

TOSHIBA SUPPORTS A BROAD RANGE OF COMMUNICATIONS APPLICATIONS WITH GROWING LINE-UP OF ULTRA-COMPACT RADIO FREQUENCY COMPONENTS

Toshiba Expands Family of Cell Packs with Devices for Cable TV Tuners, Cable Modems and Bluetooth Applications

PHOENIX, May 21, 2001 — Building on its expertise in the development of highly-integrated radio frequency (RF) integrated circuits (ICs), Toshiba America Electronic Components, Inc. (TAEC)* broadened its portfolio of ultra-compact RFICs with new devices designed for use in cable TV tuners, cable modems and Bluetooth™ applications. Called Cell Packs, these devices provide a convenient way for designers to implement a variety of important communications functions.

Toshiba's growing Cell Pack lineup, which now includes more than 20 products, helps reduce design time, component count and board space by allowing RF engineers to use one Cell Pack instead of multiple discrete devices.

“Toshiba offers Cell Packs for virtually any communications application, providing a comprehensive resource for RF designers,” said Ed Monzon, senior business development manager, Microwave and RF Devices for TAEC. “Our broad RF Cell Pack family is the ideal solution for today's mobile-communications and Bluetooth-equipped devices, as well as for other communications applications such as cable tuners which integrate multiple functions in a compact form factor.”

Technical Features

Toshiba's new tuner IC Cell Packs, designated the TA4107F and the TA4018F, are designed for cable TV tuner and cable modem applications. Incorporating a double balanced mixer and an oscillator buffer amplifier, the TA4107F features excellent intermodulation distortion (IM) 2 and IM3 characteristics (High IP3out = +12dBm) which results in low distortion by adjoining signals. The TA4018F differential circuit type Voltage Gain Control Amplifier is another addition to the Cell Pack lineup for cable applications. It features excellent IM2 and IM3 characteristics (IP3out = +14dBm), and eliminates the need for a band pass filter (BPF) near the demodulation IC. Also for tuner applications, the TA4019F is an intermediate frequency power amplifier (IF PA). The IF PA also offers excellent IM2 and IM3 characteristics (IP3out = +21.5dBm), a low noise figure of 8dB (at Vcc=5V) and gain control, which gives designers added flexibility in selecting the output power level.

Toshiba's power amplifier Cell Pack, the TG2006F, is ideal for long-range 2.4 GHz Bluetooth applications. It features lower current consumption (total current typically 130mA) to extend the operation of the Bluetooth device, as well as a small and thin 8-pin package that is ideal for compact form factors.

Specifications, Pricing and Availability

Cell Pack Function	Part Number	Package	Pricing	Availability
Mixer & Buffer Amplifier for Tuner Circuit	TA4107F	8-pin SM8 (4.0x2.9x1.1mm)	\$0.40 for samples / \$0.38 for production quantities of 30,000 pieces	MP – Now
Differential Amplifier for Tuner Circuit	TA4018F	8-pin SM8 (4.0x2.9x1.1mm)	\$0.60 for samples / \$0.57 for production quantities of 30,000 pieces	MP – Now
Gain Control Amplifier for Tuner Circuit	TA4019F	8-pin SM8 (4.0x2.9x1.1mm)	\$0.41 for samples / \$0.39 for production quantities of 30,000 pieces	MP – Now
Bluetooth/Power Amplifier	TG2006F	8-pin SM8 (4.0x2.9x1.1mm)	\$1.65 for samples / \$1.53 for production quantities of 15,000 pieces	MP – Now

*** About TAEC**

Toshiba America Electronic Components, Inc. (TAEC) offers the industry's broadest line-up of semiconductor, display and storage solutions for the computing, wireless, networking and digital consumer markets. Combining quality and flexibility with design engineering expertise, TAEC brings advanced next-generation technologies to its OEM customers.

TAEC is an independent operating company owned by Toshiba America Inc., a subsidiary of the \$54 billion (FY 1999 recorded sales) Toshiba Corp., the second largest semiconductor company worldwide in terms of global sales for the year 2000. Toshiba Corp. is a world leader in high-technology products with more than 300 major subsidiaries and affiliates worldwide. For additional company and product information, please visit TAEC's web site at chips.toshiba.com. For technical inquiries, please e-mail Tech.Questions@taec.toshiba.com.

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