



## 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)
- Frequency bands from 7 to 38 GHz
- 1+1 Configuration available for Redundancy
- Four ASI inputs / outputs
- Optional HD - SDI input MPEG4, H.264 Encoder

## PRODUCT APPLICATION:

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

The link enables simultaneous transport of DVB-ASI streams along with IP/Ethernet and data services.

The link consists of an IDU (Indoor Unit) and an ODU (Outdoor Unit), connected by cable. The ODU is a microwave head bolted directly to the antenna.

The Salinas STL is a high performance point-to-point microwave link available at all standard licensed frequency bands from 4.5 to 42 GHz.

The link offers throughput of up to 600 Mbps full duplex in a single polarization channel. The radio offers hitless Advanced Adaptive Coding & Modulation (AACM) to provide link reliability in degraded channel conditions with standard modulation levels up to 1024QAM.

It also features Adaptive Power Control to implement automatic transmit power level increase on modulation downshift for improved system gain during fading. Other outstanding features include comprehensive management and monitoring capability and the best system gain available.

The system includes both fiber and copper Gigabit Ethernet interfaces with in-band and out-of-band management and can be powered directly or over Ethernet using a PoE injector.

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

# Product Specification<sup>1</sup>



## Model Salinas STL

IDU ASI Interface (Optional)	
Input	ASI Streams ( 216 / 270 Mbps)
Multiplexing	Each unit can multiplex ASI Streams into single link
Packet Format	188 / 204 Byte Packet Size
Types of Connections	<ul style="list-style-type: none"><li>• 1 input (at Studio) to 4 output (as Distribution Amp) (Transmitter End)</li><li>• 2 input and 2 output at each end.</li><li>• 4 input one end and 4 Output at another end of link</li><li>• Add- Drop feature</li><li>• Cross Connect.</li></ul>
Traffic Interfaces	<ul style="list-style-type: none"><li>• 4 x bidirectional DVB-ASI (4x Tx/Rx BNC) in one Module</li><li>• 2 x SFP (1000Base SX/LX) for Salinas IDU and other External Multiplexing Module (EMM)</li></ul>
Management	<p>Integrated Management access</p> <ul style="list-style-type: none"><li>• Managed by Common Management from connected Salinas IDU over SFP</li><li>• Telnet/SSH for CLI access, WEB GUI, SNMP V1/v2c/v3</li></ul>
Data Interfaces	
Ethernet Traffic / Management Access	4x 10/100/1000ETH (RJ-45)

## General Parameters

Frequency bands	6, 7, 8, 11, 13, 18, 23, 38 GHz bands, Frequency Division Duplex (FDD)
Channel Size*	7, 10, 14, 20, 25, 28, 30, 40, 50, 56, 60, 80 MHz
Modulation Format	Selectable: QPSK, 8PSK, 16QAM, 32QAM, 64QAM, 128QAM, 256QAM
Max Uncompressed Capacity	600 Mbps full duplex – Varies by modulation, bandwidth, and packet mix
Payload Latency	200 µs typical
Payload Types	Ethernet (IPv4 and IPv6 compatible)
Regulatory Compliance*	ETSI EN 300 019, Part 1-3, Class 3.2, Part 1-1 Class 1.2 and Part 1-20 Class 2.3 EN 300 132-2 and EN 300 217-2-2 EN 301 489-1 and EN 301 489-3 IEC 60950-1/EN 60950-1 FCC CFR47 Part 101 FCC/ANSI: FCC Part 15 Class A Unintentional Radiator RoHS
Safety	EN60950-1
Data Transmission	Capacity allocation: Priority Based Packet System (PBPS) gen.3

## Ethernet Parameters

Packet Size	64-9200 bytes
Quality of Services (QoS)	Source Port, IEEE 802.1p, IPv4 TOS/DSCP, IPv6 TC, VLAN VID, SA/DA
Data Security	AES-128/256 Encryption

<sup>1</sup> Specifications subject to change without prior notice.

# Product Specification<sup>1</sup>



## Network Management System

Item	Parameter	Value
Ports	Default NMS ports Additional NMS ports	ETH port LAN 3 USB-B in IP mode
NMS form	Protocols – Network Protocols – Local In-band management Out-of-band management	HTTPS, HTTP, SNMP v.1/v.2c/v.3, TELNET, SSH Serial console over USB-B Via VLAN 115 kbps
IP addresses	Addresses type Additional function	Primary IP/ Secondary IP / RFI / USB Static Routes, NAT, Ping, Telnet
GUI	Type	WEB based
CLI	Type	athOS
SNMP	Version Read access Write access	SNMP v.1, SNMP v.2c, SNMP v.3 Complete MIB Subset of link parameter
Security	Licenses Access levels HTTPS certificates	Permanent / Time limited licenses Guest/User/Admin with password security Client and server certificates

## Power

Power Input	-45 to -72 VD C direct or using PoE
Power consumption	48 to 72 Watts dependent on sub-band
Power Protection	Reverse polarity and transient clamping to 100 volts

## Mechanical and Environmental

### IDU

Dimensions	W450 x H44 x L240 mm
Weight	2,2 kg
Temperature	-5 °C to +45 °C / +23°F to +113°F
Humidity	0 to 95%, non-condensing
Altitude	4,500 meters

### ODU

Dimensions	W277 x 239 x L92 mm
Weight	9.5kg
Temperature	-33 to +55°C (ETS 300 019-2-4 Class 4M5)

