

DUAL SDI TRANSPORTER MSP-220-D Pro Video Link



Key Features

- Dual port bi-directional 270 Mbps DVB-ASI/SDI/SDTI + 10 Mbps Ethernet transport
- OC-12c/STM-4c SONET/SDH optical signal format
- IR, LR1, LR2, CWDM SFP plug-in optics with level monitoring
- Automatic video cable equalization
- Input/Output digital monitor test jacks
- Local equipment and remote facility loop-backs
- SONET/SDH performance monitoring via plug-in SFP option
- Local and remote Web Browser management via the 10/100BASE-T mgmt. port
- Local and Remote event logs of alarm history for WEB and SNMP
- Remote time server support for event logs and PM history via TIME/UDP protocol

IPITEK's MSP-220D is a new addition to the existing MSP-220 video transport family. This multiplexer transports dual bi-directional 270 Mbps digital video circuits and a 10 Mbps Ethernet circuit using dependable TDM techniques over dark fiber or a SONET/SDH network. In addition, extensive WEB configuration, status, link performance monitoring, time synchronized logging, and SNMP makes this a reliable, full-featured and easy to use standards-based transport product.

The native OC-12c/STM-4c SONET/SDH link interface assures maximum performance on dark fiber applications while also guaranteeing compatibility with public SONET/SDH transport to extend the distance for these services to anywhere in the world.

Management via Ethernet

After IP address is setup via an async port from an administrator, the unit can be fully configured and managed via any WEB browser. Security is maintained by the administrator's control of login accounts and their privileges. Login to a local Ethernet connected device can also support managing the remote end (in bi-directional link mode). Event logs plus alarm support via SNMP is also included in this model.

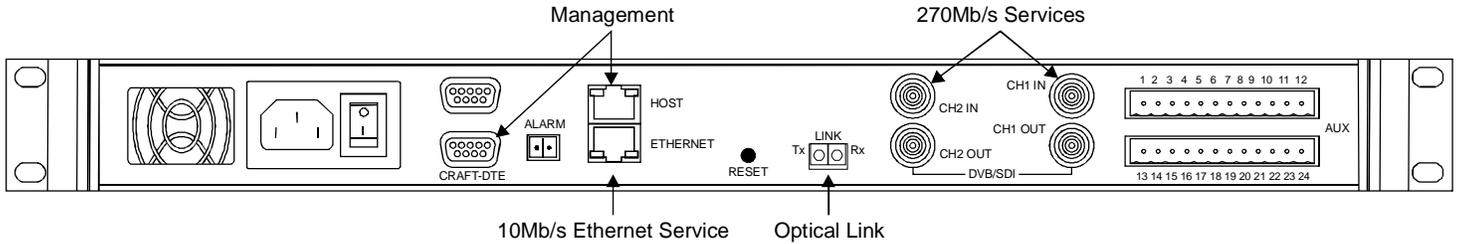
Separate Plug-in Optics

SFP optical plug-ins provide field reconfiguration of the Link interface from short range SONET-IR spec. up to 30dB loss budget 8 channels CWDM. 1310 LR1 and 1550nm LR2 spec. plug-ins are the intermediate choices. This feature is offered to simplify and lower the total cost of ownership by eliminating any need to buy and spare custom configurations. SONET/SDH enhanced IR1, LR1, LR1 SFPs can also be installed to provide extensive Span and Path layer 15 minute and daily total error statistics.

Stateful Logic

Port enabling and disabling under web control not only affects the video transport, it affects the front panel LED status colors as well as controlling alarm processing for each interface. Thus only in-service circuits can be in alarm for operational purposes.

REAR PANEL VIEW



SPECIFICATIONS

Digital Video

Connector:	BNC, 75 ohm
Baud Rate:	270 MHz \pm 100ppm
Max. Cable Length:	300 meters, Belden 8281, Auto Eq
Tx return loss:	15 dB (per SDI and DVB-ASI)
Tx Amplitude:	800 mV \pm 10% (per SDI and DVB-ASI)
Tx DC Offset:	0.0V \pm 0.5V (per SDI)
Tx rise and fall time:	0.4ns 1.5ns (per SDI exceeds DVB-ASI)
Tx rise and fall differential:	0.5ns (per SDI exceeds DVB-ASI)
Tx overshoot:	<10% (per SDI)
Jitter (SMPTE RP184):	<0.2UI p-p Tx and Rx
Jitter (CENELEC EN50083-9):	DVB-ASI): <10% DJ, <8% RJ
Layer 2 Protocols:	Transparent, DC coupled and scrambled

Ethernet

Line Rate:	10 Mbps Full Duplex
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Craft Async

CRAFT-DTE:	57.6 Kb/s, 8/N/2
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Optical

Link budget	
IR1 (1310nm):	13 dB (\geq -15 dBm out)
Rx Sensitivity:	-28 to -8 dBm
LR1 (1310nm):	25 dB (\geq -3 dBm out)
Rx Sensitivity:	-28 to -8 dBm
LR2 (1550nm):	25 dB (\geq -3 dBm out)
Rx Sensitivity:	-28 to -10 dBm
HXX (CWDM Ch 47/49/51/53/55/57/59/61):	30 dB (\geq 0 dBm out)
Rx Sensitivity:	-30 to -9 dBm
Connector:	LC/UPC

Environmental

Operating Temperature:	0° to 50° C
Storage Temperature:	-55° to +75°C
Operating Humidity:	to 90%, non-condensing
Dimensions:	1.75"H x 19" or 23" W x 14"D
Power:	-48 VDC or 110/220 VAC, 42 watts
Heat:	143.3 BTU/Hr
Weight:	7 lbs

Dust Contamination

In general, dust is measured in two size ranges; particles with diameters less than or equal 2.5 μ m are called fine particles, and those with diameters greater than 2.5 μ m are called coarse particles. The sum of the particulate concentrations (mg/m³) in each of these two size ranges is referred to as Total Suspended Particulate (TSP).

The MSP-220D is designed to function properly in an environment with no more than the following range:

Maximum Levels	
Airborne Particles (TSP Dichot 15)*:	20 mg/m ³ **
Coarse Particles:	<10 mg/m ³ **
Fine Particles:	15 mg/m ³ **

NOTE

*TSP Dichot 15 = total suspended particulates determined using a dichotomous sampler with a 15-mm inlet.

** mg/m³ =micrograms per cubic meter

ORDERING INFORMATION

MSP-220-D - XX

*MSP-220-D
Pro Video
Link*

Version

AC = AC Powered (Model Number: 03-6800-0001, CLEI Code: VLM3TS0GRA)
DC = DC Powered (Model Number: 03-6800-0002, CLEI Code: VLM3TT0GRA)

MSP-SFP - XXX

*MSP-220 Series
Optics Modules*

Type

IR1 = 1310nm(13 dB link)
S-IR1 = 1310nm(13 dB link) SONET/SDH performance monitoring
LR1 = 1310nm (25 dB link)
S-LR1 = 1310nm(25 dB link) SONET/SDH performance monitoring
LR2 = 1550nm (25 dB link)
S-LR2 = 1310nm(25 dB link) SONET/SDH performance monitoring
HXX = CWDM (30 dB link) XX=ch# (47, 49, 51, 53, 55, 57, 59, 61)

MSP-SFPs include two LC to SC/UPC 2 meter adapter fiber jumpers



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IPITEK reserves the right to modify product specifications without prior notification.