to 10.7 GHz in Continuous Wave (CW) mode. There are 12 models for Narrowband (<10% bandwidth) applications operating from 8.5 to 10.7 GHz in Pulsed mode. For Wideband and Ultra-Wideband applications there are 12 models which operate from 6.4 to 11.0 GHz in CW mode.

CTT Model Number AGN/105-4957-P offers 9.5 to 10.5 GHz frequency operation with operating input power requirements of 13.8 Amps @ +30 Volts DC. Additional specifications include a minimum of +57 dB of Gain, Power Saturation (Psat) performance is 80 Watts, Min. The compact package measures only 4.32 inch (L) x 4.5 inch (W) x 0.68 inch (H). In addition, the new SSPA's "automated friendly" design increases consistency of performance, making design-in more cost effective for system designers and manufacturers alike.

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