











bc-techs

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VegaMux Multiplexer is a carrier-grade head-end infrastructure element enabling flexible manipulation of MPEG2 Transport Streams in digital networks. VegaMux provides multiplexing, PSI/SI processing and scrambling of many services received over IP and delivered over IP and ASI interfaces. Its robust, extensible and highly scalable design supports MPEG re-multiplexing functionality, including PID remapping and filtering, insertion/regeneration of PSI/SI tables, service redundancy as well multiple IP sockets containing MPTS and SPTS. This configuration not only reduces rack space and power requirements, but also simplifies network infrastructure while delivering a highavailability solution.

The extended PSI/SI capabilities of VegaMux allow addressing many unique situations and challenges. All PSI and SI tables can be regenerated and played out, changing dynamically according to input changes. The optional built-in DVB-CSA scrambler with DVB Simulcrypt interface allows easy integration with many leading Conditional Access (CA) systems, e.g. KeyFly 2.0 (SIDSA CAS).

The VegaMux series have different models varying from a ultracompact solution (board housed in a EtherTV chassis) to a 1RU compact unit. Depending on the model, different input/output interfaces are available. ASI interfaces can be added using EtherTV Bridge devices.

KEY FEATURES

- TS multiplexing/re-multiplexing, scrambling and IP streaming
- Multiple MPTS/SPTS received over IP and multiple MPTS generated delivered over IP. ASI output is
 available in POL-VEGA-MUX01 model
- MPEG-2 TS over IP (UDP/RTP); multicast and unicast addressing are supported
- Advanced management of PSI/SI tables, service filtering, and remapping
- Extended PSI/SI capabilities:
 - PSI/SI inserting (e.g. EPG, play-out carousels...)
 - Dynamic PSI/SI re-generation
 - EIT multiplexing, demultiplexing and re-multiplexing
 - $\circ~$ Easy and powerful Logical Channel Number (LCN) configuration
- Optional built-in DVB-CSA Scrambler and DVB Simulcrypt interface): simultaneous and multiple conditional access (CA) systems supported. This option includes BISS encryption
- Optional Multiprotocol Encapsulation (MPE): multiple IP streams can be encapsulated and multiplexed in the outgoing TS
- Open loop statistical multiplexing (OLSM) provides the best QoS maximizing the number of available programs
- Easy configuration via POLARplus Manager software tool
- Device configurations can be saved and restored, making frequent configuration changes easier
- 1RU/19" and ultra-compact solution available

SPECIFICATIONS AND REQUIREMENTS

- ASI Interface (POL-VEGA-MUX01)
 - ✓ 2x mirrored outputs
 - ✓ Connector: BNC female, 75 W
 - ✓ Maximum throughput: 50 Mbps
- ✓ Input Return Loss: > 17dB

Network Interface (Streaming and Management)

- ✓ 10/100 (RJ45) half/full duplex, auto negotiate in
- POL-VEGA-MUX01 and POL-VEGA-MUXC
- ✓ 2 x 1GbE in POL-VEGA-GMUX01

Network Protocols

✓ UDP/RTP (Streaming Multicast/Unicast)

- ✓ TCP/IP (Management)
- ✓ SAP/SDP
 ✓ IGMP v1, v2
- 10/01/01, 02
- Power & Physical:
 - ✓ See Table 1
- Environmental:
 - ✓ Agency Approvals: CE, RoHS
 - ✓ Operating Temp. & humidity: 0 to 50°C, < 80 % RH</p>
 - ✓ Storage Temp. & humidity: -10 to 70°C, < 95 % RH

For more information, please email iptv@bc-techs.com. All specifications are subject to change without notice





Limited Warranty:

✓ 1-year standard limited warranty. Warranty extensions are available

ORDERING INFORMATION

- POL-VEGA-MUXC: VegaMux multiplexer in compact solution, one IP output
 - ✓ MUX-CSA: VegaMux option; simulcrypt interface for CSA scrambling
 - ✓ MUX-MPE: VegaMux option; Multiprotocol Encapsulation support



POL-VEGA-MUX01: VegaMux multiplexer in 1RU solution, one IP/ASI output

- ✓ MUX-CSA: VegaMux option; simulcrypt interface for CSA scrambling
- ✓ MUX-MPE: VegaMux option; Multiprotocol Encapsulation support
- POL-VEGA-GMUX01: VegaMux multiplexer in 1RU solution, up to eight IP outputs
 - ✓ MUX-CSA: VegaMux option; simulcrypt interface for CSA scrambling
 - ✓ MUX-MPE: VegaMux option; Multiprotocol Encapsulation support

Table 1: VegaMux models features

| | Output | | Number of | Processing | Ethernet | Power | Physical | |
|-----------------|--------|-----|-----------|-------------------|------------|-------|--------------------------|----------------|
| IP | IP | ASI | outputs | Bitrate (Mbps) | Interface | (W) | Dimensions (H/W/D) mm | Weight (Kg) |
| POL-VEGA-MUXC | x | - | 1 | 80 | 1 x 10/100 | 20 | 129, 20, 174 | 0.4 |
| POL-VEGA-MUX01 | х | x | 1 | 80 | 2 x 10/100 | 25 | 44, 450, 345 | 4.5 |
| POL-VEGA-GMUX01 | x | - | 8 | 320 | 2 x GbE | 260 | 44, 450, 356 | 7.8 |







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