



# 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.

**\$895 US MSRP**

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

## Supported Input Video Formats

Link	Format	Frame Rate	Level A/B	Color Space	Sampling	Bit Depth	
1x 12Gb SDI	3840x2160p	23.98, 24, 25, 29.97, 30	N/A	YCbCr/RGB	4:4:4	10, 12	
		50, 59.94, 60	N/A	YCbCr	4:2:2	10	
	4096x2160p	23.98, 24, 25, 29.97, 30	N/A	YCbCr/RGB	4:4:4	10, 12	
		50, 59.94, 60	N/A	YCbCr	4:2:2	10	
1x 6Gb SDI	3840x2160p	23.98, 24, 25, 29.97, 30	N/A	YCbCr	4:2:2	10	
		50, 59.94, 60	N/A	YCbCr	4:2:2	10	
	4096x2160p	23.98, 24, 25, 29.97, 30	N/A	YCbCr	4:2:2	10	
4x 3Gb SDI	3840x2160p	23.98, 24, 25, 29.97, 30	A or B-DL	YCbCr/RGB	4:4:4	10, 12	
		50, 59.94, 60	A or B-DL	YCbCr	4:2:2	10	
	4096x2160p	23.98, 24, 25, 29.97, 30	A or B-DL	YCbCr/RGB	4:4:4	10, 12	
		50, 59.94, 60	A or B-DL	YCbCr	4:2:2	10	
4x 1.5Gb SDI	3840x2160p	23.98, 24, 25, 29.97, 30	N/A	YCbCr	4:2:2	10	
		50, 59.94, 60	N/A	YCbCr	4:2:2	10	
	4096x2160p	23.98, 24, 25, 29.97, 30	N/A	YCbCr	4:2:2	10	
1x 6Gb SDI	1920x1080p	50, 59.94, 60	N/A	YCbCr/RGB	4:4:4	10, 12	
		2048x1080p	50, 59.94, 60	N/A	YCbCr/RGB	4:4:4	10, 12
1x 3Gb SDI	1280x720p	50, 59.94, 60	A	YCbCr/RGB	4:4:4	10	
		50, 59.94, 60	A or B-DL	YCbCr/RGB	4:4:4	10	
	1920x1080p	23.98, 24, 25, 29.97, 30	A or B-DL	YCbCr/RGB	4:4:4	10, 12	
		50, 59.94, 60	A or B-DL	YCbCr	4:2:2	10	
	2048x1080p	23.98, 24, 25, 29.97, 30	A or B-DL	YCbCr/RGB	4:4:4	10, 12	
		50, 59.94, 60	A or B-DL	YCbCr	4:2:2	10	
1x 1.5Gb SDI	1280x720p	50, 59.94, 60	N/A	YCbCr	4:2:2	10	
		50, 59.94, 60	N/A	YCbCr	4:2:2	10	
	1920x1080p	23.98, 24, 25, 29.97, 30	N/A	YCbCr	4:2:2	10	
		50, 59.94, 60	N/A	YCbCr	4:2:2	10	
	2048x1080p	23.98, 24, 25, 29.97, 30	N/A	YCbCr	4:2:2	10	
1x 270Mb SDI	625i	50	N/A	YCbCr	4:2:2	10	
	525i	59.94	N/A	YCbCr	4:2:2	10	

- 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 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)

## Supported Conversions and Functions

- 4x 12G-SDI BNC, SMPTE 259/292/424/2081/2082
- 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



## Weight

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- 0.6 lb (0.3 kg)

## Power

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- 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.