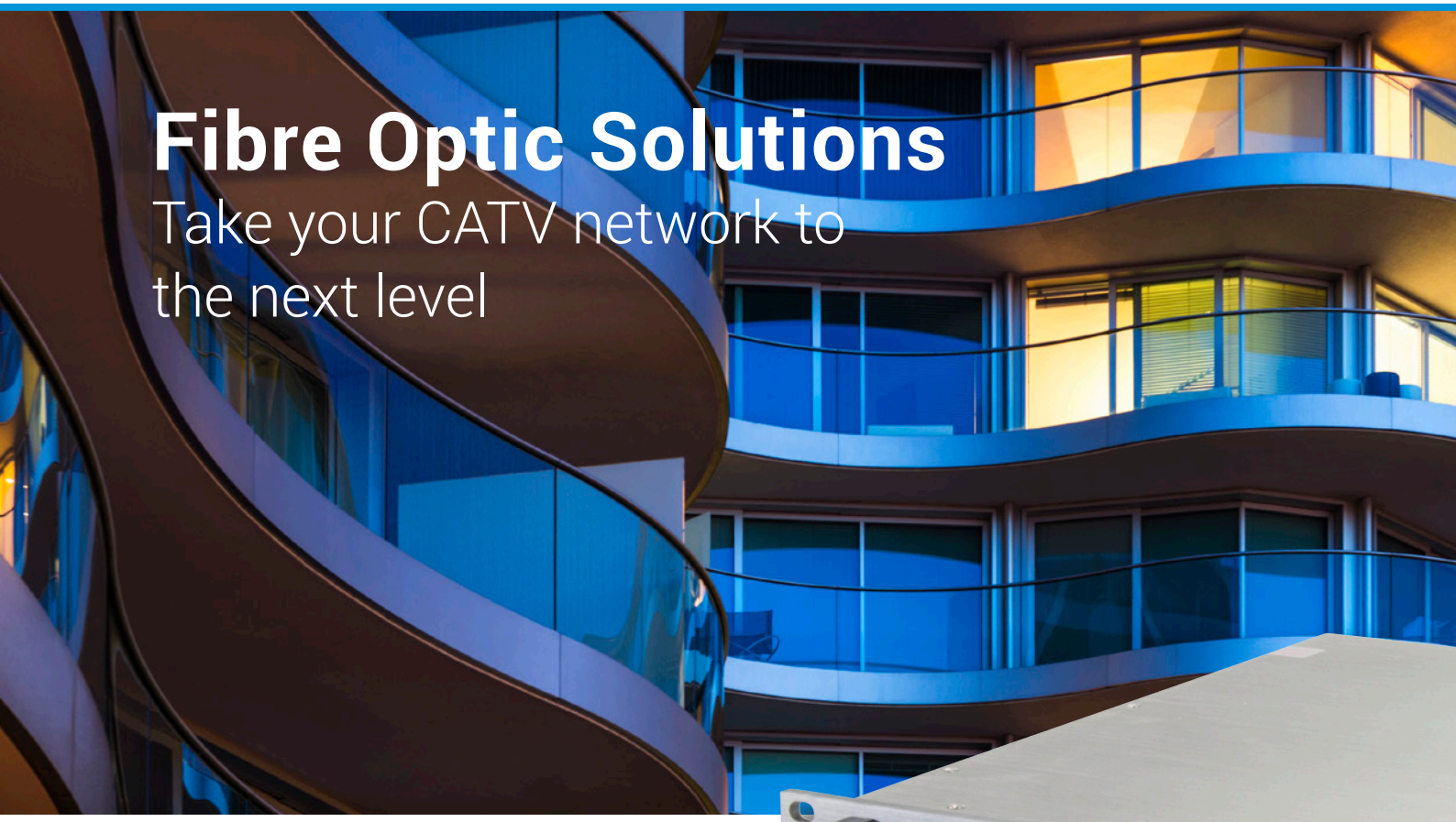
LITESPEED

CATV OPTICAL TRANSMITTER 1310nm

SPACE stream



Fibre Optic Solutions

Take your CATV network to the next level



Our CATV Optics cover all active equipment to transmit TV broadcast via a Fibre Optic Network.

- Improved Viewing Experience
- Less Maintenance
- Future Proof and Scalable Systems
- Less Power Consumption
- Logical Installation and Configuration
- Professional Product Training
- Skilled Support

GET UP TO SPEED WITH OUR NEW OPTICAL TRANSMITTER

OTX-CATV-20

HOSPITALITY HEALTHCARE OFFSHORE MINING MILITARY EDUCATION COMMERCIAL GYMS

WWW.SPACETV.CO.ZA

CATV
Fibre Optic Solutions

Fibre Optic Benefits

- Signals are transmitted transparently by amplitude modulated light in wavelength window around 1310nm.
- The Space Stream CATV Fibre Backbone is capable of transmitting a full 1 Ghz of RF Video from the headend to the Subscriber tv set.
- Eliminates the impact static as a result of lightning strike when compared to traditional coaxial copper CATV RF networks.
- Cost Saving by way of lower maintenance over time
- Improved Signal Quality over Coax Copper networks
- Cost Effective method for distributing HDTV over large distances.
- Less Signal Attenuation over Copper networks.
- No RF interference over the Fibre network.
- Optical CATV system provides greater bandwidth capacity.
- Utilizes Single Mode Fibre Optics Backbone.
- CATV Optical Transmitter and Receivers work very linear with no distortions.

