



**FOR IMMEDIATE RELEASE**

**Nova Engineering Contact:**  
**Michael Rauf**  
**+1 (513) 642-3174**  
**[mrauf@nova-eng.com](mailto:mrauf@nova-eng.com)**

Nova Engineering, Inc.  
5 Circle Freeway Drive, Cincinnati, OH 45246  
(513) 642-3000 or (800) 341-NOVA  
Fax: (513) 642-3300  
[info@nova-eng.com](mailto:info@nova-eng.com)  
<http://www.nova-eng.com>

## **DEMODULATOR EXTENDS RANGE AND IMPROVES ACCURACY OF AIRBORNE TELEMETRY SYSTEMS**

*Innovative demodulator supports legacy and new installations while solving emerging data-rate versus bandwidth issues.*

Cincinnati, OH, September 15, 2003 – Nova Engineering, Inc., a provider of technologically advanced communication solutions for commercial and military markets, has developed the Hypermod™ MMD44 demodulator/bit synchronizer for use in airborne telemetry systems. In addition to decoding pulse code modulation/frequency modulation (PCM/FM) signals, this system also handles advanced multi-h continuous phase modulation (CPM) and shaped offset quadrature phase shift keying (SOQPSK) signal demodulation.

For legacy PCM/FM waveforms, the MMD44 offers twice the detection efficiency, or a 3 dB improvement, as compared to conventional demodulators. And, when taking advantage of the latest Advanced Range Telemetry (ARTM) Tier 1 specifications, the Hypermod MMD44 uses an SOQPSK waveform to provide twice the data capacity or ½ the channel bandwidth of Tier 0 (PCM/FM) waveforms without any loss of detection efficiency. In applications ready to use multi-h CPM (Tier 2) waveforms, the system uses 66% less bandwidth than a standard PCM/FM waveform system.

“The MMD44 is designed to improve the performance, efficiency, and reliability of current telemetry installations and support the use of advanced waveforms,” says Mark Dapper,



Nova Engineering's Chief Technical Officer, "In fact, the Hypermod is the first telemetry demodulator to simultaneously support legacy waveforms as well as emerging Tier 1 and Tier 2 ones—and it does so with some incredible performance advantages."

Data rates are specified at: 0.3 to 22 Mb/s for PCM/FM; 1 to 44 Mb/s for SOQPSK; and 1 to 22 Mb/s for CPM. Featuring a built-in bit synchronizer and eye diagram / constellation display, the MMD44 offers real-time signal quality display and performance insight, saving on rack space and reducing equipment expenditure. It is equipped with separate in-phase (I) and quadrature (Q) test outputs for signal monitoring and can be controlled through its front-panel display or remotely by using a personal computer.

Designed as a 19-in rack mount unit, the Hypermod MMD44 measures 19 in x 16 in and is 3.5 in high. It weighs 16 lbs and operates across a 0 to +50°C temperature range and a -20 to +85°C storage range. P&A: \$34,900; 8-10 wks. The Hypermod family also includes the MMT28 transmitter. For more information, please contact Nova Engineering at 1-800-341-6682, on the web at [www.nova-eng.com](http://www.nova-eng.com), or email at [info@nova-eng.com](mailto:info@nova-eng.com).

#### **ABOUT NOVA ENGINEERING**

Founded in 1989, Nova Engineering uniquely combines RF, digital and real-time embedded software expertise to develop and manufacture wireless data communications equipment. Combining advanced wireless networking and waveform development, with the company's products such as software defined radio cores and wireless data communication equipment, Nova Engineering has pioneered a variety of leading-edge developments. Customers include all branches of the military, as well as non-DOD agencies, major military electronics manufacturers and a wide variety of Fortune 500 companies. Nova Engineering is headquartered in Cincinnati, OH. The web site is [www.nova-eng.com](http://www.nova-eng.com).

For further information about Hypermod, contact Michael Rauf at 513-642-3174 or [mrauf@nova-eng.com](mailto:mrauf@nova-eng.com). Information is also available at <http://www.nova-eng.com>.

-END-