

VG-849C

Programmable Video Signal Generator



Specifications		
Data Programming	Remote Box RB-1848 or Software SP-8848	
Analog Outputs	Dot clock frequency(step)	5.00 to 300.000MHz (0.001MHz step)
	Scan Mode	Interlaced & Video / Interlace & Sync / Non-interlace
	Display Colors	16,770,000 colors (24-bit true colors)
	Video Format	RGB or YCbCr
	Video Level (Accuracy)	0.3 to 1.2V 75Ω (±3% or less)
	Sync on Green	Available
	Sync Level (Accuracy)	0.0 to 0.6V 75Ω (±3% or less)
	Setup Level	0.00 to 0.25V 75Ω
	Rise / Fall Time	1.5ns or less
	Separate Sync (Accuracy)	HS, VS, CS (2.0V or more)
	Horizontal Timing	
	Range	10 to 300KHz
	Total Pixels(Accuracy)	128 to 8192 dots (1 dot step)
	Vertical Timing	
Range	15.6 to 200Hz	
Total Lines (Accuracy)	4 to 8192 lines (1H step)	
Serration	Equalizing Pulse on/off, 0.5H/1H/XOR selectable	
DVI Outputs	DVI-I	
	Dot clock frequency(step)	25.000 to 165.000MHz (0.001MHz step) 50.000 to 300.000MHz (0.001MHz step)*1)
	DDC2B	Available(Read / Write / Compare / Edit)
	HDCP	Available(Ver.1.0)
	Video Format	TMDS/RGB, YCbCr 4:4:4)
HDMI outputs	Video	
	Clock Bandwidth	25.000 to 225.000MHz (Pixel Clock : up to 165.000MHz)
	Display Colors (Normal)	RGB each 24-bit / RGB each 36-bit (Multi-bit Deep Color Mode)
	Compliant	HDMI Ver.1.3a
	DDC2B	Available(Read / Write / Compare / Edit) EDID Ver.1.3a 512k Byte
	HDCP	Available(Ver.1.0 or Ver.1.1 with AV-MUTE ON/OFF function)
	Video Format	TMDS/RGB, 4:4:4, YCbCr 4:2:2 or xvYCC601/709)*1
	Audio	
	Channel	Max. 8 channels
	Bits per Sample	16, 20, 24-bit
Sample Rate	32, 44.1, 48, 88.2, 96, 176.4, 192KHz	
Waveform	Sinewave, Sweep	
Amplitude	0-7FFF (in case of 16-bit)	
Frequency Range	20Hz to 20KHz	
Frequency Resolution	20Hz Step	
External Audio Input	S/PDIF(TOSLINK(optical), COAX), Analog	
Special Control Mode	Mute, Frequency, Volume	
Analog Audio Outputs	L/R RCA connector	
	Frequency Range	0Hz to 20KHz
	Frequency Resolution	100Hz step
	Channel	2 channels (L/R)
	Output Level Range	0 to 200mV
TV Outputs	Output Mode	Composite, S-Video(S1,S2), YCbCr, RGB
	Output Format	NTSC 4.43, NTSC 3.58(M,J), PAL(B,D,G,H,I,K,N,M) SECAM Composite(BNC), S-Video(S1,S2 with format control function) SCART (with optional IA-575)
	Function	Vchip, Closed Caption, Teletext, Macrovision (optional)
	HDTV Signal Outputs	
	Format	YPbPr, D-terminal(D1 to D5 with format control)
Resolution	SMPTE / EIA / China / Australia 1080i / 720p / 480p	
Data Storage Device	Compact Flash (adapter included) / standard 128MB	
	Flash Memory(Read Only)	4500images + 450patterns
	Memory Card(R/W)	8500images + 850patterns + 100programs(group) with SP-8848 software, unlimited data storage
Software	Standard SP-8848 Windows Software	
	Function	Timing & Pattern(incl. bmp/peg, C language) Edit, EDID edit, Cursor, etc.
Control Interface	RS-232C or LAN(10/100BASE-TX) or REMOTE	
General specifications	Power Voltage	AC100 to 120V, AC200 to 240V (50/60Hz)
	Power Consumption	80W MAX
	Operating Temperature Range	+5 to 40°C
	Storage Temperature Range	-10 to 60°C
	Operating Humidity Range	30 to 80% (non-condensing)
	Dimensions	430(W) x 88(H) x 320(D)mm (excluding projections)
	Weight	Approx. 8.0Kg

*1 Available only for xvYCC special test pattern. This function is under development(as of March 2007), and firmware updates may be required. For details, please inquire to our sales support desk.

