IPITEK
INTEGRATED PHOTONICS TECHNOLOGY
ISO 9001 Registered

IPITEK FIBER OPTIC DIGITAL TRANSPORT

MSP-220-R Media Services Regenerator

- **Network Regenerator partner to IPITEK's MSP-220-T**

- **Modular SFP Optics: GR-253 1310, 1550, CWDM plug in link optics**

- **Full 3R SONET/SDH regenerator**

- **SONET/SDH OC-12/STM-4 standard format for highest quality and reliability**

- **Web Browser and SNMP Based Management**

- **NEBS Level 3 tested and certified**

- **Common Language codes (CLEI) registered with Telecordia**

IPITEK's new MSP-220-R Optical Link Regenerator is a state-of-the-art solution for regeneration of signals over extended reach fiber distances. It provides an immediate, cost effective solution to transmission distance issues that may arise in the deployment of MSP-220-T Pro Video Platforms. This new unit provides a cost effective method for direct regeneration of MSP-220-T signals. This eliminates any requirement to decode and re-encode signals to move them over longer distances.

MSP-220-R carries all of the signals generated in the MSP-220-T, including 12 bit baseband video with up to 4 audio channels, ASI/SDI/STDI and fast Ethernet. It provides the highest levels of performance to assure there is no degradation in quality over extended distances.
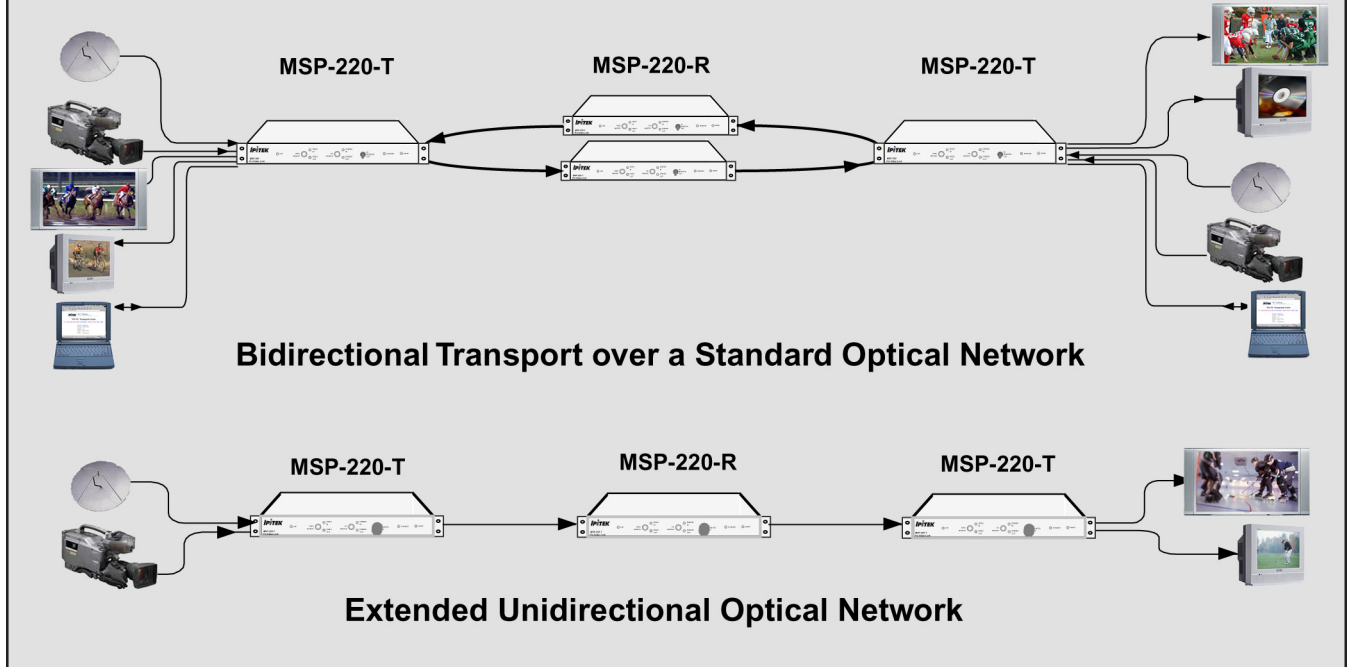
To assure the highest performance with maximum capability and interface, MSP-220-R utilizes OC-12c/STM-4c formatting. This allows the unit to be used for point-to-point operations or to interface to a SONET/SDH ring.

The MSP-220-R provides full 3R capability. It is designed with field replaceable SFP optics that are common with the MSP-220-T. This simplifies operations and eliminates the requirement for sparing multiple types of SFP modules. The MSP-220-R can be utilized as a simple optical line extender in a unidirectional network. It can also be used in more complex networks, providing the highest levels of redundancy in standard fiber or SONET/SDH networks.

The unit has a built in IP web based user interface that provides full-featured local and remote status monitoring capabilities.

MSP-220-R is also a future proof unit. In the event future changes in network designs require a full performance unit, the unit has been designed to allow a factory upgrade to a full operation MSP-220-T. This allows the unit to provide full services at a lower cost than purchasing a new unit.

Typical Network Applications with MSP-220-R

MSP-220-T **MSP-220-R** **MSP-220-T**

Bidirectional Transport over a Standard Optical Network

MSP-220-T **MSP-220-R** **MSP-220-T**

Extended Unidirectional Optical Network

SPECIFICATIONS:

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*):   30 dB ($\geq$ -3 dBm out)
  Rx Sensitivity: -30 to -9 dBm
CWDM Lasers Channel 47/49/51/53/55/57/59/61
Connector type: LC/UPC

Craft Interfaces:
RJ-45 Ethernet 10/100 BASE -T
RS-232 (2) Asynchronous serial 57.6 Kb/s. 8/N/2

Electrical/Environmental:
Operating Temperature Range: 0° to 50° C
Storage Temperature Range: -55° to $+75^{o}$ C
Operating Humidity: to 95%, non-condensing
Powering: -48 VDC or 110/220 VAC,
                42 Watts
Heat: 143.3 BTU/Hr

Dimensions: 1.75"H   x 19" or 23" W   x 14" D
            44.5 mm x 483 or 584mm x 356mm
Weight: 7 lb. (3.2 Kg)

ORDERING INFORMATION

MSP-220-R	-	XX	MSP-SFP	-	XXX	SONET GR-253 Compliant
MSP-220-R **Optical Link** **Regenerator**		**Powering** **AC =** AC powered **DC =** DC powered	**MSP-220-R** **Optics** **Modules**		**Type** **IR1 =** 1310nm (13 dB link) **LR1 =** 1310nm (29 dB link) **LR2 =** 1550nm (29 dB link) **HXX =** CWDM (30 dB link) XX = Ch# (47, 49, 51, 53, 55, 57, 59, 61)	

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