High Performance C-Band Devices Optimized for both High Gain and Power Added Efficiency

Toshiba America Electronic Components, Inc. (TAEC*) and its parent company, Toshiba Corporation, announced the expansion of its gallium arsenide field effect transistor (GaAs FETs) lineup with a new “EL” series of high performance C-Band devices optimized for both high gain and power added efficiency. The “EL” high gain GaAs FETs are targeted for microwave radios and solid-state power amplifiers (SSPAs). The first three devices in the “EL” series are 16W GaAs FETS targeted for three different C-Band frequency ranges. The TIM6472-16EL operates in the 6.4 GHz to 7.2 GHz range, with output power of 1dB gain compression point (P1dB) of 42.5dBm (typ.), power gain at 1dB gain compression point (G1dB) of 11.0dB (typ.) and power added efficiency of 37 percent. Compared to the similarly rated 16W device in the SL series, TIM6472-16SL, it offers a 4.0dB increase in gain (typ.), and an increase of 1.5dB compared to the similarly rated 16W UL device, TIM6472-16UL. The second new device, TIM7179-16EL operates in the 7.1GHz to 7.9 GHz range, with P1dB of 42.5dBm (typ.), G1dB of 10.5dB (typ.) and power added efficiency of 37 percent. Compared to the similarly rated 16W device in the SL series, TIM7179-16SL, it offers a 4.0dB increase in gain (typ.), and an increase of 2.0dB compared to the similarly rated 16W UL device, TIM7179-16UL. The TIM7785-16EL operates in the 7.7 GHz to 8.5 GHz range, with P1dB of 42.5dBm (typ.), G1dB of 10.0dB (typ.) and power added efficiency of 36 percent. Compared to the similarly rated 16W device in the SL series, TIM7785-16SL, it offers a 4.5dB increase in gain, and an increase of 1.5dB compared to the similarly rated 16W UL device, TIM7785-16UL.

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