

# CAP-302MJ

USB 3.0 3G-SDI Capture Device with  
Audio in

## User Manual



rev: 180326  
Made in Taiwan



## Safety and Notice

The **CAP-302MJ USB 3.0 3G-SDI Capture Device with Audio in** has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the **CAP-302MJ** should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.
- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.



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# INTRODUCTION

The **CAP-302MJ USB 3.0 3G-SDI Capture Device with Audio in** provides a professional way to capture 3G/HD/SD-SDI signals. It adopts USB 3.0 interface, which can realize high-speed transmission. Users can capture 3G/HD/SD-SDI signals by this capture device. Besides, CAP-302MJ can capture and display original uncompressed 3G/HD/SD-SDI with more realistic color rendition. CAP-302MJ also uses large volume image buffer technology which effectively avoids the video tearing. The high sampling rate and high sampling accuracy assure images with high sharpness, rich details, and less color edges.

## FEATURES

- SDI video and audio streams over USB 3.0
- Supports UVC1.0
- Supports video resolution up to 1080p 60Hz
- Supports SDI loop through
- Supports stereo line in
- Auto-detection on video format to ensure plug-play operations
- Recording Video Format: H.264 (Software Compression)
- Works on multiple operation system platforms (Windows 7/8.1/10, Mac and Linux OS)
- Compatible with most 3<sup>rd</sup> party software such as OBS Studio and AMCap
- Supports USB 3.0 (MJPG/YUY2) and USB 2.0 (MJPG)
- Low Latency
- System Requirements (Recommended)
  - Windows® 7(SP1) / Windows 8.1 / Windows 10
  - PC: Intel® Core™ i5-4440 3.10GHz + NVIDIA® GeForce® GTX 660 or higher
  - Laptop: Intel® Core i7-4810MQ + NVIDIA GeForce GTX 870M or higher
  - 4GB RAM or higher



1. Video quality is apparently related to the capability of computer and software setting.
2. Please use the included USB 3.0 cable in the box to protect the device and avoid further compatible issues.

## PACKAGE CONTENTS

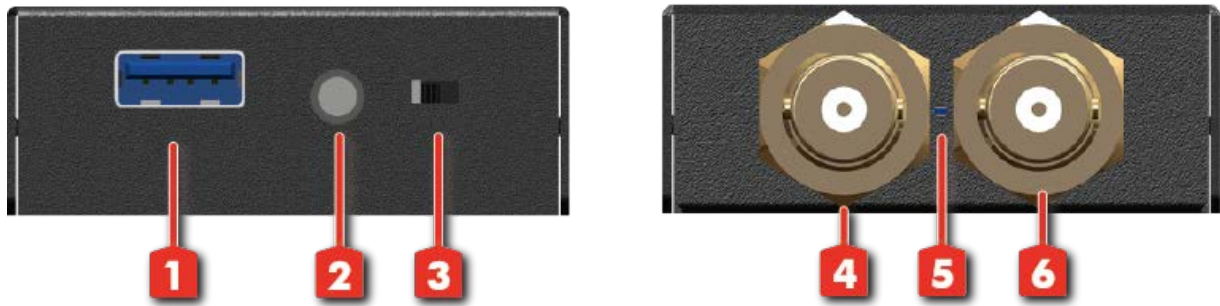
- 1x CAP-302MJ
- 1x USB 3.0 A to A Cable (host to device)
- 1x User Manual

# SPECIFICATIONS

Model Name	CAP-302MJ	
Technical		
Role of usage	Video Capture Device	
SDI standards	SD-SDI, HD-SDI & 3G-SDI	
Input Video bandwidth	2.970 Gbit/s, 2.970/1.001 Gbit/s	
Output Video bandwidth	Up to 350Mbps (USB 3.0)	
Video support	Up to 1080p60	
Audio Input	SDI Embedded Audio 3.5mm Analog Stereo Audio	
Audio Format	2CH 16bit PCM	
Recording Mode	Software Compression	
Recording Video Format	YUY2 (USB3.0), MJPG (USB2.0/3.0)	
ESD protection	Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]	
PCB stack-up	6-layer board [impedance control — differential 100Ω; single 50Ω]	
Firmware update	Feasible via USB Port	
Input	1x SDI + 1x 3.5mm stereo	
Output	1x USB + 1x SDI loop through	
BNC connector	3G 75Ω inter-locked socket	
USB connector	USB 3.0 Type A (SuperSpeed USB)	
Software compatibility (not complete list)	OBS Studio (Windows, Linux), AMCap (Windows), Potplayer (Windows), VLC (OS X, Linux), XSplit Boardcast (Windows), Skype (Windows, OS X), Zoom (Windows), Hangout (Windows), TeamViewer (Windows)	
OS Support	Windows 7 /8.1 /10, Mac and Linux OS	
Mechanical		
CAP-302MJ		
Housing	Metal enclosure	
Dimensions [L x D x H]	Model	102 x 57 x 21mm[4" x 2.2" x 0.8" ]
	Package	165 x 111 x 42mm [6.4" x 4.4" x 1.7"]
	Carton	490 x 426 x 352mm [1'6" x 1'4" x 13.8"]
Weight	Model	163g[5.7 oz]
	Package	354g[12 oz]
Fixedness	Wall-mounting case with screws	
Power supply	Via USB	
Power consumption	3 Watts [max]	
Operation temperature	0~40°C [32~104°F]	
Storage temperature	-20~60°C [-4~140°F]	
Relative humidity	20~90% RH [no condensation]	

