

## Options

### Ultra-high definition/wide-color-gamut standard test images VT-7007

- 8K (7680x4320) and 4K (3840x2160) with ITU-R BT.2020 compliant (12-bit)
- 2K (1920x1080) with ITU-R BT.709 compliant (10-bit)
- 10 images are provided.



■ Copyright: Institute of Image Information & TV Engineers · Association of Radio Industries & Businesses  
 ■ Source: Institute of Image Information & TV Engineers  
 ■ It is necessary to obtain a permission from ITE before using VT-7007 in exhibitions, etc.  
<http://www.ite.or.jp/en/c/?p=guidline>

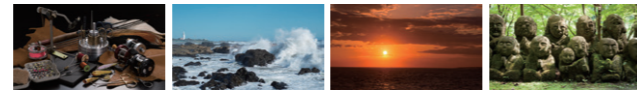
### SP-8871 Image convertor

SP-8871 will convert TIFF, BMP, VBM and JPEG file to VGD file which VG-876 can handle. By converting sequential image, motion picture play out is available. (Maximum one second by 4K/60p)



### Uncompressed 4K still picture library (VT-7004-A)

20 kinds of natural pictures of DCI (4096x2160) and QFHD (3860x2160) resolution with each 8, 10 and 12-bit.



### HDMI High-Bit-Rate Audio HDMI 2.0 COMPLIANCE TEST SUPPORTED

Able to output compressed Audio including High-Bit-Rate Audio

Audio Standard	DTS-HD Master Audio				DTS Express			
DTS-HD Master Audio					DTS Express(DTS-HD LBR)			
DTS-HD High Resolution Audio					DTS Digital Surround			
Dolby Digital Plus					Dolby TrueHD			
DSD (One Bit Audio)								

### Supporting Format

Audio Standard	DTS-HD Master Audio				DTS Express			
Sampling Frequency (kHz)	48				96			
ch	5.1	6.1	7.1	5.1	6.1	7.1	2.0	5.1

Audio Standard	DTS-HD High Resolution Audio				DTS Digital Surround			
Sampling Frequency (kHz)	48				96			
ch	2.0	5.1	6.1	7.1	5.1	6.1	7.1	5.1

Audio Standard	Dolby Digital Plus		Dolby TrueHD		DSD (One Bit Audio)	
Sampling Frequency (kHz)	48		96		44.1	
ch	2.0	5.1	7.1	7.1	5.1	7.1

### DVI/iTMDs to LVDS converter IA-1540

This option will convert VM-1876-M9 output (DVI/iTMDs) to LVDS. DVI single input to LVDS quad output.

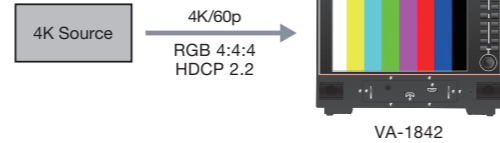
## HDMI Related Products

### HDMI 2.0/HDCP 2.2 Protocol Analyzer VA-1842

Support HDMI 2.0 CTS

Support HDCP 2.2 CTS

- HDMI 2.0a supported analyzer.
- HDCP 1.4 and 2.2 support.
- Possible to read downstream EDID.
- Able to output HDMI 600MHz signal as TX.



## General Specification

<b>Power Requirements</b>	AC100-240V (50/60Hz)	<b>Dimensions</b>	430(W)×177(H)×310(D)mm (Excluding Protrusions)
<b>Power Consumption</b>	200W MAX	<b>Weights</b>	Approx. 6.8kg (main unit)
<b>Operating Temperature Range</b>	5 to 40°C		
<b>Operating Humidity Range</b>	20 to 80%RH (No Condensation)		

■ The terms HDMI and **HDMI** High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC.  
 ■ V-by-One<sup>®</sup> HS Logo are trademarks of THine Electronics. ■ Dimensions, specifications etc. in this catalog may change without notice for improvement.

