

Blackmagic SDI Expander 8x12G



Blackmagic SDI Expander 8x12G converts in 2 directions at the same time! It converts 8 independent channels of 12G-SDI to SMPTE-2110, while simultaneously converting a separate set of 8 channels of SMPTE-2110 back to 12G-SDI. That's 16 channels of conversion in a single rack unit! The SMPTE-2110 connections use two 100G Ethernet ports for full SMPTE-2022-7 redundancy. There is also a separate NMOS control Ethernet port and dual redundant AC power supplies for reliable broadcast operation.

\$3,295

Connections

100G 2110 IP Networks

2 x 100G QSFP28 connections. Supports ST 2022-7 redundant delivery of IP streams over two 2110 networks.

Senders and Receivers per 100G Pair

8 x Ultra HD or HD.

1G Control Network

1 x 1G RJ45 for NMOS control, configuration and firmware updates.

SDI Video Inputs

8

SDI Video Outputs

8

SDI Rates

1.5G, 3G, 6G, 12G.

SDI Audio Inputs

16 Ch embedded audio on SDI inputs.

SDI Audio Outputs

16 Ch embedded audio on SDI outputs.

SMPTE ST 2110 IP Audio Inputs

16 Ch embedded audio on each 2110 IP video stream over 100G Ethernet.

SMPTE ST 2110 IP Audio Outputs

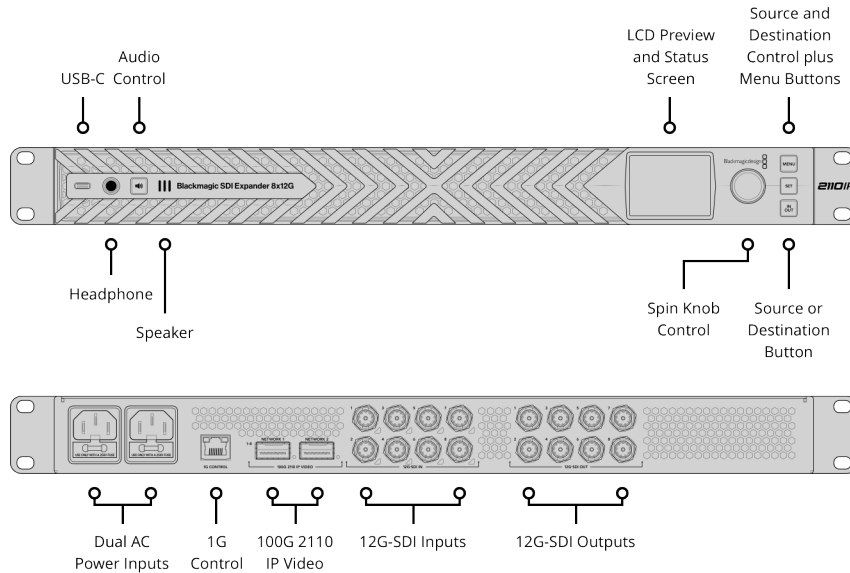
16 Ch embedded audio on each 2110 IP video stream over 100G Ethernet.

Analog Audio Outputs

1 x 6.35 mm headphone jack.

Power

2 x IEC C14 power inputs.



Video Standards

SD Video Standards

525i59.94 NTSC, 625i50 PAL

HD Video Standards

720p50, 720p59.94, 720p60
1080i50, 1080i59.94, 1080i60
1080p23.98, 1080p24, 1080p25,
1080p29.97, 1080p30, 1080p50,
1080p59.94, 1080p60
1080PsF25, 1080PsF29.97, 1080PsF30

Ultra HD Video Standards

2160p23.98, 2160p24, 2160p25,
2160p29.97, 2160p30, 2160p50,
2160p59.94, 2160p60

SMPTE Compliance

SMPTE 292M, SMPTE 296M,
SMPTE 424M, SMPTE 425M,
SMPTE 2022-7, SMPTE 2081-1,
SMPTE 2081-10, SMPTE 2082-1,
SMPTE 2082-10, SMPTE 2084,
SMPTE 2108-1, SMPTE ST2110-20,
SMPTE ST2110-21, SMPTE ST2110-30,
SMPTE ST2110-40.

