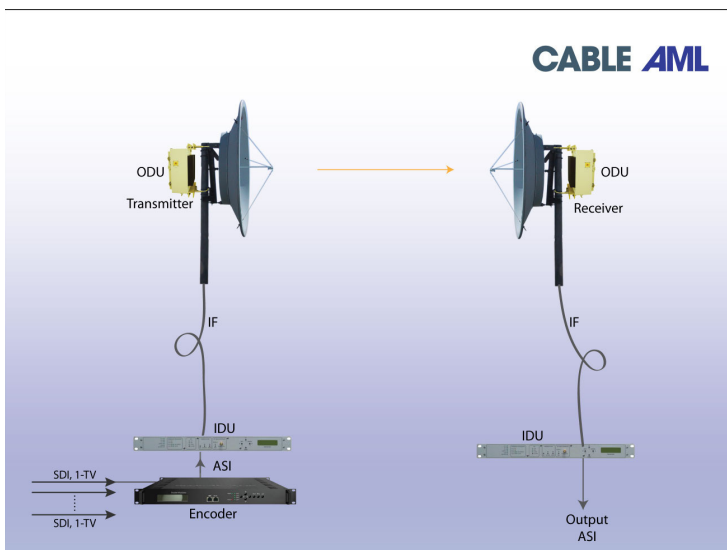


DIGITAL STL (STUDIO TO TRANSMITTER LINK)

- **Point-to-Point Link for transport of Digital HD/SD TV programs**
- **Distances of up to 50 miles (80 Kms)**
- **HD-SDI Input, MPEG4 H.264 Encoder**
- **Frequency bands from 7 to 38 GHz**
- **1+1 Configuration available for Redundancy**



PRODUCT APPLICATION:

The Digital STL is a Point-to-Point microwave link designed for high quality transport of one or more SD or HD-SDI Video and audio signals at line-of-sight distances of up to 50 miles (80 Kilometers).

The link consists of an IDU (Indoor Unit) and an ODU (Outdoor Unit), connected by cable. At the transmitter site the IDU has two modules, Encoder and Modulator. At the receiver side there is a Demodulator and optional converters depending on the desired output format.

The ODU is a microwave head bolted directly to the antenna.

The link's input encoder accepts broadcast type SDI or HD SDI video with embedded audio and it is also provisioned with a set of RCA L&R inputs for audio from an analog source. It generates an MPEG2 or MPEG4 H.264 video stream, with Dolby® AC-3 or MPEG1 layer 2 audio. It is installed in a chassis with slots for 3 additional optional encoders.

The encoder ASI output feeds the IDU modulator module. Transmission is in IP format and modulation rates are programmable from QPSK to 256QAM.

The link output is available in either ASI or IP formats. Operating frequency can be in any of the standard bands: 4/6, 7/8, 10, 11/13, 15, 18, 23 and 31/38 GHz.

The radios have a maximum data throughput of 155Mbps (up to 310Mbps optional), full duplex. Asymmetrical data rates are available for upstream and downstream.

They include a built-in Network Management System (NMS) (Web, SNMP, TELNET), a built-in Bit Error Rate (BER) Tester and a built-in Spectrum Analyzer.

Supported radio configurations are 1+0 and 1+1 for redundancy, Hot standby with hitless switching and with frequency and/or space diversity.

