IPITEK
INTEGRATED PHOTONICS TECHNOLOGY
ISO 9001 Registered

DIGITAL TRANSMISSION SYSTEM
MSP-110

FEATURES

- **Baseband video and HDTV (19.4 Mb/s) on one fiber**
- **Up to 149 Mb/s Available in ASI-Only Mode**
- **Populate for uni-directional or bi-directional service**
- **OC-3c/STM-1c Interface to SONET/SDH Transport Rings**
- **Choice of SFP lasers for Various Link Budgets and CWDM**
- **full remote inband management in two way mode via Web Browser and SNMP**
- **RS-232 async data service link included**
- **NEBS Level 3 Approved**

IPITEK's MSP-110 is a local or regional transport solution that PCM encodes and decodes analog baseband video and efficiently transports DVB-ASI plus RS-232 async over a simplex or duplex fiber link. Simple ordering allows choices of analog only, DVB-ASI only or both analog and DVB-ASI simultaneously. SFP-based optics, sold separately, support IR1, LR1, LR2 SONET/SDH OC-3/STM-1 compliance and CWDM on channels 47 thru 61. SONET/SDH OC-3c/STM-1 framing of the link signal supports transport thru public and private SONET/SDH backbone networks.

Targeted applications:

- Point-to-point dark fiber transport
- Point-to-Point transport over SONET/SDH as OC-3c/STM-1c
- RS-232 link for camera or remote switch control
- Uni-directional Baseband video or DVB-ASI or both
- Bi-directional Baseband video or DVB-ASI or both
- Baseband video plus 19.4Mb/s ATSC HDTV bi-directional HDTV and uni-directional Baseband.
- Centrally managed systems
- AC or -48 VDC powered with 1RU mounting
- DVB-ASI only transport up to 149mb/s

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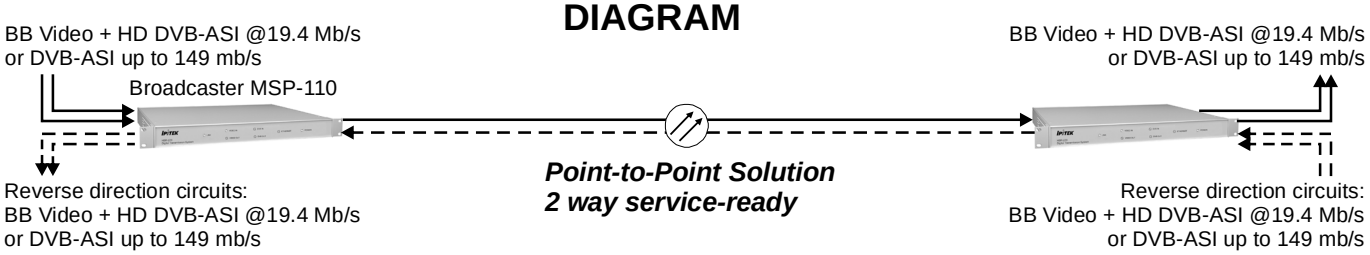
Included in these models is easy setup via a WEB Browser and SNMP agent. These IP functions provide menu-driven access to extensive status, controls and loopback test functions. SNMP trap destinations and remote end IP relay further enable remote management using one IP address for the link.

New Functions:

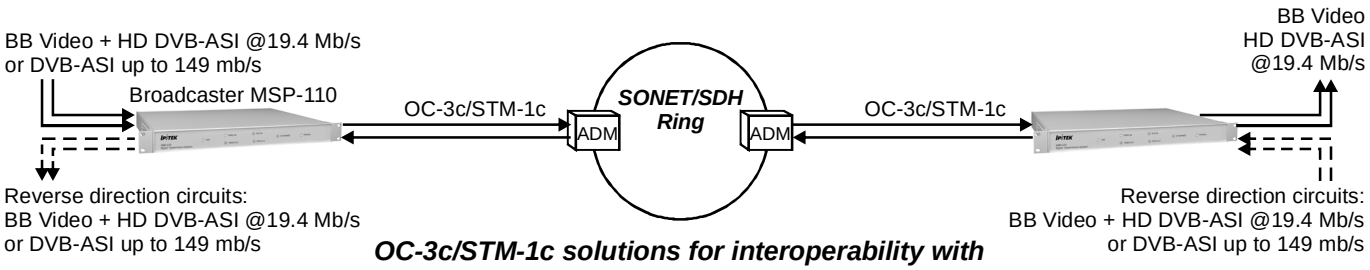
Enable/disable service port controls bandwidth assignment and LED and alarm status. Auto and manual timing mode settings. Enable/disable muting of audio on video loss. Red/Blue analog video output fault screen generation for remote source or link

