

# 3G-SDI/HDMI BIDIRECTIONAL CONVERTER

The Ultimate All-In-One AV Multi-Tool

Featuring high-performance format conversion, fiber extension (up to 20km), professional test pattern generation, and multi-signal processing. All functions integrated in a compact, reliable device ideal for broadcast, live event, and professional AV workflows.



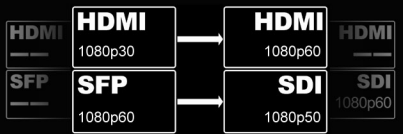
Model No.:

# SC2040

### Bidirectional 3G-SDI/HDMI Conversion



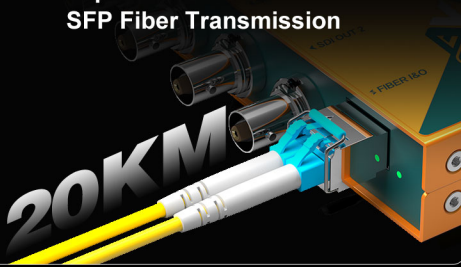
### Multiple Conversion Operation Modes



### Up/Down Scaling & Frame Rate Conversion



### Optional Bidirectional SFP Fiber Transmission



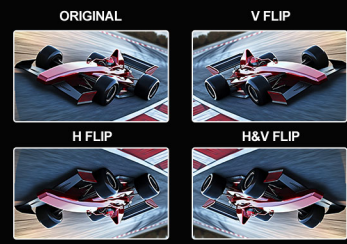
### Audio Embedding & De-embedding



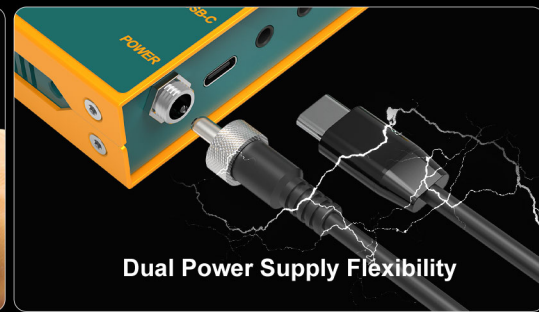
### Built-in Test Pattern/Audio Tone Generator



### Flexible Image Orientation Control

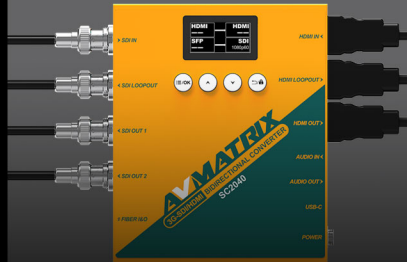


### Status Display & Intuitive Operation



## Video Converter

HDMI / SDI Signal Conversion



## SDI/HDMI Fiber Extender

Bidirectional SFP Module(Optional)



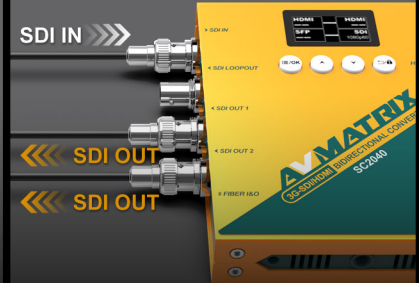
## Test Pattern Generator

Built-in Video & Audio Test Patterns



## SDI Splitter

SDI Splitter with dual SDI outputs



# Multi-Function Signal Solution

All-in-One: Converter, Splitter, Fiber Extender, Pattern Generator

This all-in-one device integrates powerful functions including video conversion, signal distribution, long-distance fiber extension, and test pattern generation in a single compact unit. It delivers versatile, end-to-end signal solutions to meet diverse requirements across professional AV, broadcast, and live production workflows.



# 3G-SDI / HDMI Bidirectional Conversion

Professional Scaling, Deinterlacing & Frame Rate Conversion

The all-in-one bidirectional converter for seamless 3G-SDI/HDMI signal conversion. It simultaneously processes HDMI, SDI, and SFP inputs while offering independent source selection for multiple outputs. With integrated up/down scaling and frame rate conversion, it guarantees universal format compatibility.



HDMI OUT		SDI 1&2 OUT+SFP OUT		HDMI OUT		SDI 1&2 OUT+SFP OUT		HDMI OUT		SDI 1&2 OUT+SFP OUT	
HDMI IN		HDMI IN		HDMI IN		SDI IN		HDMI IN		SFP IN	
SDI IN		HDMI IN		SDI IN		SDI IN		SFP IN		SFP IN	
SFP IN		HDMI IN		Scaled HDMI IN		SDI IN		Scaled HDMI IN		SFP IN	
Scaled HDMI IN		HDMI IN		Scaled SDI IN		SDI IN		Scaled SFP IN		SFP IN	
Scaled SDI IN		HDMI IN		HDMI IN		Scaled SDI IN		HDMI IN		Scaled SFP IN	
Scaled SFP IN		HDMI IN		SDI IN		Scaled SDI IN		SFP IN		Scaled SFP IN	
HDMI IN		Scaled HDMI IN		Scaled SDI IN		Scaled SDI IN		Scaled SFP IN		Scaled SFP IN	
SDI IN		Scaled HDMI IN									
SFP IN		Scaled HDMI IN									
Scaled HDMI IN		Scaled HDMI IN									