Options							
Remote BOX (with editing function)	Remote BOX	SCART BOX	DTV Card	Built-in pattern card for 8/10/12 bit image	Software for max.16bit 8ff to VBM(Vg format) converting	Built-in pattern card for China TV test pattern library	License
RB-1848	RB-614C	IA-575	VT-8000	VT-8001	SP-8010	VT-8500-0004	1) Macrovision function 2) Max.12-bit Multi-bit

Restrictions
 •Analog output and CS output Tr/TI differ from high definition TV BTA or SMPTE standards. •Analog output and CS output Tr/TI differ from NTSC standards. •Tri-level SYNC setting is in units of four dots. •VS signal is output based on vertical reference phase point. •The amplitude level of the synchronization output of the positive pole is linked with the synchronization output level of the negative pole. •Simultaneous output of color difference signal and RGB is not possible. •Output of NTSC/PAL/SECAM for VBS and S-terminal output is OFF except for specified timing. •The DVI signal setting is in units of one dot for single link 25 - 100MHz, and two dots for 100MHz - 165MHz. •In HDCP mode, DVI shall be output from either one of the HDMI connectors. (selectable)

Dimensions, specifications, etc. in this catalog may change without notice for improvement.

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VG849C-IB3204E-1000-1

VG-849C

Programmable Video Signal Generator

A programmable video signal generator that supports the latest HDMI standard, Ver1.3a (EIA/CEA-861D), and is optimal for next-generation FPD TV testing.



Programmable video signal generator
 VG-849C The TV system specialization type, newest model which equipped the programmable video signal generator HDMI output!

A programmable video signal generator that supports the latest HDMI standard, Ver1.3a (EIA/CEA-861D), and is optimal for next-generation FPD TV testing.

The VG-849C is a standalone type programmable video generator that supports every display measurement fields, such as inspection field for FPD TV sets which support digitalized broadcast and digitalized interface, and development field for highly advanced display devices and sophisticated PC monitors. VG-849C has key switches on its front panel for data editing and program executing. For digital output, the VG-849C supports DVI as well as HDMI (High Definition Multimedia Interface) Ver.1.3a (the latest version of HDMI). It can inspect the new features of HDMI 1.3a, such as Deep Color (up to RGB12bit), xvYCC, and Lipsync. For analog output, the VG-849C has a wide variety of output ports (BNC, Dsub15pins, D-terminal, DVI-I, S-terminal), and supports RGB signals, color difference signals, tri-level synchronization signals, and TV standard signals.



What manages all ability, HDMI output loading, TV system specialization type newest model VG-849C appearance!!

Features

Wideband dot clock

The dot clock supports a maximum of 300MHz analog output, a maximum of 300MHz digital DVI dual-link output (with optional modification), and a maximum of 225MHz digital HDMI output (maximum pixel clock is 165MHz), and can be finely set in units of 1KHz. High-definition displays at HD (1080/60p) and QXGA (2048x1536) or higher resolutions can also be supported.

Support for HDMI standard Ver.1.3a

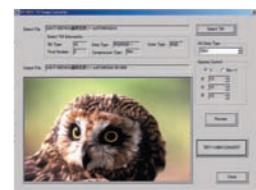
The VG-849C supports the latest standard (Ver. 1.3a) of the HDMI digital interface (EIA / CEA-861D), and the InfoFrame setting parameters are also standard-compliant. *Only linear PCM audio is supported. Uncompressed and lossless audio formats such as SACD and Dolby TrueHD are not supported.

Support for full color output (max. RGB 12-bit)

RGB/Y444 can switch between RGB 8-bit/10-bit/12-bit output. Can display up to RGB each 12-bit 4096-level linear ramp patterns, optimal for multi-level testing, through optional license input. By using the optional SP-8010 software, 10/12-bit tiff format natural images can also be Saved on the VG and output as a pattern.



