



# 12GM

12GM is a compact SDI transport converter that enables 12G-SDI to quad link 3G-SDI and quad link 3G-SDI to 12G-SDI conversion. The muxer/demuxer supports 4K, UltraHD, 2K, HD and SD workflows and conversions from quad link SDI signals to single link SDI signals, and vice versa at 12G, 6G, 3G and 1.5G bit rates. Both Square Division (Quadrant) and Two Sample Interleave (2SI) input and output mappings are supported.

<https://www.aja.com/products/12gm>

## Supported Input Video Formats

- (4K) 4096x2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (UltraHD) 3840x2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (2K) 2048x1080p 50, 59.94, 60
- (HD) 1920x1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
- (HD) 1920x1080i 50, 59.94, 60
- (HD) 1280x720p 50, 59.94, 60
- (SD) 625i 50
- (SD) 525i 59.94
- RGB and YCbCr, 4:4:4/2:2, 8, 10, 12-bit

**Note:** Raster and Frame Rate Dependent, please see 12GM Video Formats in Documents and Manual.

## Video Input Digital

- 4x 12G-SDI BNC, SMPTE 259/292/424/2081/2082
  - Single Link 12G/6G/3G/1.5G-SDI
  - Quad Link 3G-SDI Level A or B-DL (4x 3G), SMPTE-425-5
  - Single Link 3G-SDI Level A, B-DL, or B-DS, SMPTE 425
  - Quad Link HD-SDI (4x 1.5G)
  - Single Link 4K/UltraHD/HD/SD

## Video Output Digital

- 4x 12G-SDI BNC, SMPTE 259/292/424/2081/2082
  - Single Link 12G/6G/3G/1.5G-SDI
  - Quad Link 3G-SDI Level A or B-DL (4x 3G), SMPTE-425-5
  - Single Link 3G-SDI Level A, B-DL, or B-DS, SMPTE 425
  - Quad Link HD-SDI (4x 1.5G)

## Supported Conversions and Functions

- Quad 3G-SDI Level A to Single 12G-SDI
- Quad 3G-SDI Level B-DL to Single 12G-SDI
- Single 12G-SDI to Quad 3G-SDI Level A
- Single 12G-SDI to Quad 3G-SDI Level B-DL
- Quad 1.5G-SDI to Single 6G-SDI
- Single 6G-SDI to Quad 1.5G-SDI
- Quad 3G-SDI Level A to Quad 3G-SDI Level B-DL

- Quad 3G-SDI Level B-DL to Quad 3G-SDI Level A
- Two Sample Interleave (2SI) to Square Division (Quadrant) pixel mapping
- Square Division (Quadrant) to Two Sample Interleave (2SI) pixel mapping
- Pass through of Single Link 12G, 3G, 1.5G and 270M SDI video
- Distribution Amplifier support (1x4)
- Input signal diagnostics
- Input timing analyzer for quad link signals

## Cable Equalization

(Belden 1694A coax)

- 12 Gbps, 70m
- 6 Gbps, 100m
- 3 Gbps, 140m
- 1.5 Gbps, 200m
- 270 Mbps, 300m

## Audio Input / Output Digital

- Passes SDI embedded audio, 24-bit, up to 16-channels

## User Interface

- USB port used with supplied cable and Mini-Config software application to configure device and access diagnostics via macOS or Windows.

## Size (w x d x h)

- 5.76" x 4.02" x 0.90" (146.31 x 102.11 x 22.86 mm)

## Weight

- 0.6 lb (0.3 kg)

## Power

- 5-16 VDC regulated, 12 watts, power supply required, included with purchase
- AC Adapter: 100-240VAC, 50/60 Hz, universal input



## Environment

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- Safe Operating Temperature: 0 to 40 C (32 to 104 F)\*
- Safe Storage Temperature (Power OFF): -40 to 60 C (-40 to 140 F)
- Operating Relative Humidity: 10-90% noncondensing
- Operating Altitude: <3,000 meters (<10,000 feet)

\*12GM uses approximately 12 watts of power and convection cooling. It will be very warm to the touch, which is normal. When installing the unit, mount in a location where it has access to air for proper cooling. Do not stack the 12GM with other Mini-Converters.