Integra Announces New GaN-on-SiC Products

Integra Technologies announced the development of High Voltage Gallium Nitride on Silicon Carbide (GaN on SiC) technology. Integra's world class RF design team has launched two new wideband products the IGN2735M30 and IGN2735M250 and two new narrowband products the IGN2729M400 and the IGN2325CW110.

"GaN technology's inherent low capacitances enable broadband designs that cover both commercial and military Air Traffic Control (ATC) radar bands simultaneously. These new products demonstrate Integra management's commitment to providing innovative devices to our customers." says John Titizian, Integra's founder and president, describing the development effort. "We have years of RF expertise manufacturing high power semiconductors and with our low overhead cost structure we will continue to dominate in both price and performance."

The PN IGN2735M30 operates over the instantaneous bandwidth covering 2.7 GHz to 3.5 GHz in the S-band frequency range. Under 300µs pulse width and 10% duty cycle pulsing conditions it typically supplies a minimum of 35 watts of peak output power. With breakdown voltages approaching 80V the device is characterized at 32V operating voltage providing over 12 dB of gain and 55 % efficiency.

The PN IGN2735M250 operates over the instantaneous bandwidth covering 2.7 GHz to 3.5 GHz in the S-band frequency range. Under 300µs pulse width and 10% duty cycle pulsing conditions it typically supplies a minimum of 250 watts of peak output power. With breakdown voltages approaching 80V the device is characterized at 32V operating voltage providing over 11 dB of gain and 55 % efficiency. The single ended device is housed in a ceramic flanged package providing excellent thermal advantages.

Intended for commercial S-band Air Traffic Control (ATC) Radars, the PN IGN2729M400 operates over the instantaneous bandwidth covering 2.7 GHz to 2.9 GHz in the S-band frequency range. Under 300µs pulse width and 10% duty cycle pulsing conditions it typically supplies a minimum of 400 watts of peak output power. The single ended device provides over 12 dB of gain and 55 % efficiency.

The device is housed in a ceramic flanged package providing excellent thermal advantages over plastic packaged devices.

The PN IGN2325CW110 operates over the instantaneous bandwidth covering 2.3 GHz to 2.5 GHz in the S-band frequency range. Operating under continuous wave (CW) conditions, the device supplies more than 125W of output power while providing 12 dB of gain and 60 % efficiency. The single ended device is housed in a ceramic flanged package providing excellent thermal advantages.

Samples and Availability
The IGN2735M30 and IGN2735M250 are available immediately for sampling. The IGN2729M400 and IGN2325CW110 will be available for sampling in Q3 2011. For pricing and delivery please email sales@integratech.com [1].

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