

# Protokraft Introduces SMPTE 292M Optoelectronic Transmitters and Receivers

## Protokraft Introduces High Definition - Serial Digital Interface (HD-SDI) SMPTE 292M Optoelectronic Transmitters and Receivers with ELIO® 09-01 Interface

Kingsport, TN, March 7, 2011 -- Protokraft today announced the availability of its Sabre Series of High Definition - Serial Digital Interface (HD-SDI) SMPTE 292M optoelectronic transmitters and receivers that improve video transmission performance and reliability in harsh environment applications. Protokraft teamed with Souriau; one of the world's leading suppliers of military / aerospace interconnects; to offer a high performance D38999 / ELIO® based optical component solution for harsh environment video transmission links.



Electrical Interfaces

- CML
- LVPECL
- LVDS

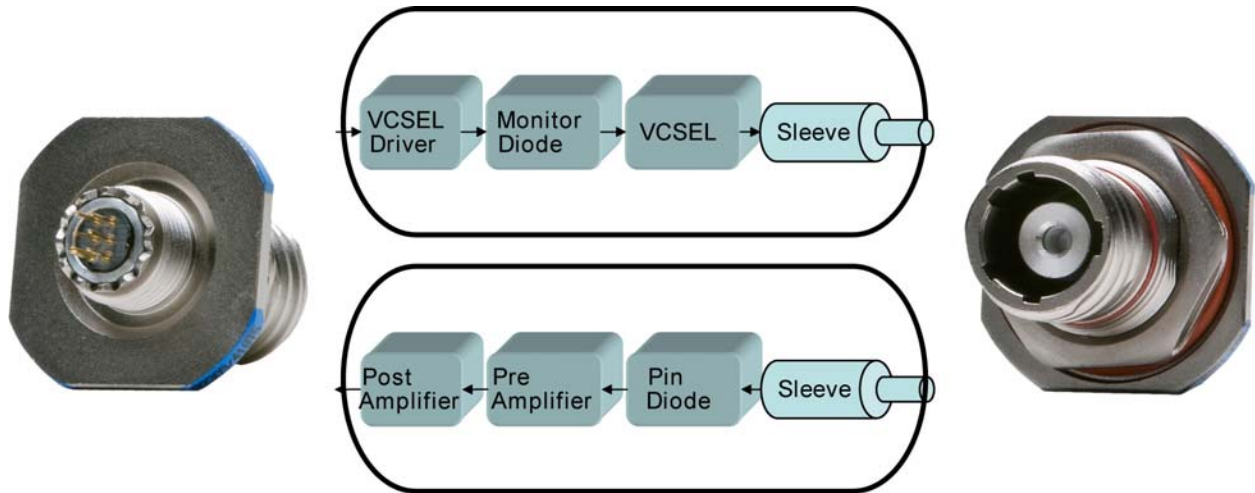


Fiber Optic Interfaces

- 1x/2x/4x Fibre Channel
- SMPTE 259/292M
- Gigabit Ethernet
- Fast Ethernet
- Serial FPDP

Protokraft introduced the Sabre Series of HD-SDI / SMPTE 292M optoelectronic transmitters and receivers with Souriau's ELIO® optical interfaces, designed for military, aerospace, outside broadcast, industrial or utility applications where significant levels of shock, vibration and extreme temperature ranges are experienced. For transmission distances greater than 100 meters, copper cables can be problematic and optical fiber is recommended. These components support transmission of high definition video formats such as 720p and 1080i. These components integrate the functions of optoelectronic transmitters or receivers into the shell of a standard D38999 / ELIO® size 09-01 optical connector. These components are intended for use in harsh environments where small size, weight reduction and resistance to harsh environments are valued. Protokraft Sabre series HD-SDI / SMPTE 292M optoelectronic solutions consist of fiber optic transmitter or receiver functions integrated into an environmentally sealed D38999 shell with a Souriau ELIO® optical interface per ARINC 801, 803 & 804. The Sabre series optoelectronic transmitters and receivers have an ELIO® 2.5mm ceramic optical fiber ferrule connector interface per EN 4531 and ABS 1213 & 1379 and are intermateable with Souriau ELIO® size 09-01 connectors. The optical transmitters are high performance 1310nm Fabry-Perot lasers. The optical receivers consist of InGaAs PIN and preamplifier assemblies and limiting post-amplifiers. The optical interface to the Sabre series HD-SDI / SMPTE 292M optical transmitters and receivers is a Souriau ELIO® connector enabling interconnection to ELIO® based optical fiber cable assemblies. The

electrical interface to the Sabre Series HD-SDI / SMPTE 292M optoelectronic transmitters and receivers is a six position solder pin field facilitating easy interconnection to printed circuit cards, backplanes or flexible printed circuits. The transmitter input lines are driven with differential SMPTE 292M signals applied to the Transmit (TX+ and TX-) pins. Electrical outputs from the receivers consist of differential SMPTE 292M signals on the Receive (RX+ and RX-) pins and single ended CMOS signal detect functions with output squelch on the Signal Detect (SD) pins.



## FEATURES

- Suitable for High Definition Serial Digital Interface (HD-SDI) SMPTE 292M optical communications applications at up to 1.485Gbps
- Optical fiber link distances up to 550 Meters
- Maximum optical channel bit error rate less than  $1 \times 10^{-12}$
- Operating temperature range from  $-55^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Shock, vibration and ESD resistant per Mil-Std-810 and DO-160
- Video Pathological Data Pattern Test Code Compliant
- Aluminum alloy D38999 shells are strong, durable, corrosion resistant and light weight
- ELIO® compliant optical fiber connector interface

Designed to operate in harsh environments, these high speed optoelectronic solutions feature excellent thermal characteristics, high tolerance to vibration and shock and corrosion resistant aluminum housings for exceptional EMI/RFI performance. Standard case operating temperature range is  $-55^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ , with a standard storage temperature range of  $-65^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$ . All operate from +3.3VDC power supplies.

Protokraft's Sabre Series ELIO® high speed optoelectronic solutions are competitively priced compared to the typical pricing for optical transmitters and receivers designed for similar harsh environments. Small quantities are available now, with production quantities of all versions available during Q'2-2011.

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