Description

IP Media Platform with 100Gbps packet switching and fault tolerant dual trunk interfaces

Multi-function / multi-application flexibility

Pure IP-based edge gateway w/ ST 2110 & NMOS

Features & Benefits

- Ultra-versatile, scalable and high performance next generation design in a compact footprint
- Transports widest/densest variety of contribution-quality media across managed and unmanaged IP networks
- Interoperable with MD8000, MDP and MDX product portfolios as part of the Media Links 100G Ecosystem solution

Example use Cases

- Robust, reliable transport over Ground to Cloud
- Large channel count, pristine UHD/HD video transport
- Tiered high speed IP transport networking w/ full protection and hitless switching
- Remote/At-Home/Distributed production applications
- In-studio applications as a high capacity IP gateway

Technical overview

- Up to 128 services per 2RU chassis
- Standards compliant processing with ST 2022-2/6, ST 2110-20/22/30/40, JPEG2000, JPEG-XS and VSF TR-01/07/08
- Easy adaptation to L2/L3 networks with integrated switching and standard protocol support
- Multiple 100Gbps Ethernet interfaces
- Fully redundant hardware design, carrier class platform w/ NEBs compliance
- Management via standalone Web GUI or ProMD-EMS software

Related Products

ProMD EMS 2.0 Software

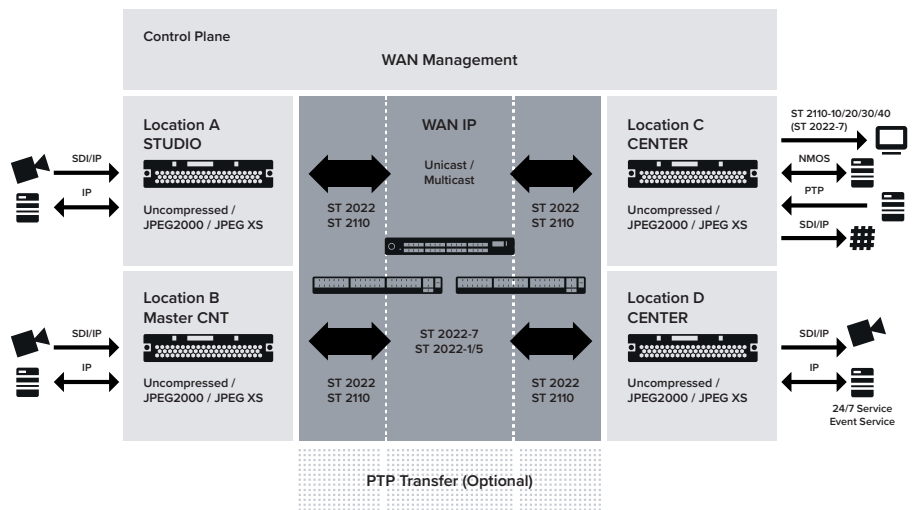*Media Links MDP, MD and MDX Product Platforms*

Datasheet

XSCEND – IP Media Platform
Go Beyond IP

Xscend is our all new ultra-dense, ultra-versatile media platform, designed for the network edge as a reconfigurable, evolvable, IP migration gateway. Incorporating hybrid hardware and software engines, its adaptable architecture accommodates changing network protocols, user workflows, physical interfaces, video formats and codec algorithms.

Application flexibility is the hallmark of Xscend's next generation design, delivering unprecedented capabilities in a small 2RU footprint. The platform addresses the migration from SDI-to-IP and IP-to-IP environments along with high density, low latency remote/distributed production applications, including Ground to Cloud connectivity. Up to 128 contribution quality media and data services across both managed and unmanaged (open internet) networks can be supported.

Through its hardware modularity, software upgradeability and license configurability, flexible workflows can be adapted to support a wide variety of diverse use-cases.

Example use

Service Specifications & Supported Parameters

Xscend Front and Rear (Card configuration optional)

General

- Modular based 2RU platform
- Flexible and user-defined workflow per service basis with software upgrade and license configuration

Hardware

- 3 Media Processing Units with MPU-HD-BNC8, MPU-HDBNC16 and MPU-SFP4.
- 2 Trunk units with built-in L2/L3 switch trunk unit and non-switch built-in trunk unit.
- Full redundant hardware for power supply, controller, fan, out of band interface, BB input and trunk unit.

Signal Workflow

SDI to IP Video service

- SDI to ST 2022-6, SDI to ST 2022-2, SDI to ST 2110-20/30/40, SDI to ST 2110-22/30/40, ASI to ST 2022-2

IP to IP Video service

- ST 2022-2 to ST 2022-6, ST 2110-20/30/40 to ST 2110-22/30/40, ST 2022-6 to ST 2110-20/30/40, ST 2022-6 to ST 2110-22/30/40, ST 2022-2 to ST 2110-20/30/40, ST 2022-2 to ST 2110-22/30/40
  *ST 2022-2: JPEG2000(VSF TR-01) & JPEG-XS(VSF TR-07)
  *ST 2110-22: JPEG-XS(VSF TR-08)

Audio service

- MADI to ST 2110-30/31/AES67

Data service

- Transparent, Double-Tag, IP Tunneling, RTP Tunneling

Media Interface & Formats

- Video Format: 2160p/59, 2160p/50, 1080p/59, 1080p/50, 1080i/59, 1080i/50, 720/59, 720p/50, 525i, 625i
- SDI Interface: 12G-SDI, 3G Quad, 3G/HD/SD-SDI, DVB-ASI
- ST 2110/2022 Interface: 1G/10G/25G/100G Ethernet
- Audio Interface: MADI, AES67, ST 2110-30/31
- Data Interface: 100M/1G/10G/25G Ethernet

Functions

- Unicast ARP, Multicast IGMPv3 or Static service provisioning
- Frame Synchronizer
- Built-in Signal Generator
- In-Service Packet Generator and Monitor
- IEEE 1588v2, SMPTE 2059-2 PTP OC/TC/BC
- ST 2022-1/5 FEC, ST 2022-7 Hitless

Physical

- 2RU: 481 (W) x 88 (H) x 500 (D) mm
- AC 95V~240V or DC-48V, 1,000W (max)
- Operational ambient temperature, 0 ~ 40℃, non-condensing
- All hardware is hot-swappable in operation

Management

- Configuration storage on SD memory card
- Self-diagnostics
- LLDP on trunk interface for auto-discovery and loop detection of Media Links equipment
- Multi-level secure user access
- Front panel status and error LEDs
- Rapid profile-based configuration and service provisioning
- Direct management via standalone Web GUI and ProMD EMS software
- Monitoring via SNMP v2c/v3 & Trap
- NMOS IS-04, 05, 08, 09
- API, SNTP, Syslog

Applications

- Reliable media transport over Ground to Cloud
- Large channel count UHD/HD video transport
- Tiered high-speed IP transport networking with full protection and hitless switching
- High capacity Remote/At-Home Production
- High capacity IP gateway in-studio application

Regulatory

- CE/CSA
- UL
- NEBS Level 1 & 3