

The iLux | Transport A flexible **Multi-Channel** SRT Gateway



The iLux | Transport Mini



Options: Dual ASI in/out - ATSC 1.0 RF quad tuner

The iLux | Transport 1RU

To transport live video securely and reliably over the public Internet or a private IP network, there is no better solution than the igolgi **iLux | Transport** product family. Getting your media streams from point A to point B securely and reliably can be done in a variety of ways.

The **iLux | Transport** system has demonstrated its reliability for many years, successfully handling thousands of live channels 24/7 for top-tier providers in the cable, satellite, broadcast, IPTV, and OTT sectors.

iLux | Transport supports multichannel SRT. Each channel is independent from the others, and can be SRT input and/or SRT output. In addition, the system is capable of ingesting HLS, UDP/MPEG-TS, dual ASI, and quad tuner VSB (ATSC 1.0). iLux Transport also supports ASI output or ethernet.

The input or outputs can be Multi-Program (MPTS) or Single Program (SPTS). If the input is a MPTS, the iLux Transport can split out each individual channel and provide individual SRT outputs, or can output the complete MPTS without SRT or with new SRT parameters.

You can transfer your signals securely with integrated encryption/decryption for every channel or program.

With the 1U chassis options, you can add dual ASI interfaces that can be used for input or output to route ASI to SRT or SRT to ASI.

With the ATSC 1.0 quad tuner input, you can receive simultaneously 4 ATSC 1.0 multiplexes and SRT the entire ATSC 1.0 Mux or select certain sub channels to send anywhere with SRT for monitoring or other uses.

The iLux Transport supports a large range of potential uses.

Just a few examples:

- Securely transfer point to point a mpts or spts over any network, public or private.
- Securely transfer point to multipoint a mpts or spts to multiple destinations.
- Split out the programs from a MPTS and securely transfer a subset of the programs to 1 or many end destinations.
- Securely transfer ATSC 3.0 STLP to a transmitter site or multiple transmitter sites
- Convert an incoming VBR MPTS or SPTS to CBR and transfer it to any point or multi-point

Three Form Factors

The Mini is a small, rugged, fanless device with four 2.5 GbE ethernet interfaces. This unit is lowpower and completely quiet so can be used on remote locations without concern for background noise. Configurations of 1 or 8 program streams are available. With the 4 physical ethernet ports, connection support to different networks is possible. Also, the management interface can reside on a separate LAN if desired.



The iLux | Transport Mini



Options: Dual ASI in/out - ATSC 1.0 RF quad tuner

The iLux | Transport 1RU

The second form factor is a short depth 1RU chassis with six Gigabit Ethernet links and two 10 Gigabit SFP+. Dual ASI in/out interfaces can be ordered or an ATSC 1.0 quad tuner input. The 1RU is available with configurations of 4, 8, 16, or 32 program services. High bandwidth multiplexes can be supported for reliable routing of services with any mixture of MPTS or SPTS. Additional configurations and program/signal types are available on request.

A third form factor is a standard 1RU chassis with 2 expansion slots. This chassis has redundant power supply. With the 2 expansion slots the dual ASI and quad VSB tuner are both available in the same chassis.

Since **iLux | Transport** is software-defined, simultaneous functions and system reconfiguration is straightforward, providing a powerful and future proofed system. A convenient Web interface with a very rich and easy to navigate User Interface together with diagnostic and maintenance tools makes for simple set up and management.

The **iLux | Transport** platform is part of the iLux family of igolgi products offering exceptional video processing, transport and advanced software algorithms for the highest quality and fastest throughput. iLux products are all simple to set up, monitor, and use, and offer a variety of hardware and software configurations appropriate for any application.

Our products are designed, manufactured, and tested in the United States with USA-based support. Our value proposition is simple: the highest quality, most flexible products at the best price point.