Ramp pattern for comparing the graduation

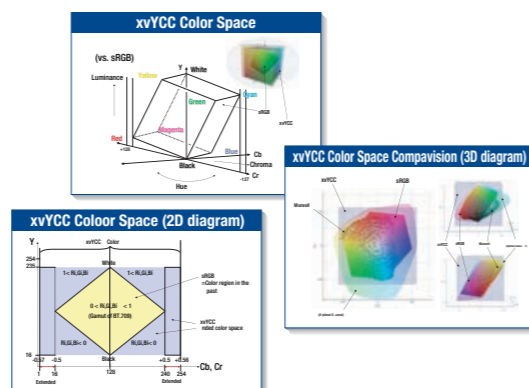


SP-8010 software image

xvYCC / Lipsync test function (under development)

The xvYCC (xvYCC709/xvYCC601) video standard, with a color gamut surpassing current HDTV, and a video and audio delay (Lipsync) test function are supported.

*These functions are under development (as of March 2007), and firmware updates may be required. For details, please inquire to our sales support desk.



Support for CEC function

Support for transmission and reception of CEC (Consumer Electronics Control) commands over the HDMI output, and simple display of the communication results on Sink (TV) equipment.



Wide variety of TV signal outputs and functions

In addition to digital signals such as HDMI and DVI, analog signals including RGB, YPbPr (YCbCr), S-Video, composite (NTSC/PAL/SECAM), D-terminal (D5), and SCART (optional IA-575 required) are also supported. General TV test functions such as Vchip, Teletext, and Closed Caption are also supported.



DDC/CI (DDC2Bi) / HDCP EDID OK/NG simple test function

Can DDC/CI (DDC2Bi) simple communication test function, HDCP (High-band Width Digital Content Protection) authentication test, and EDID checksum OK/NG pass-fail results as a pattern.

*The DDC/CI simple communication test function is under development (as of March 2007), and firmware updates may be required. For details, please inquire to our sales support desk.



HDCP test pattern

Natural image pattern

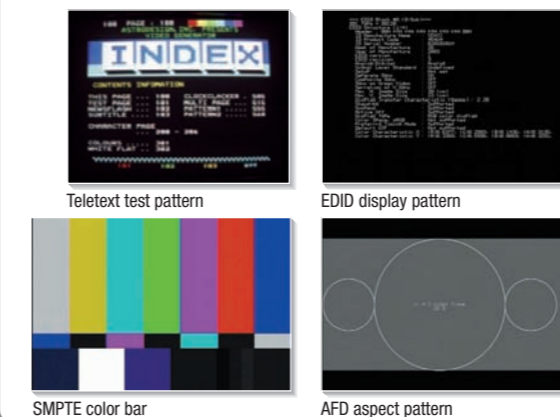
Natural image data in e.g. JPEG or BMP format can be Saved on the VG CF card, and output as a test pattern. Images can also be scrolled in units of 1 dot horizontally and vertically.



Natural picture image

Internal samples for a variety of video timings and patterns

The unit has roughly 450 types of sample data built in, including sample data for the latest HDTV systems (480, 720, 1080), SDTV systems (NTSC, PAL, SECAM), PC systems such as VESA, and CEA-861D.

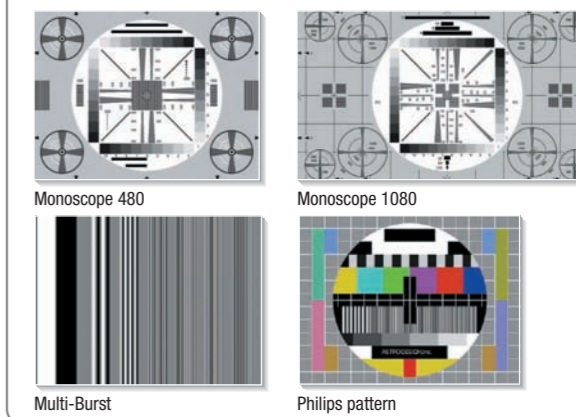


SMPTE color bar

AFD aspect pattern

VT-8000 DTV card (optional)

By using the optional VT-8000 DTV card, SD and HDTV resolution TV test patterns such as monoscope, ITE standard patterns (flower girl, etc.), and multiburst can be used.



Multi-Burst

Philips pattern