IPITEK FIBER OPTIC DIGITAL TRANSPORT

DIAGRAM



Point-to-Point Solution
2 way service-ready



OC-3c/STM-1c solutions for interoperability with SONET/SDH rings, 2-way service-ready

SPECIFICATIONS

DVB-ASI Interface

Connector:	BNC, 75 ohm
Baud Rate:	270 Mb/s ±100ppm
Cable Length:	200 meters
ASI Input:	Burst Packet Mode or Spaced Byte Mode, auto-sensing
MPEG-2 Input:	188 Byte or 188+16 Byte, auto-sensing
ASI Output:	Burst Packet Mode or Spaced Byte Mode, configurable
MPEG-2 Output:	188 Byte or 188+16 Byte
MPEG-2 Payload:	19.4 Mb/s
Standard:	CENELEC EN 50083-9

Baseband Video

Signal-to-Noise Ratio:	≥ 67 dB, quiet line
Frequency Response:	
4.2 MHz:	±0.1 dB
6.0 MHz:	+0.1/-0.75 dB
Chroma-Luma Gain:	±2 IRE
Chroma-Luma Delay:	8 ns
Chroma Non-Linear Gain:	±1 IRE
Chroma Non-Linear Phase:	0.5°
Chrom-Luma Intermodulation:	0.2 IRE
Differential Gain:	1%
Differential Phase:	0.5°

Data

RS-232 (2):	19.2 Kb/s

Baseband Audio

Signal-to-Noise Ratio:	≥ 76 dB
Total Harmonic Distortion:	≤ 0.05%
Frequency Response:	±0.5 dB, 20 Hz to 20 KHz
Transmission Time Differential:	0.25 ms
Audio Channels:	4 per baseband video

Optical - Order seperately

Link budget	
IR1 (1310nm):	13 dB(≥ -15 dBm out)
Rx Sensitivity:	-28 to -8 dBm
LR1 (1310nm):	29 dB(≥ -5 dBm out)
Rx Sensitivity:	-34 to -8 dBm
LR2 (1550nm):	29 dB(≥ -5 dBm out)
Rx Sensitivity:	-34 to -10 dBm
CXX (CWDM Ch 47/49/51/53/55/57/59/61):	24 dB(≥ 0 dBm out)
Rx Sensitivity:	-24 to -9 dBm
HXX (CWDM Ch 47/49/51/53/55/57/59/61):	30 dB(≥ 0 dBm out)
Rx Sensitivity:	-30 to -9 dBm
Connector:	LC/UPC

Environmental

Operating Temperature:	0º to 50º C
Storage Temperature:	-55º to +75ºC
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
Power Dissipation (DC):	22 W typical (25 W max)
(AC):	30 W typical (33 W max)

ORDERING INFORMATION

MSP-110 - XX - XX MSP-SFP - XXX - O3

MSP-110 Transport System

Services
BB = Baseband
HD = HDTV(149 Mb/s ASI)
BH = Baseband & HDTV (19.4 Mb/s ASI)

Input Power
AC = 110/220 VAC
DC = -48 VDC

Optics - Order separately
IR1* = 1310nm (13 dB link)
LR1 = 1310nm (29 dB link)
LR2 = 1550nm (29 dB link)
CXX = CWDM (24 dB link) XX=ch# (47, 49, 51, 53, 55, 57, 59, 61)
HXX = CWDM (30 dB link) XX=ch# (47, 49, 51, 53, 55, 57, 59, 61)

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