**ASTRODESIGN, Inc.**

URL <http://www.astrodesign.co.jp>

● For more information, please contact us :

TOKYO Headquarters  
 TEL +81-(0)3-5734-6320 FAX +81-(0)3-5734-6102  
 1-5-2 Minami-yukigaya, Ota-ku, Tokyo, Japan 145-0066

USA OFFICE  
 TEL +1-408-435-7800 FAX +1-408-435-7900  
 780 Montague Expressway, Suite 302, San Jose CA 95131 USA  
 URL <http://www.astro-americas.com>

VG876-1B4009E-3

# VG-876

## VIDEO SIGNAL GENERATOR

Support HDMI 2.0 CTS



\* This image picture is used from VT-7007 Ultra-high definition/wide-color-gamut standard test images.

■ HDMI 2.0a, V-by-One<sup>®</sup> HS, 3G-SDI, DisplayPort 1.2a and Analog outputs selectable.

■ Maximum 8K/120p signal is supported.

■ Maximum 4 slot-type interface units.

■ HDMI 2.0a test features of 6G, YC<sub>B</sub>C<sub>R</sub> 4:2:0, HDCP 2.2 and 3D.

Simple operation by selecting pre-installed timings and patterns.  
User can customize and save user created timings and patterns.  
Select the latest digital interfaces as your needs arise.

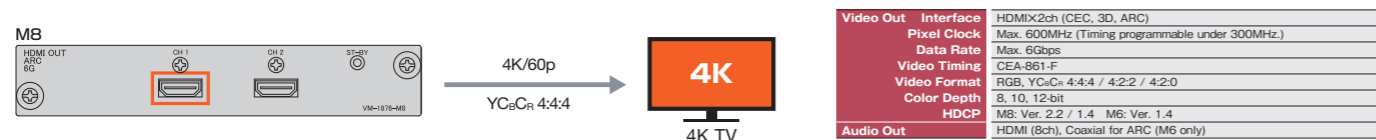


### Interfaces

Customizable to four interface units at once. Plug and Play module swapping

#### HDMI 6G unit (VM-1876-M8 Support HDCP 2.2 / VM-1876A-M6) HDR Support

HDMI 2.0a based modules. 4K/60p YCbCr 4:4:4 output is available. M8 supports HDCP 2.2 and 1.4 (Selectable). M6 support HDCP 1.4 only.



#### HDMI unit (VM-1876-M7 Support HDCP 2.2 / VM-1876A-M0) HDR Support

HDMI 2.0a based modules. 4K/60p YCbCr 4:2:0 output is available. M7 supports HDCP 2.2 and 1.4 (Follow sink capability). M0 support HDCP 1.4 only.



### Functions

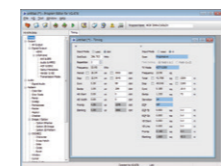
#### HDMI 2.0 Test tool Option

By using PC software, HDMI 2.0 CTS sink test is available.



#### Application Software (SP-8870)

Timing and pattern edit, program execute, make user's own 3D data by BMP pictures.



#### Synchronizing Unit (VM-1876-MX) Option

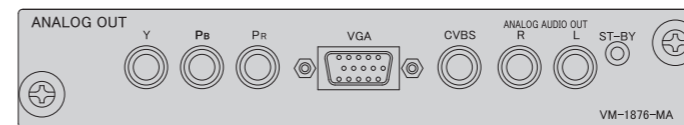
8K/120p timing is output by synchronizing four units of VG-876. Each VG-876 unit should be installed one video interface and Synchronizing Unit.



### Interfaces

#### Analog Unit (VM-1876-MA)

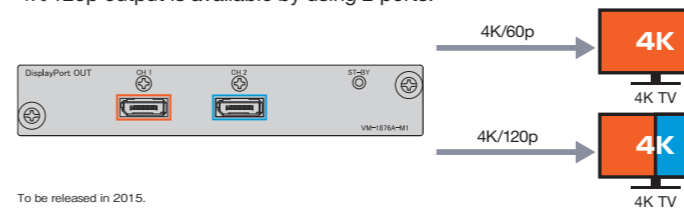
VGA, COMPOSITE, COMPONENT and Analog Audio output is available. Supporting NTSC/PAL (COMPOSITE only) output.