KEY FEATURES



Reliable Media Transport

- Secure Reliable Transport
- UDP/IP in/out
- SPTS, MPTS in/out
- All Audio/Video formats carried over Transport Streams Supported
- SRT Caller, Listener, Rendezvous modes
- HLS Input Mode supports HLS profile selection



Secure Media Transport

- SRT Native Decryption and Encryption - 128/256 AES
- SPTS or MPTS can be secured
- All Audio/Video Formats carried over Transport can be secured



Multi-Channel

- Up to 32 independent SRT channels
- Split MPTS to SPTS with independent SRT controls
- One-to-Many Distribution Option – single sender can support multiple callers



Exceptional Reliability

- 99.999% reliability, systems running 12+ years
- 1:1, N+1 or N+M Redundancy available



Advanced Platform Features

- Fanless, Rugged form factor
- 1RU short depth form factor
- Available as a software license, appliance, or cloud instance



System Adaptability

- Dual ASI interface option . Each ASI is configurable as an input or output
- Quad VSB Tuner option
- Interface to CDNs or other cloud infrastructure
- Low Latency, and configurable to tune SRT for your network conditions

INTUITIVE USER INTERFACE

iLux|Transport is controlled via a feature rich Web Interface which includes real time status information and SNMP MIBs to trap events and alarms.

STATUS: **ACTIVE**

Start

Stop

VERSION: 1.6.376

Channel	Input	Controls	Status
Channel 0		Start Stop Restart	STOPPED Status Log
Channel 1		Start Stop Restart	RUNNING Status Log

STATE
UP TIME
RESYNC COUNT
PROC

ACTIVE
7h 28m 9s since last re-sync
0
3748

STATUS
SIGNAL ACTIVE
SOURCE
INTERFACE
TRANSPORT
STREAM
PROGRAMS

CONNECTION ESTABLISHED!
SPTS SPLIT
IP (239.254.5.211:21100) @ 19.39 mbps

ID: 1001

2

OUTPUT 0
SRT SNDRATE 0
SRT MAXBW 0
SRT SNDLOSS 0
SRT RETRANS 0
SRT RTT 0
SOURCE IDENTITY
0
STATS 0
VIDEO 0
MPEG2 (1920 x 1080) ON PID:81 @ 29.97 fps : 13.40 mbps
ASPECT 0
16:9
METADATA
CAPTIONS:1 AFD:1 BAR:0
AUDIO 0 (2)
AC3 (- 2) ON PID:84 @ 389.06 kbps
AUDIO 0 (3)
AC3 (- 2) ON PID:85 @ 193.05 kbps

SRT LISTENER - IP (127.0.0.1:9200:lo)
14.78Mbps
8589.93Mbps
0
0
0.03ms
NBC5
UDP:171

OUTPUT 1
SRT SNDRATE 1
SRT MAXBW 1
SRT SNDLOSS 1
SRT RETRANS 1
SRT RTT 1
SOURCE IDENTITY
1
STATS 1
VIDEO 1
MPEG2 (704 x 480) ON PID:97 @ 29.97 fps : 3.33 mbps
ASPECT 1
16:9
METADATA
CAPTIONS:1 AFD:1 BAR:0
AUDIO 1 (2)
AC3 (- 2) ON PID:100 @ 195.34 kbps

SRT LISTENER - IP (127.0.0.1:9205:lo)
3.31Mbps
8589.93Mbps
0
0
0.03ms
NONSTOP
UDP:169

Channel 2



Start Stop Restart

RUNNING Status Log

Channel 3



Start Stop Restart

RUNNING Status Log

Channel 0 Channel 1 * Channel 2 Channel 3

Input

Input Interface : IP
SRT Mode : Off
Source NIC : eth2
Source IP Address : 239.254.5.211
Source Port : 21100
Multicast IGMPv3 Source IP : (blank = disabled)
Discover

