



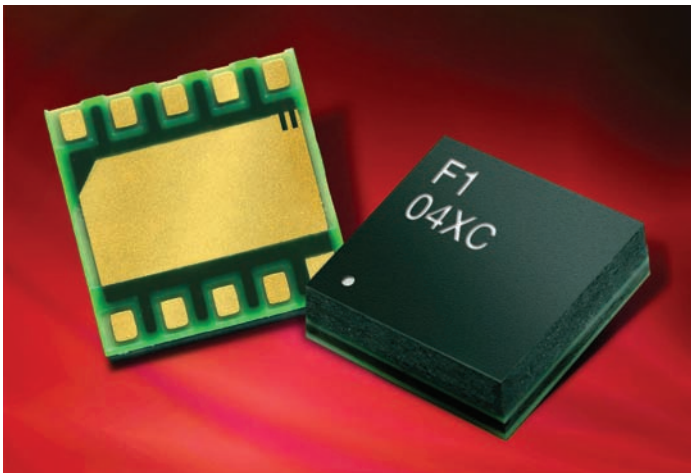
www.mitsubishichips.eu

WCDMA Power Amplifiers for PC Data Communication in 3G and 4G Cellular Networks

Mitsubishi Electric introduces five new gallium arsenide (GaAs) power amplifiers which are mainly intended for use in PC data communication terminals for UMTS and LTE cellular networks at frequencies between 800 and 1980MHz.

sumption. The maximum output power of the amplifiers is 670mW (28.25dBm) with a power gain of 27 to 27.5dB, which can be set to a value of 13 to 13.5dB by using the built-in attenuator.

Each product is designed for an individual band. The BA012F1 for example is designed for the band 1 (1920 to 1980MHz) and BA012F2 is designed for band 2 (1850 to 1910MHz) while BA012F3 is designed for band 3 (1710 to 1785MHz), BA012F5 for band 5 (824 to 849MHz) and BA012F8 for band 8 (880 to 915MHz). In these frequency bands the devices work with an adjacent channel



Small data modems like USB and Mini PCI card require high output power due to the growing data traffic. Therefore, high efficiency at full output power is the key to cope with the limited heat dissipation in modules with small form factor. As the new GaAs power amplifiers are enabled by Mitsubishi Electric's GaAs BiFET technology (bipolar FET) they operate at an industry-leading power-added efficiency (PAE) of 45 percent which means that the new devices reduce the heat emission while simultaneously decreasing the power con-

leakage power ratio of -41dBc (ACLR5MHz) or, respectively, -55dBc (ACLR10MHz).

An integrated coupler enables the designer to monitor the output power. All five devices are integrated in packages measuring 3mm x 3mm x 1mm each, fully comply with the RoHS directive and are completely halogen-free according to IEC61249-2-21.

More information about Mitsubishi Electric can be found at global.mitsubishielectric.com and www.MitsubishiElectric.de

Ref. Nº 1104520



New 5.7" Color TFT-LCD Module with built-in LED Driver for Industrial Use

Mitsubishi Electric is introducing its new 5.7" QVGA color TFT-LCD module for industrial use. The product AA057QD01 is equipped with a built-in LED driver in a slim and lightweight LCD module design and Light Emitting Diode (LED) backlight, providing a longer lifetime and enhanced efficiency.

The new 5.7" TFT-LCD module is built in a new slim design with a lightweight construction. The improved backlight structure reduces the thickness of the module to 8.8mm and its weight to 165g. In addition, the new module contains a built-in LED driver to achieve a more compact system design and a better cost effectiveness in customer's applications while the outline dimensions, mounting position and pin assignments remain compatible to previous modules.

The TFT-LCD modules with market leading long-life LED backlight performance can be operated without an inverter, unlike other models which used Cold Cathode Fluorescent Lamp

(CCFL) backlights. At 25 degrees Celsius, LED backlights have an operating life time of at least 100,000 hours. The TFT-LCD modules offer a brightness of 450cd/m2, making them suitable for operation in very bright illuminated environments. The total power consumption including the backlight is reduced to 1.83W.

The AA057QD01 achieves a top level wide operating temperature range from -30 degrees to 80 degrees Celsius. Therefore, this model can be implemented in applications in harsh outdoor environments.

Mitsubishi Electric was one of the first companies to incorporate LED backlights in its TFT-LCD modules. With the addition of the new LED backlight model, Mitsubishi Electric's TFT-LCD module lineup now includes more than 80 different modules covering 18 combinations of screen size and resolution types. Out of these 18 combinations are available with LED backlights. Mitsubishi Electric aims to further expand its lineup of industrial-use TFT-LCD modules in future.

The new TFT-LCD module is RoHS conform.

Ref. Nº 1104521

www.mitsubishichips.com
www.mitsubishichips.eu