The New Fibre Possibilities

- Cable Television Networks have centralized head ends where signals are received and processed and then distributed via Fibre Optic infrastructure to sub head ends.
- The Optical Transmissions used in a Hybrid Fibre Coax (HFC) networks that can be combined with active coaxial parts of the access network.
- The Centralized CATV Network processes the signal from Terrestrial or Satellite sources and then converts them to an optical output which is sent out to the network.
- The Option of Internet and Return Path Signals may be added to the Fibre Network at the main head end.
- All the Optical Cables are distributed and terminated at the Optical receiver /Optical Node. The Optical Receivers convert the Signal from Light back to RF so they can be redistributed to the home via Coaxial Cabling.







- Optical Transmitter – OTX-CATV-20
- Optical Receiver – ORX-CATV

Typical Installation

- LITESPEED RF OVER FIBRE SOLUTION



RF HEADEND
(ANALOGUE OR DIGITAL)



SPACE STREAM OTX-CATV-20
RF OPTIC TRANSMITTER



OPTIC SPLITTERS
SPLIT OUTPUT FROM OPTIC TX



ORX-CATV OPTIC RX AT EACH POINT
RF FEED FROM RF DIRECTLY TO TV SET

OTX-CATV
OPTICAL TRANSMITTER 1310nm

Fibre Optics

| Optical transmitter 1310 nm for HFC networks







- Directly modulated and cooled high-performance DFB laser
- Automatic processor-controlled adjustment of the laser drive with regard to level and channel loading of various RF input signals produces the best transmission characteristics in terms of low intermodulation (CTB/CSO) and low noise
- Multichannel pre-distortion and GaAs amplifier technology also provide the best signal quality with low noise and low distortion
- 32-bit microprocessor for automatic monitoring and control of the laser ensures constant output level and long service life
- 19" 1 U HE enclosure with 10TBase Ethernet (IEEE802.2) and RS 232 interface for external network monitoring
- Other output levels available on request
- RF connectors: F female
- Fibre optic connectors: SC/APC

TECHNICAL SPECIFICATIONS:		OTX-CATV-20
Optical output power	mW	20.0
Optical output power	dBm	13.0
RF input		
Frequency range	MHz	47 - 862
Level (84 PAL D channels)	dBµV	85 ±3
Test point (F-connector, front)	dB	-20
Flatness in band	dB	±0.75
Return loss	dB	>18
Optical System		
Wavelength	nm	1310
CTB (Non linear distortion) (Popt in = - 1 dBm, 84 PAL D channels)	dB	>65
CSO (Non linear distortion) ((Popt in = - 1 dBm, 84 PAL D channels)	dB	>60
C/N (Popt in = - 1 dBm, B=5MHz)	dB	>51
Test point - RF input(F-connector, front)	dB	-20
Laser type		DFB, temperature controlled
Additional		
Monitoring interfaces		RS232 for software, RJ45 for LAN Ethernet
Monitoring display	dot	160 x 32
Input connectors (for RF)		F-Connector
Fibre connectors (for fibre optic cable)		SC/APC
Housing		19", 1 HE
Power supply	VAC	110 – 253 (50 MHz)
Dimensions (w x h x d)	mm	480 x 44 x 380

ORX-CATV
OPTICAL RECEIVER

Fibre Optics

| Optical receiver FTTH for individual households

The ORX-CATV optical receiver is a highly cost effective optical network termination for an individual residence. The receiver's output is directly connected to outlets via passive coaxial distribution.
Simple setting up and stable operation via AGC and LED display. Receiver is supplied in a plastic hood with a plug-in power supply.



- AGC for constant RF output level
- 3-colour LED for rapid indication of the correct optical input level
- Compact and space saving
- Low power consumption
- Includes 9V power supply
- SC/APC connection at optical input
- RF output level 80 dBµV

TECHNICAL SPECIFICATIONS: ORX-CATV Optical Receiver			
Optical Characteristics			
Input level (Pin)		dBm	- 10...+1
AGC range		dBm	- 6...0
Optical Return Loss		dB	>40
Wavelength		nm	1100...1650
Equivalent input noise		pH/(Hz)	6.5
Optical power indicator LED	orange	dB	Pin < -6
	green		-6 < Pin < 0
	red		Pin > 0
Optical connector			SC/APC
RF parameters			
Frequency range		MHz	47...862
Gain flatness dB + 1.0			
Max. Output level (42 Ch. CENELEC)	CTB<60 dBc	dBµV	80
	CSO<60 dBc	dBµV	80
Level output stability in the AGC mode		dB	+ 1
Return Loss		dB	>18 (40 MHz) -1,5/Octave
RF output connector			F-female
Operating voltage and Additional data			
Operating voltage		VAC/Hz	ext. Power Supply 9 V / 150 mA
Input		W	< 1
Protection class			IP 40
Operating temperature range		°C	-20...+55
Weight		kg	0,1
Dimensions (w x h x d) incl. plastic cover		mm	60 x 50 x 20