Output

Output Format : UDP Splitter Mode : SPTS Clear Discover Results

Program			Streams			Output			CBR	SRT					
Name	Num	PMT PID	PID	Type	Codec	NIC	Address	Port	PMT	CBR Options	Mode	Local IP	Latency	Bandwidth	OH Bandwidth
NBC5	5	80	80	PMT	PMT	lo	127.0.0.1	9200	Pass	Mode: Disabled Max Bitrate (kbps):	Listener		100ms	blank=auto	25%
			81	Video	MPEG2 1920x1080@29.97 fps (16:9)										
			84	Audio	AC3 @ 393.65 kbps (1 5 1 channels)										
			85	Audio	AC3 @ 198.33 kbps (1 2 0 channels)										
NONSTOP	6	96	96	PMT	PMT	lo	127.0.0.1	9205	Pass	Mode: Disabled Max Bitrate (kbps):	Listener		100ms	blank=auto	25%
			97	Video	MPEG2 704x480@29.97 fps (16:9)										
			100	Audio	AC3 @ 198.33 kbps (1 2 0 channels)										

SPECIFICATIONS

Transport Processing Inputs

MPEG2-TS over UDP Unicast or Multicast
SPTS or MPTS UDP/IP

HLS HLS Multi Profile
Selection option to lock
profile in use

Dual ASI ASI configurable
input/output

SRT Caller, Listener and Rendezvous modes
SPTS or MPTS
AES 128 or AES 256
Configurable latency and SRT parameters

Quad VSB Tuner Four tuner RF input
ATSC 1.0 VSB

Transport Processing Outputs

MPEG2-TS over UDP Unicast or Multicast
SPTS or MPTS UDP/IP

SRT Caller, Listener and Rendezvous modes
SPTS or MPTS
AES 128 or AES 256
Configurable latency and SRT parameters
Multi-caller support (up to limit of port
bandwidth)

Transport Processing Inputs

Web Based User Interface
SNMP Mibs, downloadable from UI
Channel configuration backup and restore
Primary/Secondary input with automatic failover

Physical

Dimensions 1U Chassis: 430(W) x 252(D) x 44(H) mm
Mini Chassis: 125(W) x 109(D) x 39.5(H) mm
1U Server 650 mm long

Power 1U Chassis: 250W power
Mini Chassis: 40W power
1U server with dual power 400W

Environmental Specification 1U Chassis and 1U Server
Operating Temperature: 0 ~ 50°C
Storage Temperature: -40 ~ 85°C
Humidity: 10% ~ 95% @40°C (non-condensing)

Mini Chassis
Operating Temperature: -20 ~ 60°C
Storage Temperature: -40 ~ 85°C
Humidity: 10% ~ 95% @40°C (non-condensing)



Our Mission

First and foremost, igolgi is an engineering and development company. Our engineering staff has years of experience in every type of compression and encoding technology, and we are experts in software control and interface. Our principal engineers hold over 200 patents in compression related projects. For over a decade we have provided innovative, flexible, and high-quality solutions for the broadcast, cable, LPTV and government markets.

igolgi is an American company - all development, engineering, production, and support is based in the USA.

As reliable open Internet transport technologies evolve and mature, igolgi is a partner you can count on to ensure every aspect of your design and implementation meets today's needs and is ready for future growth and expansion.

This is our "sweet spot". Let us help you.

Call or email us for a no-obligation discussion of your current and future needs.

Our Promise



Highest Reliability

Our transport processors have carrier grade four 9s reliability.



Simplest to Use

Our enhanced user interface makes set up, monitoring, and changes fast and simple.



Most Configurable

VSB, QAM, Satellite or IP inputs are all configurable for maximum flexibility.



Easiest Upgrade

Update the software and change out hardware (if required) to keep you future proofed.



Superior Support

Our support is USA-based, and our PremierPlus® gives you 24x7x365 expanded support and service.



Best Value

igolgi has it all: technology, flexibility, expandability and support at a price that will surprise and please you.

STAY CONNECTED



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