Product Specification¹

CABLE AML

Model STL-XX-XX

Video Inputs	
SD-SDI / HD-SDI Video:	1 x 75-ohm HD-SDI capable input
Component Video:	1 x HD Component (YCrCb) Video Input
Composite Video:	1 x 1V p-p +/- 3 dB, 480i only
Closed Captioning Input:	1 x 1V p-p +/- 3 dB, 480i Composite Video
Audio Inputs	
RCA-type L + R:	1 x 1Vrms nominal, 3.5Vrms maximum
SDI-embedded Audio:	Supports PCM (uncompressed) digital audio from SDI
Video Options	
Input Video Modes Supported:	480i (720×480 @ 30 fps), 576i (720×576 @ 25 fps), 720p @ 60 Hz (1280×720 @ 60 fps), 1080i @ 30 Hz (1920×1080 @ 30 fps), 1080i @ 25 Hz (1920×1080 @ 25 fps) Supports auto-scan for input resolution
Encoder Format:	MPEG2 or MPEG4 / H.264
Video Adjustments:	Brightness, Contrast, Hue, Saturation
MPEG4 Profile Support:	Simple, Advanced Simple, High
Bitrate:	Up to 19 Mbps (depending on input format)
Closed Captioning:	Supports Closed Captioning extraction of either EIA-608 or EIA-708 embedded data
Audio Options	
Encoder Format:	Dolby Digital® or MPEG1, Layer 2
Output Bitrate:	128, 192, 320, 384 kbps
IDU network data interface	
- 1 x Gigabit Ethernet (100/1000Base-T)	
- 1.1 x 10/100BaseTX for data or management	
- ASI (BNC input/output) (up to 4 ASI outputs, optional)	
- 1-2 x E1 IT1 plug-in extension module (optional)	
- 1 x E3/ OS3 plug-in extension module (optional)	
System Parameters	
Modulation:	Programmable QPSK, 16QAM, 32QAM, 64QAM, 128QAM, 256QAM
Channel Bandwidth	7, 14, 28, 40, 56MHz (ETSI); 10, 20, 30, 40, 50(ANSI); 50 and 56MHz optional.
Frequency Bands	4/6GHz, 7/8GHz, 10GHz, 11/13GHz, 15GHz, 18GHz, 23GHz, 31/38GHz
Standard	ETSI/FCC

¹ Specifications subject to change without prior notice.

Product Specification¹

CABLE AML

Model STL-XX-XX

Transmitter Power	
QPSK	27 to 18 dBm (depends on frequency), +32 dBm optional
32QAM	24 to 15 dBm (depends on frequency), +29 dBm optional
128QAM	22 to 13 dBm (depends on frequency), +27 dBm optional
Receiver Sensitivity @10E-6 BER	
28 MHz, 155Mbps	From -70dBm to -66dBm (depends on frequency)
56 MHz, 310 Mbps	From -72dBm to -68dBm (depends on frequency)
Standards Compliance	Radio ETSI EN 302 217, EN 301 216, EN 301 128, EN 300 19B
Power Supply	ETSI EN 300 132-2, EMC / Safety ETSI EN 301 489, IEC EN 60950
Payload Interface Parameters	
Gigabit Ethernet	Line Rate Full Duplex, scalable up to 310 Mbps. Interfaces G703 RJ45/BNC
ASI	Test Utility Loopback, Internal BER tester
Configuration	
Supported Configurations	Dolby Digital® or MPEG1, Layer 2
Radio Protection	128, 192, 320, 384 kbps
Mechanical/Environmental	
Dimensions IDU:	Half 19" standard rack (2U), 210 x 88 x 210 mm
ODU:	260mm x 160mm
Weight IDU:	2 Kg; ODU: 12.0 Kg
Operating Temperature IDU:	-5°C to +45°C; ODU: -33°C to +55°C
Altitude	Up to 4500 meters
Humidity IDU:	95% condensing; ODU: 1000% all-weather
Power Input	90 to 230 VAC
Power Consumption IDU + ODU:	Standard <25W, High <35W
Coaxial Interfaces	IDU N-Type Fem, ODU N-Type Fem
IDU-ODU Cable	RG-8, up to 300m
Network Management	
Support	SNMP, WEB based GUI, TELNET, ASCII console
Local Access	Ethernet 10/100 Base-T/RJ-45, RS232, USB-A, USB-B
In-band Management	Via LAN
IP Addresses	Primary, secondary
IP Option	NAT, Proxy ARP
IP Utilities	Ping, telnet