Video Out	Interface	Component, Composite, VGA
Color	RGB / YPbPr	
Colors (MAX)	RGB each 8-bit	
Dot Clock	5 to 165MHz	
HDTV	1080p / 1080i / 720p	
SDTV	NTSC / PAL	
PC	Programmable / Internal Timing	
Functions	Teletext, Closed Caption, V-chip, Macrovision (Option)	
Audio Out	Interface	RCAx2ch
Channel	2ch L / R	
Frequency	48kHz (Fix)	
Output Level	0 to 400mV	

#### DisplayPort Unit (VM-1876A-M1)

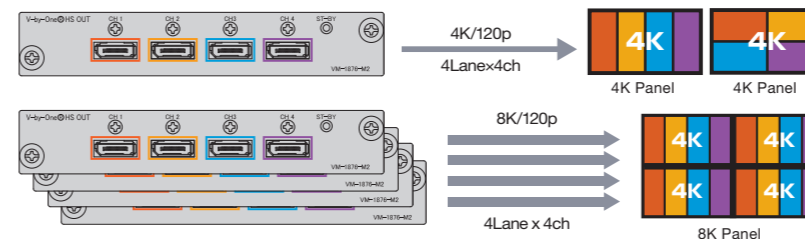
DisplayPort Ver.1.2a based. 4K/60p is transmitted by single channel. SST (Single Stream Transport) and MST (Multi Stream Transport) are supported. 4K/120p output is available by using 2 ports.



To be released in 2015.

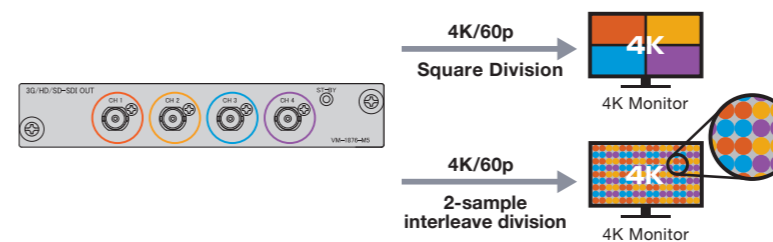
#### V-by-One® HS Unit (VM-1876-M2)

4K/120p and 8K/30p are transmitted by one unit. 8K/120p (4 pcs of 4K/120p) is transmitted by 4 slot units in one VG-876. This unit require accessories such as custom cable, please contact your local agent for detail.



#### SDI Unit (VM-1876-M5)

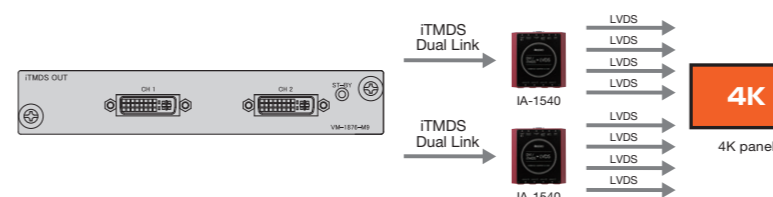
3G-SDI, HD-SDI and SD-SDI supported. 4K is transmitted by Square Division or 2-sample interleave division.



Video Out	Interface	BNCx4ch
Video Format	SD-SDI	SMPTE 259M-C
	HD-SDI	SMPTE 274M, 296M, 372M, 428-1M
	3G-SDI	SMPTE 425M, 428-1M
Audio Out		48kHz sampling (Max. 8ch embedded)
Payload		SMPTE 352M (or 4 bytes code setting)
Time Code		RP 188 (free-run time code)

#### iTMDS Unit (VM-1876-M9)

Able to support 4K/60p by one unit, 4K/120p (Cross split, Vertical 4-Split) by 2 units. By using IA-1540, LVDS output will be available.



Video Out	Interface	DVI-I (Digital output only)
Dot Clock	Dual Linkx2	DVI Mode
		8-bit 25~165MHz : Single Link
		50~330MHz : Dual Link
		iTMDS Mode
		8 to 10-bit 25~165MHz : Single Link
		50~330MHz : Dual Link
		12-bit 25~150MHz : Single Link
		50~330MHz : Dual Link
		Multi ch Mode
		10 to 16-bit 25~165MHz : Dual Link
		50~330MHz : Quad Link
		8 to 12-bit 297~660MHz : Quad Link
Timing Setting		4Kx2K Mode (Full HD 240MHz mode)
Video Format		limitation Cross split: setting unit 4 dot, 2 line
E-EDID		Vertical 4-Split: setting unit 8 dot, 1 line
		RGB / YCbCr: 4:4:4
		Ver.1.3(DDC2B)