SDI Color Precision

10-bit 4:2:2 YUV

Color Space

Rec. 709, Rec. 2020.

SDI Auto Switching

Automatically detects HD and Ultra HD. Level A and B is automatically detected on 3G-SDI input and user selectable on 3G-SDI output.

IP Video Compliance

SMPTE 2110-20

(Uncompressed Video)

IGMP v2

SMPTE 2110-21 (Traffic Shaping)

Sender: Narrow

Receiver: Narrow, Wide Synchronous,
Asynchronous

SMPTE 2110-30 (PCM)

Audio Conformance level: Level C

SMPTE 2110-40 (Ancillary Data)

Full access to entire SMPTE ancillary data stream. Includes RP 188/SMPTE 12M-2, closed captioning and HDR static metadata.

Codec

Blackmagic IP10 codec optional for 2160p59.94 and 2160p60 as 2110 IP video.

Precision Time Protocol

IEEE 1588-2008 (PTP v2)

ST 2059-1

ST 2059-2

NMOS IS-04 Discovery and Registration

v1.3.2

Peer-to-peer via mDNS/DNS-SD

NMOS IS-05 Connection**Management**

v1.1.2

NMOS BCP-002-01

Natural Grouping

NMOS BCP-004-01Receiver capabilities

Audio

Audio

Front panel audio monitor speaker with speaker control button, plus 6.35 mm headphone socket.

Displays

Display

Built in 2.2 inch LCD for monitoring video, audio, video standard and timecode plus menu settings. Use search dial to scrub between all available inputs and monitor on front panel.

Control

Built in Control Panel

2.2 inch color display, 3 button control panel and spin knob for source and destination setup and menu settings.

External Control

RJ-45 Ethernet and USB-C.

Operating Systems



Mac 15.0 Sequoia,
Mac 26.0 Tahoe or later.



Windows 11

Power Requirements

Power Supply

2 x 100 - 240V AC 50/60Hz internal power supplies.

Power Inputs

2 x IEC C14 sockets.

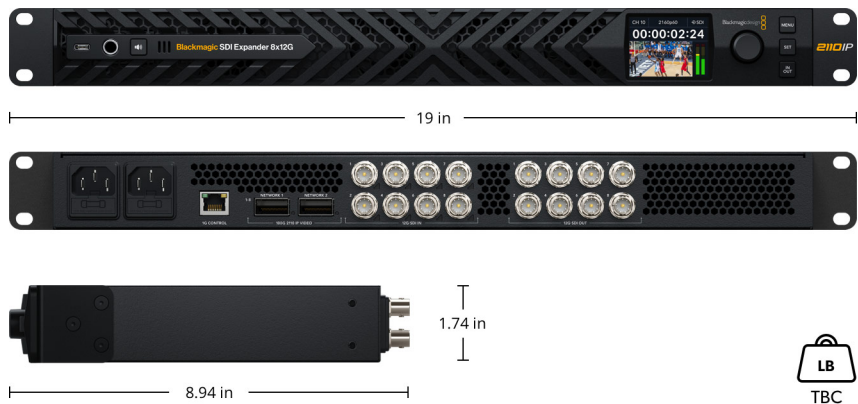
Power Usage

TBC

Physical Installation

1 rack unit.

Physical Specifications



Environmental Specifications

Operating Temperature

5° to 40° C (41° to 104° F)

Storage Temperature

-20° to 45° C (-4° to 113° F)

Relative Humidity

0% to 90% non-condensing

What's Included

Blackmagic SDI Expander 8x12G
Welcome wallet with QR code for software download

Warranty

1 Year Limited Manufacturer's Warranty.

Blackmagic Design Authorized Reseller