



Envivio® Convergence Series™ 4Stream™

Satellite TV to IP Gateway

Delivers Satellite TV services via IP for transcoding using Envivio® Convergence and Mobile Series Encoders

4Stream is a key component within the Envivio Convergence Series product range. 4Stream demodulates, decrypts and demultiplexes DVB-S and DVB-S2 Direct-to-Home (DTH) satellite TV services, and delivers them as MPEG-2 Transport Streams over an IP network. These satellite services can then be transcoded from MPEG-2 to encoding profiles suitable for delivering Mobile TV, Internet TV and IPTV services using Envivio IP input enabled 4Caster™ C4 and M2 encoders.

Using 4Stream rather than traditional integrated receiver decoders (IRDs) that decode satellite signals and deliver them as baseband video feeds, has significant advantages. Firstly, the number of gateway devices required is drastically reduced. 4Stream, with its dual L-Band input, can take the place of up to 24 individual IRDs, greatly reducing both cost and the rack space required to house the system. Secondly, 4Stream allows signals to be routed to the encoder subsystem using an inexpensive and flexible standard IP router, rather than a costly specialized analog or digital video matrix. Finally, because transcoding is done directly in the Envivio 4Caster encoder and because there is no intermediate baseband video transfer between the gateway device and the encoder (as there is with IRDs), the transcoded video quality is significantly higher.

In order to ensure carrier-grade service availability, 4Stream can be supplied in an N+1 configuration, with automated redundancy switch over controlled by the Envivio 4Manager™ product. In summary, 4Stream delivers a high-density, low-cost satellite gateway solution that guarantees the highest possible encoding quality whatever the video application.

Features

- Satellite TV to IP Gateway converting encrypted MPEG-2 satellite feeds to unencrypted MPEG-2 streams for routing on an IP network
- Delivers up to 24 services in a single 1RU device
- Two L-Band Inputs
- DVB-S and DVB-S2 demodulation
- Two Conditional Access Module (CAM) slots per device
- Wide range of DTH Conditional Access Systems supported
- Advanced PID filtering allowing easy service selection
- Configurable SPTS / MPTS, multicast / unicast IP outputs



Product Highlights

- Satellite TV to IP gateway supporting 2 transponders and up to 24 encrypted services
- Allows Satellite TV services to be routed to encoders as MPEG-2 TS over IP
- Drastically reduces cost and greatly increases density of both the gateway and service routing sub-systems
- IP video interconnect delivers improved picture quality
- For use with Envivio 4Caster C4 and M2 encoders

Applications

- Satellite TV to Mobile TV transcoding
- Satellite TV to Internet TV transcoding
- Satellite TV to IPTV transcoding



Envivio® Convergence Series™ 4Stream™

Satellite Inputs

DVB-S and DVB-S2 L-Band inputs

Modulation: QPSK / 8PSK
Two L-Band inputs (75 ohms), F-type connectors
Symbol rate range: 1 to 45 Msymbol/s
Frequency range: 950 MHz to 2150 MHz
LNB control (LNB power feed V, I, LNB 22 kHz freq tolerance, amplitude)
Spectral inversion: on / off / auto
Input signal level: -60 to -30 dBm

IP Outputs

Gigabit Ethernet IP output

3 x 1000 Base-T Gigabit Ethernet
Output rate: up to 500 Mbps
Protocol: DVB over UDP, DVB over RTP
Unicast or Multicast
SPTS and MPTS output support

Advanced Features

PSI/SI generation, processing and insertion
Pass-through service support
PID filtering, PID remapping
De-jittering algorithm
Time shared services (ES type filtering)
High Availability: N+1 redundancy support available
Channel bonding (Ethernet interface redundancy)

Conditional Access

DVB-CI – Common Interface
CAM module: Two PCMCIA slots – EN 50221
Compatibility with the following CAS: *
• Viaccess
• Conax
• Irdeto
• Mediaguard
• Cryptoworks
• Nagravision

Monitoring and Control

Local
LCD Panel: IP parameters, bit rate monitoring
Remote interface
Web Interface
SSH Secured command line interface
SNMP monitoring and alerts

Physical and Power

Dimensions

Width: 444 mm (17.5")
Depth: 390 mm (15.4")
Height: 44 mm (1.7") - 1RU

Weight

7 kg (15.4 lbs)

Power

Input: 100-240 VAC auto-ranging
Consumption: 75 W

Agency Compliance

EMC Compliance: CE, UE 89/336/EEC, EN 61000-6-2, N55022, EN55024
Safety Compliance: UE 73/23/EEC EN60950: 2000

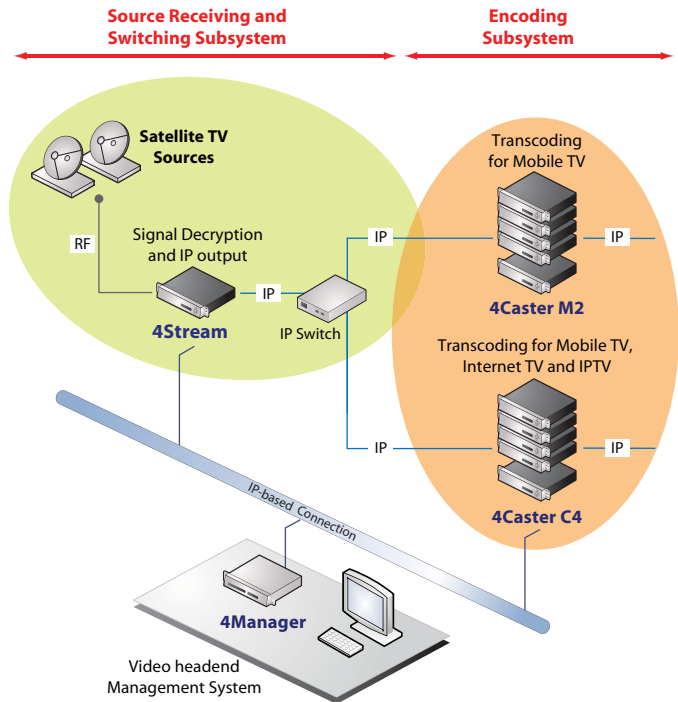
Environmental

Operating temperature: 0 to 50° C (32 to 122° F)
Non-operating/storage temperature: -20 to 60° C (-40 to 158° F)
Non-operating relative humidity: 5 to 95% at 40° C non-condensing

Ordering Information

- **4Stream SG2-4:** Satellite Gateway with 2 RF inputs supporting up to 4 encrypted services (up 2 services per input)**
- **4Stream SG2-24:** Satellite Gateway with 2 RF inputs supporting up to 24 encrypted services (up 12 services per input)**
- **SG2 20 Service Upgrade:** Upgrade from 4Stream SG2-4 to SG2-24

IP Video Headend



* Contact Envivio for a detailed list of CAS/CAM compatibility
** Upper limit depends on CAM/CAS used

For more information or to contact Envivio, visit:

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