User Manual

Milestone PRO

MP-HD-GEN

Mini HDMI Signal Generator and Emulator

Version: MP-HD-GEN_2020V1.0

1. Product Introduction

The MP-HD-GEN is a portable mini HDMI signal generator and display emulator (signal analyzer), two functions combine into a compact size chassis. This is very useful for AV installers or testers; When work as signal generator, it can generate 4 signals, max resolution up to 4K@60Hz, 4:4:4, also can analyze the HDCP content, there is a 4 pin DIP switcher to control this; When work as a display emulator, it also can analyze the HDCP content and signal status (5V, TMDS). The LEDs will show the signal or HDCP status.

1.1 Features

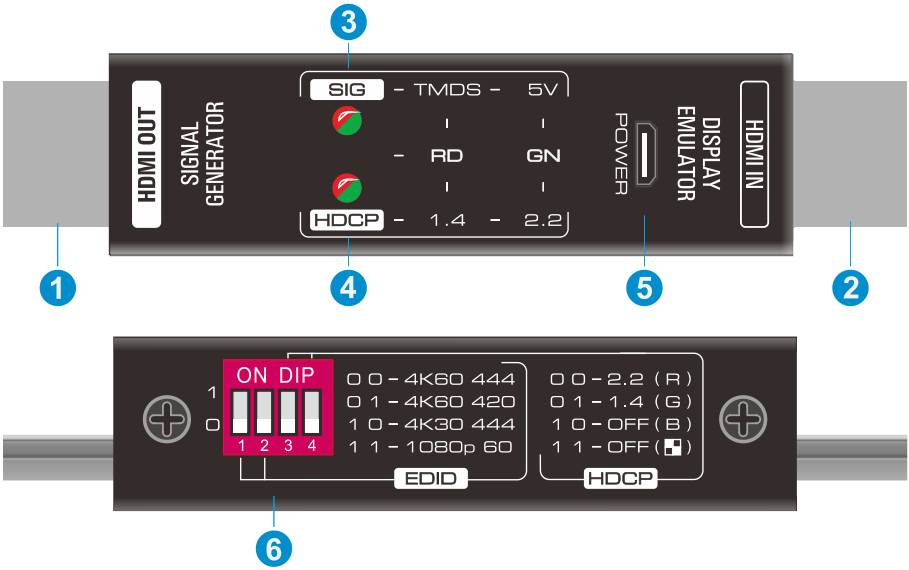
- Used as HDMI signal generator or display emulator (signal analyzer).
- Provides 4-pin DIP switch for setting video resolution and HDCP content.
- Supports 4K@60Hz 4:4:4, 4K@60Hz 4:2:0, 4K@30Hz 4:4:4, or 1080p@60Hz video signal output.
- Supports HDCP OFF, HDCP 1.4 or HDCP 2.2 output.
- Supports four different test patterns for HDCP version.
- LEDs show signal and HDCP status.

1.2 Package List

- 1x MP-HD-GEN Mini HDMI Signal Generator
- 1x USB Power Cord
- 1x Brown Cloth Bag
- 1x User Manual

Note: *Please contact your distributor immediately if any damage or defect in the components is found.*

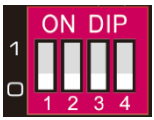
2. Product Description



1. **HDMI OUT:** Connects to HDMI display device. The MP-HD-GEN is used as a HDMI signal generator to output HDMI signal.
2. **HDMI IN:** Connects to HDMI source device. The MP-HD-GEN is used as a display emulator to detect the HDCP content and signal status (5V, TMDS) of HDMI source.
3. **SIG LED:**
   - When the MP-HD-GEN is used as a HDMI signal generator, the LED turns red when there is HDMI signal output.
   - When the MP-HD-GEN is used as a display emulator, the LED turns green when only 5V signal is detected, or turns red when 5V and TMDS signals are detected simultaneously, or off when no HDMI signal input.
4. **HDCP LED:**
   - When the MP-HD-GEN is used as a HDMI signal generator, the HDCP content can be selected by 4-pin DIP switch. The LED turns green when HDCP 2.2 is selected, or red when HDCP 1.4 is selected, off when no HDCP.
   - When the MP-HD-GEN is used as a display emulator, The LED turns green when the HDCP content of HDMI source is HDCP 2.2, or red when it is HDCP 1.4, or off when no HDCP.
5. **POWER:** Micro USB port for power cord connection. The MP-HD-GEN must be powered on when it is used as a signal generator. When the MP-HD-GEN is used as

a display emulator, it can be powered by HDMI source, so the power cord connection is no required, if the HDMI source has no enough power, both of the SIG LED and HDCP LED will blink.

6. **DIP SWITCH:** When the MP-HD-GEN is used as a HDMI signal generator, switch 1 & 2 are used for built-in EDID (video & audio) selection, and switch 3 & 4 are used for HDCP content selection.



There are four switches (1~4). The switch represents “0” when in the lower position, and it represents “1” while putting the switch in the upper position.

Switch Status (1 & 2)	**EDID**	
00	4K@60Hz 4:4:4, 2CH PCM	
01	4K@60Hz 4:2:0, 2CH PCM	
10	4K@30Hz 4:4:4, 2CH PCM	
11	1080p@60Hz/3D, 2CH PCM	
Switch Status (3 & 4)	**HDCP**	**Test Pattern**
00	HDCP 2.2	Red Screen
01	HDCP 1.4	Green Screen
10	HDCP OFF	Blue Screen
11	HDCP OFF	AlternateWB

3. Specification

Connectors	
Input	(1) HDMI IN
Input Connector	(1) 19-pin type-A male HDMI
Output	(1) HDMI OUT
Output Connector	(1) 19-pin type-A male HDMI
Power Connector	(1) Micro-USB
Control	(1) 4-pin DIP switch
General	
Input Video Resolution	Up to 4K@60Hz 4:4:4 8bit
Output Video Resolution	Supports 4K@60Hz 4:4:4, 4K@60Hz 4:2:0, 4K@30Hz 4:4:4, and 1080p@60Hz to be selected.
HDMI Input Audio Format	Supports LPCM 7.1 audio, Dolby Atmos®, Dolby® TrueHD, Dolby Digital® Plus, DTS:X™, and DTS-HD® Master Audio™ pass-through.
HDMI Output Audio Format	PCM 2CH
HDMI Version	2.0
HDCP Content	2.2, 1.4
Power Supply	5VDC 1A (USB power cord)
Power Consumption	2W (Max)
Operation Temperature	-5 to +55℃ (+23° to +131°F)
Storage Temperature	-25 to +70℃ (-13° to +158°F)
Relative Humidity	10% to 90%, Non-condensing
Dimensions (W*H*D)	75mm x 22mm x 19mm
Net Weight	65g

4. Connection Diagram