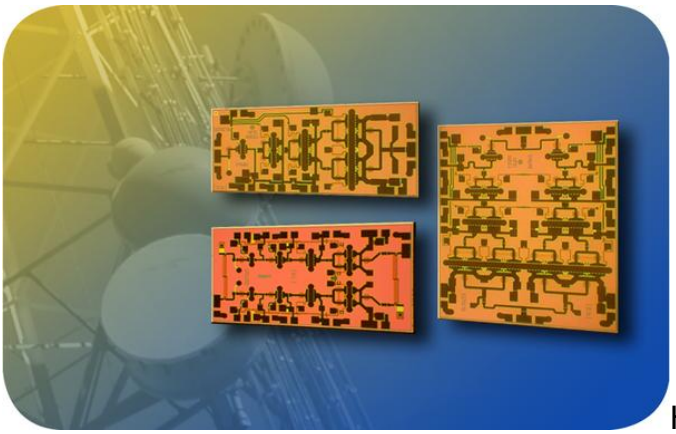
New High Power, High Linearity Power Amplifier Die Products



Hittite Microwave Corporation has launched three new power amplifier die products which are ideal for microwave and millimeterwave radios, Ka-band VSAT and military & space applications from 27.5 to 46.5 GHz.

The HMC1014 is a four stage GaAs pHEMT MMIC Medium Power Amplifier die which operates between 33.5 and 46.5 GHz. The amplifier provides 21 dB of gain, +27.5 dBm of saturated output power, and 27% PAE (Power Added Efficiency) from a +6V supply. With up to +35 dBm OIP3, the HMC1014 is ideal for high linearity applications in military and space as well as point-to-point and point-to-multi-point radios.

The HMC1024 and the HMC1029 are four stage GaAs pHEMT MMIC 1 and 2 Watt Power Amplifiers which operate from 27.5 to 33.5 GHz and from 27 to 37 GHz respectively. The HMC1024 provides 24 dB of gain, +40 dBm OIP3, +31.5 dBm of saturated output power, and 29% PAE from a +6V power supply. The HMC1029 provides 24 dB of gain,+42 dBm OIP3, +35 dBm of saturated output power, and 25% PAE from a +6V power supply. Both amplifiers exhibit excellent linearity and are optimized for high capacity microwave radio systems and Ka-band VSAT applications. The high output power of these amplifiers in combination with high gain makes them excellent candidates for the final power stage in a microwave transmitter chain.

The HMC1014, HMC1024 and HMC1029 feature I/Os that are internally matched to 50 Ohms and require no external components to facilitate integration into multichip-modules (MCMs). These powerful new amplifier die products complement the widest selection of microwave and millimeterwave communication solutions available from any OEM. Die samples are available from stock and can be ordered via the company's e-commerce site or via direct purchase order. Released data sheets are available on-line at www.hittite.com [1].

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[1] http://www.hittite.com