PART OF THE

Media Links Everything,

Everywhere IP Ecosystem™

Edge Devices

Gateway Encoder/Decoders

DATASHEET

Version 5.1



Description

Now with 4K JPEG-XS, MDP3020 MAX is a compact (half rack) IP media gateway for the network edge, ideal for portable, protected, remotely configurable applications.

Examples include Local Access Point to Point connections, Contribution quality broadcast feeds, remote production environments, intra studio TV exchange networks and more.

Features & Benefits

With its small footprint, the MDP3020 MAX can be used in simple pairs or as a modular building block that can be combined and recombined in any arrangement with other Media Links transport products to suit your network need. The device offers multi format support for 4K, 3G, HD, DVB-ASI and SD-SDI video, plus audio and data.

The MAX features multiple SDI inputs/outputs, high capacity dual trunk interfaces and upgradable functionality.

Technical overview

- Compatible with Xscend, MD8000 and MDX platforms
- Standards based (including 2022-2/6/7, TR-01/07)
- · Simultaneous video, audio and data services
- Two 10GbE / 1GbE trunk interfaces
- · In/Out Band Management
- Up to two 10Gb/1Gb Data ports
- Resolutions up to 4K (depending on configuration)
- · On board provisioning interface
- Ultra stable clock for DVB-ASI Transport

Supports:

- Seamless (Hitless) Protection Switching of Video, Audio and Data
- 10GbE x 2 w/ Hitless Protection
- $1\,\text{GbE}\ x\ 2\ \text{w}/\ \text{Auto}\ \text{and}\ \text{Hitless}\ \text{Protection}$
- 12G-SDI and Quad Link 3G-SDI
- Frame Synchronization

Related Products

MDP Series PSU
ProMD EMS Software

DATASHEET

MDP3020 MAX IP Media Gateway

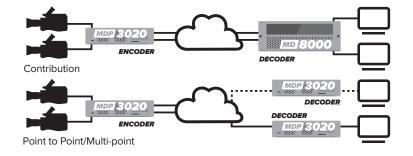
The MDP3020 MAX is an advanced, customizable, and remotely configurable standalone IP media gateway for video, audio, and data transport applications.

Highly configurable, easy to deploy. With a compact half-1RU form-factor the MAX is engineered to deliver the widest range of re-configurable application workflows with support for up to 4K as well as uncompressed 3G, HD, and SD video, 16 channel 8 pair AES audio, and protected data connectivity and transfer. The device is available with either optical or electrical interfaces, and is supported by a range of capabilities that focus on quick and efficient install, turn-up and modification.

JPEG2000 2K Electrical or Optical	JPEG-XS 2K Electrical or Optical	JPEG-XS 4K Electrical
2x JPEG2000 or Uncompressed Video plus 2x Data (2Tx/0Rx, 0Tx/2Rx, 1Tx/1Rx)	4x JPEG-XS or Uncompressed Video plus 1x Data (3Tx/1Rx, 1TX/3Rx, 2Tx/2Rx, 4Tx/0Rx or 0Tx/4Rx) OR 3x JPEG-XS or Uncompressed Video plus 2x Data (2Tx/1Rx or 1Tx/2Rx)	2x JPEG-XS or Uncompressed Video plus 1x Data (2Tx/0Rx, 0Tx/2Rx, 1Tx/1Rx)
3G/HD/SD-SDI/DVB- ASI	3G/HD/SD-SDI/DVB-ASI (Uncompressed SD-SDI only)	4K UHD (2x 12G-SDI or 1x Quad Link 3G-SDI)
Dual 10G/1G Trunks	Dual 10G/1G Trunks	Dual 10G/1G Trunks

MDP3020 MAX example applications

The MDP3020 is ideally suited to smaller scale remote production, MD8000 edge, TV distribution, or any local point-to-point application where economical IP media transport/conversion is required.



MDP3020 MAX™ Rear View with Electrical module

Service
Specifications &
Supported Parameters

Optional configuration for JPEG2000 or JPEG-XS versions 4K JPEG-XS Video available only with Electrical module



MDP3020 MAX™ Rear View with Optical module

Optional configuration for 2K JPEG2000 or JPEG-XS versions only





Video

- · SDI or ASI inputs
- JPEG2000 VSF TR-01 Compression or JPEG-XS – VSF TR-07 Compression
- SMPTE 2022-6 or 2022-2 RTP encapsulation
- SMPTE 2022-5 or 2022-1 Tx FEC
- · Internal color bar generator

Audio

- 16 audio channels (8 AES)
- SDI input signal audio transmission (Transmits audio based on SMPTE302M)
- Internal audio test generator (1 KHz tone)
- · Ancillary data transmission
- MADI using SFP's on Media ports 1 or 2