# PANEL DESCRIPTION

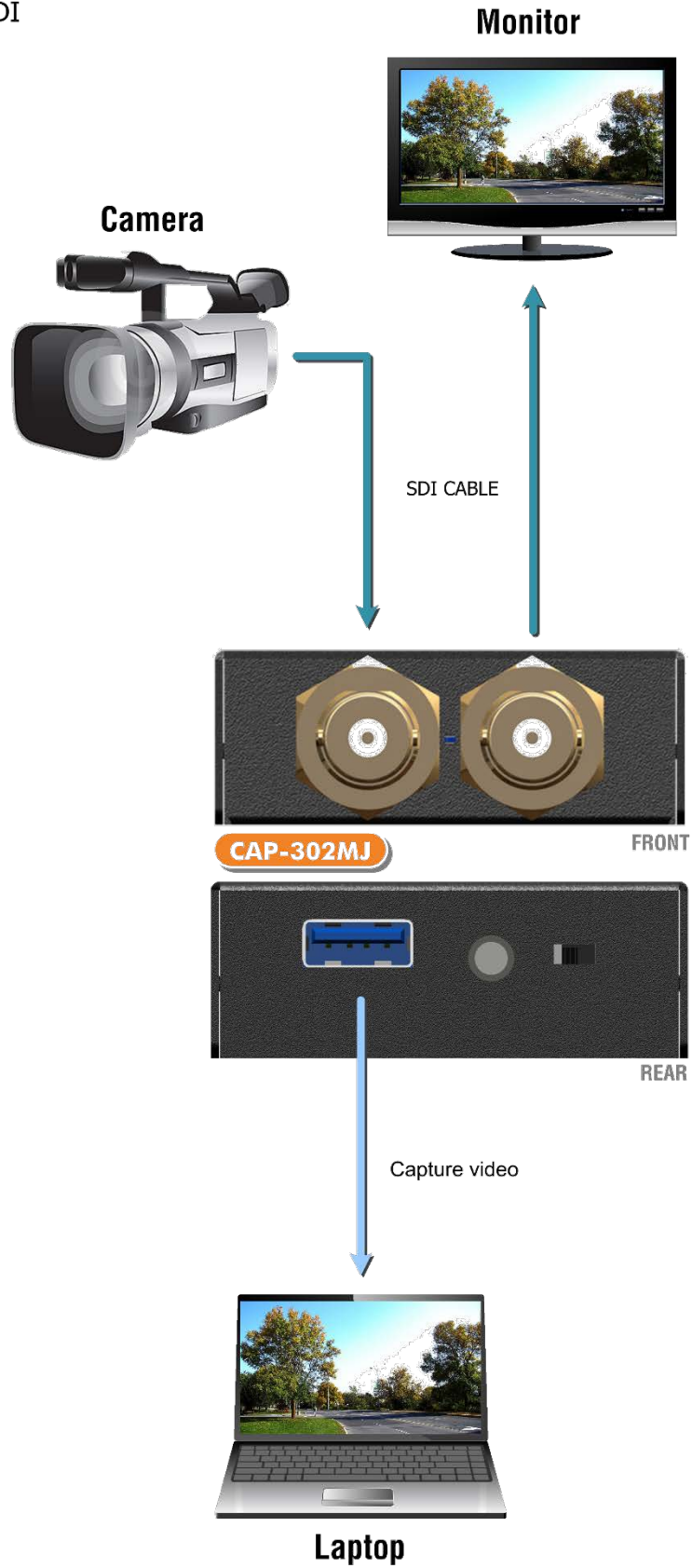
## Front/Rear Panel



- 1. USB OUT:** Connect to a USB host (PC, NB, MAC...)
- 2. Line IN:** Connect to analog stereo audio source
- 3. Slide Switch:** Select the audio source from SDI embedded audio or analog stereo audio  
[Left] Analog Stereo Audio  
[Right] SDI Embedded Audio
- 4. SDI IN:** Connect to a 3G/HD/SD-SDI source
- 5. LED:** Signal LED indicator
- 6. SDI LOOPOUT:** Connect to a 3G/HD/SD-SDI display

# CONNECTION DIAGRAM

→ USB  
→ SDI



# USB PIN DEFINITION



	P1		P2
VBUS	1	↔	1
D-	2	↔	2
D+	3	↔	3
GND	4	↔	4
SSRX-	5	↔	5
SSRX+	6	↔	6
GND	7	↔	7
SSTX-	8	↔	8
SSRX+	9	↔	9
Shield	SHELL	↔	SHELL

# LIMITED WARRANTY

The SELLER warrants the **CAP-302MJ USB 3.0 3G-SDI Capture Device with Audio in** to be free from defects in the material and workmanship for 1 year from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 1 year warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surges.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables are limited to a 30 day warranty and cable must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. **Also, the technical information contained herein regarding the CAP-302MJ features and specifications is subject to change without further notice.**