

Tactical Telemetry Modules are Designed for Embedded Applications

A new family of radio modules are designed for rugged tactical applications requiring operation at temperature extremes and high-G shock

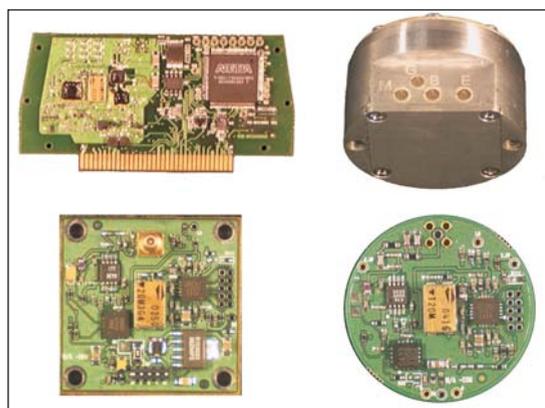
A new line of miniature Tactical Telemetry Modules (TTM) has been announced by M/A-COM, a business unit of Tyco Electronics. The modules are intended for medium

power, embedded telemetry applications.

The most integrated module is the MATMTMU004 single card solution which utilizes direct frequency modulation, resulting in a miniaturized system that is compliant with telemetry range requirements to provide an output power level of up to 1 watt. The solution enables system integration of a multi-channel PCM encoder, lower S-band transmitter, and power regulation onto a single board. The module measures 1.6" x 3.1" and utilizes both COTS and M/A-COM proprietary technologies. Data rates of 300 kbps to 4 Mbps are supported by TTM. The module incorporates a frequency programmable, phase-locked FM S-band transmitter, that utilizes a new dual port VCO and high efficiency power amplifier MMICs. Switching power regulation circuits were implemented within the module to provide maximum operating efficiency.

The MATMTMU001 is a miniature, phase-locked PCM/FM system with an output power of 200 mW. It contains M/A-COM's MA06935 transmitter, MATM07A01 PCM encoder, and ISS-1.125 sensor module.

The MATMTMU002 is also a miniature, phase-locked PCM/FM system with an output power of 200 mW. It contains M/A-COM's MA06935 transmitter, MATM07A02 PCM encoder, and MAPRTM0003 power conditioning module.



The MATMTMU003 is a miniature, phase-locked FM packaged transmitter with an output power of 200 mW. It contains an S-band patch antenna, transmitter and power regulation board with reverse bias protection and an enable function. This device is a 500 mW version of the MATMTMU0003 using the higher output power MA06936 FM transmitter.

The MATMTMU008 is a miniature, phase-locked PCM/FM system with an output power of 200 mW. It contains M/A-COM's MA06935 transmitter, MATM07A02 PCM encoder, and MAPRTM0002 power conditioning module.

All of the tactical telemetry module systems are ideally suited for rugged applications and can withstand setback accelerations of 30,000 G, vibration levels of 30 G in any direction up to 20 kHz, and temperature extremes of -40°C to +85°C.

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