Transport

- Low jitter/wander DVB-ASI transport w/ high performance clock stability
- SDI Standard (SMPTE 259M/292M/424M)
- SDI over IP Standard (SMPTE 2022-5/6)
- Uncompressed and/or compressed transmission of two 3G/HD/SD SDI or two DVB-ASI video streams using the JPEG2000 2K version
- Uncompressed and/or compressed transmission of up to four 3G/HD/SD SDI or four DVB-ASI video streams using the JPEG-XS 2K version
- Compressed transmission (only) of two 12G-SDI or one Quad-link 4K video stream using the JPEG-XS 4K version
- Hitless protection conforming to SMPTE 2022-7
- Frame Synchronization withJPEG-XS version (Black Burst or Tri-Sync Input)

Interfaces

MDP3020 MAX™ Front View

- Available with either electric (BNC, up to 12G-SDI) or optical
- 2x video input/output ports w/ JPEG2000 2K version (includes monitor ports)
- 3x or 4x video input/output ports w/ JPEG-XS 2K version (depends on configuration and includes monitor ports)
- Dual 10Gbps trunks
- Up to two 1G/10G Data Ports. 9.3 Gbps Total throughput using Hitless Data
- Built-in HDMI output port, supports HDMI 2.0/ HDCP 2.2
- Front panel micro-USB serial management port @ 115,200bps
- RJ-45 Ethernet console port

Management

- Management and configuration files support on SD Card
- Self-diagnostics
- · LLDP for auto-discovery
- Multi-level secure user access
- Front panel status and error LEDs
- · Rapid profile-based configuration and
- · service provisioning
- · Operates under ProMD-EMS software control
- · Built-in ETR 101290 monitoring

Protocols

- IPv4
- HTTP for web management
- SSH (Telnet) command line interface (CLI)
- SNMPv2c, including traps
- Syslog
- NTP
- Ping
- IGMP
- ARP

Media Links Ecosystem Compatibility

- MD8000 STTX/RX Video Cards
- MD8000 Multiport Ethernet data cards
- MDX Core and Aggregation Switches

Physical

- Form Factor 1RU, Half-rack width; 2 units per standard 19" rack width
- Dimensions: 215 mm (W) x 42 mm (H) x 300 mm (D) / 8.46" (W) x 1.65" (H) x 11.81" (D)
- Weight: 2.7Kg / 5.95lbs
- Power Consumption: 108VA or less
- Supports dual power supplies for redundancy

Regulatory

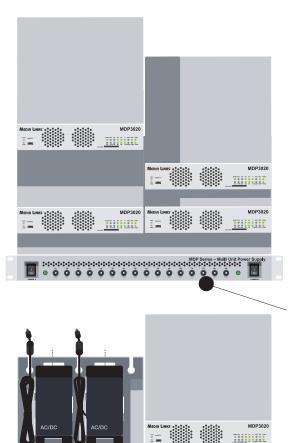
- CFR 47 FCC part 15 Subpart B Class A (USA)
- EN 55032:2012/AC:2013 Class A ITE (EU)
- NEBS Level 1
- ICES-003 Issue4 Class A (Canada)
- UL 60950-1-07, Second edition
- · CSA 60950-1-07, Second edition
- IEC 60950-1:2005 (Second Edition)+Am 1:2009+Am2:2013
- · RoHS compliant

Applications

- SDI/IP, IP/IP Media Conversions
- · Contribution Quality Broadcast Feeds
- Studio-to-Studio Media Exchange
- Remote Production and OB Van Environments
- Transmission equipment for distribution networks w/ extended reliability requirements & synchronization

About the MDP Series of products

The MDP Series offers a Modular System of encoders, decoders and accessories you can easily combine together to create transportable, quick and agile deployments at the edge that deliver Video, Audio and Data transport over IP-based networks. All MDP devices come with proven QoS including Hitless protection and redundant power supply support.



MDP 3020 MAX**

MDP3020 MAX™

Up to 4K Video, Audio or Data. Dual 10G Trunks

	Optical Rear Module	Electrical Rear Module	
JPEG2000 2K	0	•	3G/HD/SD-SDI/DVB-ASI 2x JPEG2000 or Uncompressed Video plus 2x data
JPEG-XS 2K	0	•	3G/HD/SD-SDI/DVB-ASI 4x JPEG-XS or Uncompressed Video plus 1x Data
			OR 3x JPEG-XS or Uncompressed Video plus 2x Data
JPEG-XS 4K		•	4K-UHD 2x 12G-SDI or 1x Quad Link 3G-SDI Video plus 1x Data (Electrical BNC only)

MDP Series Multi-unit Power Supply Module

Power supply unit for up to 8 MDP Series devices with redundancy

MDP Series Power Supply Holder Module

Mount 2x Power supplies alongside your MDP Series device for power redundancy

MDP Series Rack Mount Module

Mount your MDP Series devices to a traditional 19" rack enclosure. Supports any module configuration and/or Power Supply Holder Module

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