

OCEAN MATRIX®

USER MANUAL OMX-SDI2SDI

Up Down Cross Converter with Scaling and Genlock



Ocean Matrix

812 Kings Highway • Saugerties, NY 12477

www.oceanmatrix.com

OMX-SDI2SDI

Up Down Cross Converter with Scaling and Genlock

The Ocean Matrix OMX-SDI2SDI Up/Down Cross Converter allows you to manage video output for multiple displays by matching native resolutions through up/down scaling of SD/HD and 3G-SDI signals with external dipswitch settings. Frame synchronization genlocks the video output of one source to another input source for live productions.

Includes: US 2-Prong 12VDC/1A Power Adapter

Specifications	
SDI Format	SD-SDI, HD-SDI and 3G-SDI
SDI Supported Formats	<ul style="list-style-type: none">• 1080p60/50, 1080i60/50, 1080p30/25/24, 720p60/50• 1080p59.94, 1080i59.94, 720p59.94, 1080p29.97, 1080p23.98• 525i & 625i SD D1 Format• RGB/YUV 4:4:4 Sampled
SDI Transition Rate	70Gb/s, 1.485Gb/s and 270Mb/s
Input	1-SDI (BNC), 1-REF (BNC) Black Burst, Tri-Level Sync
Output	2-Up/Down Converted SDI, 1-SDI Loop Through
Genlock Frame Lock Mode	Free-run, External Sync Input
Auto Detection	3G/HD/SD-SDI
Frame Rate Conversion	1.000/1.001
Cable Equalization	<ul style="list-style-type: none">• 3G: 100m of RG6/86m of RG59• HD: 170m of RG6/120m of RG59• SD: 400m of RG6/280m of RG59
Audio Support	Up to 8 channels, 24bit, 48KHz
Input Power	7.5-15VDC
Dimensions (LxWxH)	6.15x2.5x1in/ 156x63.5x25.4mm
Weight	1 lb / 0.45 kg

OMX-SDI2SDI

Installation

1. Connect the video source to the input connector
2. Connect display equipment to the output connector
3. Connect power supply



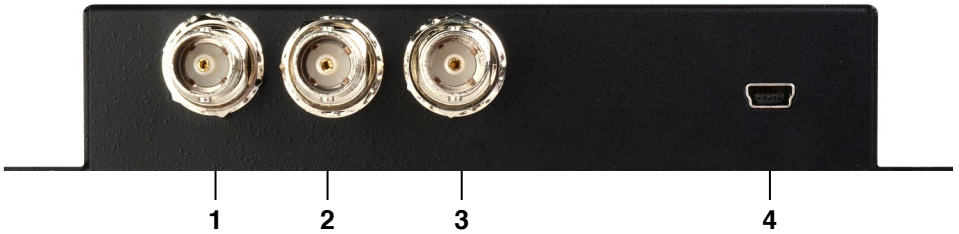
OMX-SDI2SDI Features

Front Panel



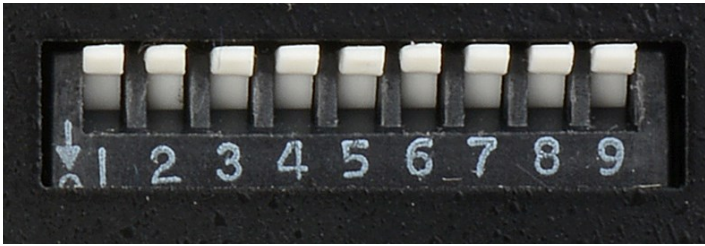
1	SDI Output to Display, CH1 & CH2
2	Dipswitch, 1-9
3	LED Indicators <ul style="list-style-type: none"> • Control Mode: DIP (G), USB (B) • Genlock Mode: SDI (G), REF(B) • Lock Status • 3G • HD • SD
4	Power Input 7.5-15V

Rear Panel



















1	SDI Input
2	SDI Looping Output
3	Reference Input (Genlock)
4	USB Port—Factory Use Only

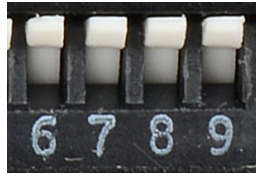
OMX-SDI2SDI Dipswitch



1	Control Mode
2, 3	Genlock Mode
4, 5	Aspect Ratio
6, 7, 8, 9	Output Format

1 Control Mode	Dipswitch Setting
Dipswitch	
USB	
2 Genlock Mode	
Free	 
SDI	 
Ref	 
3 Aspect Ratio	
Full Screen	 
16:9	 
4:3	 
Pixel to Pixel	 

OMX-SDI2SDI Output Format



Resolution	Dipswitch Setting
1920x1080p60	↑↑↑↑
1920x1080p59	↑↑↑↓
1920x1080p50	↑↑↓↑
1920x1080p30	↑↑↓↓
1920x1080p29	↑↓↑↑
1920x1080p25	↑↓↑↓
1920x1080p24	↑↓↓↑
1920x1080p23	↑↓↓↓
1920x1080i60	↓↑↑↑
1920x1080i59	↓↑↑↓
1920x1080i50	↓↑↓↑
1280x720p60	↓↑↓↓
1280x720p59	↓↓↑↑
1280x720p50	↓↓↑↓
720x480i59	↓↓↓↑
720x576i50	↓↓↓↓

OMX-SDI2SDI GENLOCK MODE

- Genlock
- Frame Lock

	480i59	576i50	720p60	720p59	720p50	1080i60	1080i59	1080i50	1080p60	1080p59	1080p50
480i59	● ●			●			●			●	
576i50		●			●			●			●
720p60			●								
720p59				●							
720p50					●						
1080i60			●			● ●			●		
1080i59	●			●			● ●			●	
1080i50					●			● ●			●
1080p60			●			●			● ●		
1080p59	●			●			●			● ●	
1080p50					●			●			● ●



SAFETY PRECAUTIONS



1. To prevent fire or shock hazard, do not expose this equipment to high humidity and/or dust. Do not use in an unprotected outdoor installation nor any area classified as overly damp or wet.
2. The temperature for installation should be kept between 32°F to 140°F (0°C to 60°C). Avoid direct sunlight exposure or extreme changes of temperature over a short period of time.
3. Do not disassemble the unit or place it on an unstable base.
4. Do not drop the unit and avoid heavy impact.
5. This unit should not be permanently installed unless proper ventilation is provided. Any enclosure openings must not be blocked or covered as they protect the unit from overheating.
6. Before cleaning, turn off the power and unplug the unit from all connections. Use a damp cloth. Do not use liquid cleaners nor aerosol cleaners.
7. Do not overload outlets and extension cords as this may result in a risk of fire or electric shock.
8. Enclosure entry is dangerous. Never push objects of any kind, including liquids, into this unit through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.
9. Do not attempt to open or service this unit yourself as opening or removing covers may expose you to dangerous voltage and other hazards.
10. There are no user-serviceable parts inside the unit. If the unit requires service contact your authorized dealer, or an authorized repair service company.

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