# Multiple Conversion Operation Modes

All-in-One Signal Hub, Up to 24 Flexible Conversion & Routing Configuration

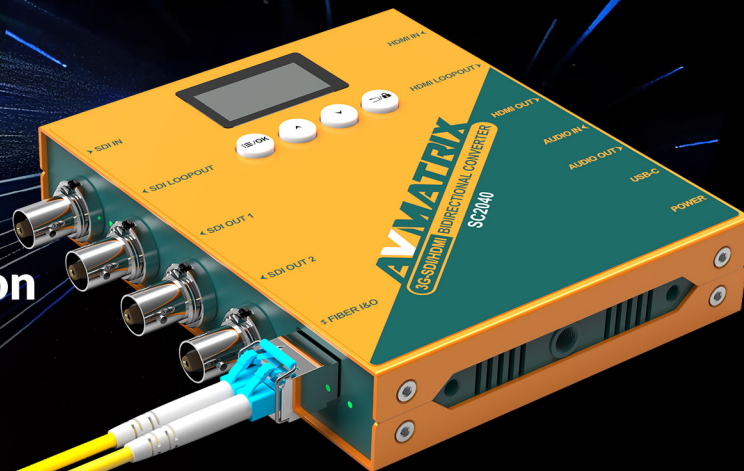
It provides seamless cross-conversion between HDMI and 3G-SDI, supporting 3G-SDI Level A & Level B formats. Supporting up to 24 flexible conversion modes, it enables versatile signal distribution, routing and format adaptation to comply with various professional display and broadcast standards.

# 20KM

## Long-Distance SDI/HDMI Fiber Transmission

Optional Bidirectional SFP Module Support

Extend SDI/HDMI signals up to 20km with optional bidirectional SFP modules, delivering uncompressed 3 Gbps video over 1310nm single-mode LC simplex fiber. Longer-distance modules available for extended transmission applications.





# Audio Embedding & De-embedding

## Analog Audio I/O for Professional AV Workflows

This converter supports embedding external analog audio via the 3.5mm input into SDI, HDMI, and SFP outputs for synchronized AV integration. It also de-embeds audio from SDI/HDMI signals to analog output, enabling seamless connection to monitoring, recording, and external audio equipment.



H Flip



V Flip



H&V Flip



Original

# Flexible Image Orientation Control

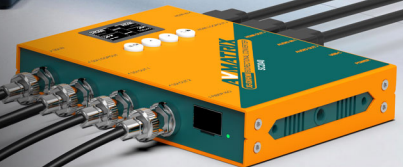
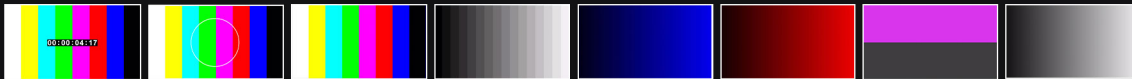
## Horizontal & Vertical Image Flipping

The converter features a built-in scaler that enables instant horizontal, vertical, and H&V image flipping, ensuring proper orientation for any display setup. It delivers enhanced flexibility for live production, monitoring, and on-site installations.

# Built-in Test Pattern/Audio Tone Generator

## 23 Professional Test Patterns & Audio Tones

This converter features an integrated Test Pattern Generator (TPG) with 23 test patterns, including brightness/chroma zone plates, color bars, pathological patterns, dynamic circles, and frame counters, enabling accurate display calibration and signal verification. It also provides left/right channel audio test tones, simplifying audio routing diagnosis and ensuring flawless system performance.





# Status Display & Intuitive Operation

## Front Panel & USB Remote Software Control

Equipped with front-panel buttons and an integrated display for easy on-site menu navigation and operation, the converter also supports USB remote control via dedicated software for convenient parameter adjustment and system management, delivering flexible control for all professional AV applications.

# Dual Power Supply Flexibility

## DC & USB-C Dual Power Input

This converter features dual power input with USB-C and DC, delivering flexible power options for professional AV workflows. The USB-C port also supports software control and firmware upgrades.





**Broadcast**



**Live Sports**



**Education**



**Church**



**Healthcare**

# Widespread Application

## Universal Industry Solution

This versatile converter is ideal for a wide range of professional scenarios, including broadcast, live sports, church, education, healthcare, and more.

# Specifications

## CONNECT

Video Input	HDMI ×1, 3G-SDI/ Fiber ×1 (Select 1 of 2)
Video Output	HDMI Loop ×1, HDMI ×1, SDI Loop ×1, SDI ×2, Fiber ×1
USB	USB Type-C×1(Upgrade, Power & Control)
Resolution Support	Up to 1080p60 (1080p, 1080i, 720p, 576p, 480p, NTSC, PAL)
Audio Input	3.5mm Audio ×1
Audio Output	3.5mm Audio ×1
SFP Module	Optional 3G Video SFP (MSA Type)
Power In	DC 12V ×1; USB-C 5V ×1
Wide Voltage Range	DC 9-24V
Power Consumption	7W
Dimension (LWD)	104×125.5×24.5mm
Weight	Net: 517g; Gross:826g
Temperature	Operating: -20~60℃; Storage: -30~70℃
Warranty	3 years

## Accessories



12V 2A Power Adapter



SFP Module (Optional)



Bracket (Optional)



USB A-C Cable (Optional)

