## PROTOKRAFT Introduces Magnum - 801 Series Size 8 Cavity Insert Optoelectronic Transmitter and Receivers

Protokraft's Magnum - 801 Series Size 8 Cavity Insert Optoelectronic Transmitter and Receivers Improve Communications Link Performance and Reliability While Reducing Space and Weight Requirements

Kingsport, TN, January 9, 2012 -- Protokraft today announced the availability of the *Magnum - 801* Series of Size 8 Quadrax Cavity Insert optical transmitter and receiver solutions that simplify avionics equipment designs and improve network performance and reliability in harsh environment applications. Protokraft Magnum - 801 Series Size 8 Cavity Insert Optoelectronic Transmitter and Receivers offer a complete optical component solution for avionics optical networks and advanced cockpit displays.



Protokraft has introduced the *Magnum - 801* Series of Size 8 Quadrax Cavity Insert optical transmitters and receivers with ARINC 801 compliant optical interfaces, designed for military, aerospace, industrial or utility applications where significant levels of shock, vibration and extreme temperature ranges are experienced. These components integrate the functions of optical transmitters or receivers into the form factor of standard Size 8 Quadrax cavity inserts. The Protokraft *Magnum - 801* size 8 Optoelectronic Cavity Insert can be installed into standard avionics rectangular connectors such as the Arinc 600/ 404 / EN4165 series and they interface with standard ARINC 801 optical contacts mounted in size 8 cavities through Quadrax cavity adaptors. This solution is ideal for use in avionic network and display systems where small size, reduced weight and resistance to harsh environments are required.



Protokraft's new *Magnum - 801* Series size 8 Quadrax Cavity Insert optical transmitters and receivers are available in a wide range of bit rates and protocols, including Fast Ethernet, 1x/2x/4x Fibre Channel, Gigabit Ethernet, ARINC 818 (ASVB), ARINC 664 (AFDX) and Serial FPDP(sFPDP). All versions are fully compliant with the applicable ARINC, IEEE, ANSI or VITA Specification requirements.

The Magnum - 801 Series optical fiber transmitters and receivers consist of fiber optic transmitter or receiver functions integrated into size 8 Quadrax Cavity Insert optical inserts. The optical transmitters are 850nm or 1310nm devices along with temperature compensated laser device drivers. The transmitter input lines are driven with differential CML, LVDS or LVPECL signals applied to the Transmit (TX+ and TX-) pins. The optical receivers consist of PIN and preamplifier assemblies and limiting post-amplifiers.

Electrical outputs from the receivers consist of differential CML, LVDS or LVPECL data signals on the Receive (RX+ and RX-) pins and single ended CMOS or LVPECL signal detect functions with output squelch on the Signal Detect (SD) pins.

The ARINC 600 / 404 / EN4165 insert mounting configuration of these advance optoelectronics components offers numerous performance and reliability advantages to avionics network equipment designers:

- Eliminates intra-enclosure fiber optic cable assemblies
- Reclaims 42% of the optical link budget without incurring other penalties
- Eliminates optical fiber backplanes signals are routed through the electrical backplane
- · Reclaims electronic line-card real estate from optical transmitters and receivers and disconnects

The electrical interface to the *Magnum - 801* Series Size 8 Quadrax Cavity optical transmitters and receivers is a six position solder pin field facilitating easy interconnection to printed circuit cards, backplanes or flexible printed circuits.

Designed to operate in harsh environments, these new transmitters and receivers feature excellent thermal characteristics, high tolerance to vibration and shock and corrosion resistant ARCAP housings for exceptional EMI/RFI performance. Standard case operating temperature range is -55°C to +85°C, with a standard storage temperature range of -55°C to +100°C. The *Magnum - 801* Series optical transmitters and receivers operate at link distances up to 2.0 Kilometers. All operate from +3.3VDC power supplies.

Protokraft's *Magnum - 801* Series Size 8 Cavity Insert optical transmitters and receivers are competitively priced compared to the typical discrete optical devices and systems which have been designed for avionics applications and/or harsh environments.

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## About Protokraft, LLC

Protokraft designs and manufactures high-speed electronic components and subsystems for military and harsh environment networking equipment. The company provides components subsystems for short-reach (1-meter to 20-kilometer) harsh environment networking connections, including optical network switches, optical enterprise and storage area networks (SAN's), and tactical optical access networks. Protokraft is located in Kingsport, TN. For more information, see <a href="https://www.Protokraft.com">www.Protokraft.com</a> or email <a href="mailto:info1@Protokraft.com">info1@Protokraft.com</a>.

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