



Toshiba sets new standard with advanced high-efficiency Audio Power Amplifier

Highly integrated 4-channel linear audio amp uses patented technology to reduce power consumption by 90%

Düsseldorf, Germany, 07 December 2017 – Toshiba Electronics Europe has developed a 4-channel, high-efficiency class-AB linear power amplifier IC that delivers high-quality sound reproduction for car audio applications while significantly reducing power consumption.

Offering efficiency comparable to class-D digital amplifiers, the TCB701FNG IC uses patented technology to operate at just 10% of the power of conventional class-AB amplifiers (under normal operating conditions: 0.5W to 4W). BoM cost is around half that of more expensive Class-D alternatives as no EMI or low-pass filtering is required.

As well as highly efficient, low-noise operation, the TCB701FNG incorporates an extended set of self-diagnosis capabilities that can monitor and report various error states via the I²C bus. These capabilities include full-time fault detection of output DC offset. This prevents speaker burnout and improves overall reliability.

Additional functionality includes anti high-frequency noise, protection against output cross connection and over- and under-voltage, three levels of over-temperature detection, standby/mute control and GSM noise suppression.

Toshiba's new IC is supplied in a 36-pin HSSOP package and can be used in both power amplifier and line drive mode. The device can operate with a supply voltage of 6V to 18V, supports 49W x4 channels, and is compatible with speakers rated to 2Ω. Output noise voltage is just 60μV_{rms}.

Sample shipments start in January 2018.

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About Toshiba Electronics Europe

[Toshiba Electronics Europe GmbH](#) (TEE) is the European electronic components business of [Toshiba Electronic Devices and Storage Corporation](#). TEE offers European consumers and businesses a wide variety of innovative hard disk drive (HDD) products plus semiconductor solutions for automotive, industrial, IoT, motion control, telecoms, networking, consumer and white goods applications. The company's broad portfolio encompasses integrated wireless ICs, power semiconductors, microcontrollers, optical semiconductors, ASICs, ASSPs and discrete devices ranging from diodes to logic ICs.

Formed in 1973 in Neuss, Germany, TEE has headquarters in Düsseldorf, Germany, with branch offices in Germany, France, Italy, Spain, Sweden and the United Kingdom providing design, manufacturing, marketing and sales. Company president is Mr. Akira Morinaga.

For more company information visit TEE's web site at www.toshiba.semicon-storage.com.

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