

M/A-COM Technology Solutions Inc. (“MACOM”), a leading supplier of high performance analog RF, microwave, millimeterwave and photonic semiconductor products, released a Digi-Key product training module featuring their new family of Ka-Band high linearity power amplifiers: the MAAP-011246, MAAP-011139, and the MAAP-011140.

Satellite internet connectivity, high speed datalinks and broadband internet access on the move all require greater bandwidth, ease of access and improved costs from next generation satellite communication systems. MACOM offers a complete chipset solution for Ka-Band satellite communication (SATCOM) applications, which provides customers with key features that include full surface-mount packaging, superior linear performance power amplifiers with 2, 4 and 6-watt output power, and discrete mixer and gain block amplifiers available in ultra-compact packaging. Specifically, MACOM’s new Ka-Band high linearity power amplifiers enable next generation Ka-Band SATCOM applications by providing customers with superior linearity performance, gain, efficiency and surface mount assembly features.

The MAAP-011246 is a 2 watt, 4 stage power amplifier operating over the 27.5-31.5 GHz frequency range. This device boasts excellent linearity in a surface mount assembly, 5 mm QFN package. The MAAP-011246 provides customers with a high gain of 24 dB and 29% efficiency while biased at 6V, and also offers greater than 27 dBm Pout/tone while maintaining IM3 levels of -25 dBc. This power amplifier can be used as a power amplifier stage or as a driver stage in high power applications, and is targeted for VSAT communications applications and 28 GHz point to point radio.

The MAAP-011139 is a 4 watt power amplifier operating in the 29-31 GHz frequency range that provides customers with twice the linear performance as competing alternatives. When compared at an IM3 level of -30 dBc to alternative 4 watt parts, the MAAP-011139 boasted an output power of 28 dBm per tone, versus an average of 23 or 23.5 dBm from the other devices. This two-times linearity performance allows the MAAP-011139 to replace two equivalent or competing alternatives with a single device while operating in an overall more efficient mode. Additionally, this device provides customers with 24 dB of linear gain and 23% power added efficiency, and is offered both as bare die and in a 5x5 mm 32-lead QFN package.

The MAAP-011140 is a 6 watt power amplifier operating over the 27.5-30 GHz range, and is ideally suited for high data density Ka-Band SATCOM. Currently offered in bare die format, the MAAP-011140 delivers 24 dB of linear gain, 23% power added efficiency and greater than 33 dBm Pout/tone while maintaining IM3 levels of -24 dBc. The efficiency performance allows customers to operate remote VSAT terminals with lower power consumption and higher performance than competitive offerings. The 6 watt saturated output power enables the MAAP-011140 to provide customers with greater transmission power and signal strength performance in critical military or civilian datalink applications.

With their complete chipset solution for Ka-Band SATCOM applications, MACOM has the comprehensive portfolio to support SATCOM industry demands for greater bandwidth and ease of access at improved costs. Boasting high linearity and superior packaging options, MACOM’s new power amplifier solutions will continue to position MACOM as the leading supplier of semiconductor content to customers worldwide.

For more information and to access MACOM’s Ka-Band Product Training Module, click here:

<http://www.digikey.com/suppliers/us/macom.page?lang=en>