C⁴INTERCEPTS

New Amplifer Conquers Threat Emitter Degradation

dB Control's new TWT amplifier offers 300 W minimum continuous wave power and creates greater overall RF power. This ability improves threat emitter signal degradation. (Photo courtesy of dB Control.)

Threat emitters, used to simulate electronic signatures of possible enemy radar, have historically been subject to degradation due to adverse weather. A recent technological breakthrough, however, is changing this. Due to a hub-mounted TWT amplifier developed and manufactured by dB Control (Fremont, Calif.), threat emitters can now simulate multiple threats over a wide band under adverse conditions. The single-unit, hub-mounted TWT amplifier is the first to provide a true 300 W minimum continuous wave power at the output flange over the 6 to 18 GHz bandwidth.

The new amplifier, currently being integrated onto Arcata Associates' (Las Vegas, Nev.) Agile Threat System, enables threat emitters to transmit with less waveguide loss, thereby creating greater overall RF power. Additionally, due to its environmental design, the TWT amplifier can operate in virtually any weather condition.

The amplifier incorporates a number of ruggedized components that are currently in use in military airborne environments. Larry Newbold, dB Controls director of sales notes, "The development of the amplifier was really applications driven, As a result, we identified a tube, from a family of tubes, that has been used in airborne applications for nine years, and were able to get considerably more power than ever before," he said. The traveling wave tube used in the TWT amplifier is manufactured by Teledyne Electronic Technologies (Rancho Cordova, Calif.)

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