



quantumdata

VIDEO TEST GENERATORS

Mobile. Versatile. Affordable.

If you're testing digital or analog computer monitors, video projectors, multi-media monitors, or TVs, the 700 Series video test generators provide the signals, test patterns, and audio to do your job, easily and accurately.

Field technicians and factory people on the move will appreciate the convenience of battery power and small size. The 700 Series is designed to go where you go.



KEY FEATURES + BENEFITS

analog and digital video signals
Output VESA, NTSC, PAL, HDTV, DVI, and RF video signals.

custom formats
Create your own video formats.

compact size
The 700 series units are truly handhelds.

battery operation
Use rechargeable batteries or AC power.

HDCP
HDCP production keys available.

service center patterns
The patterns used by most service centers are built-in.

circles
Use circle patterns to test linearity.

learn monitor
Read the supported formats from the monitor, without guessing formats.

built-in audio
Test audio channels of video projectors and multimedia monitors.

video generator manager
MS Windows-based user interface for creating formats and test sequences.

custom test sequence
Define sequences of images and video formats for repetitive testing.

color sensor support
Connect QD's CS-1 color sensor and adjust white balance.

affordable
Low-cost and versatile test solution.

easy firmware updates
Install product updates yourself in the field.

intuitive user interface
Easy to navigate drill-down menus.

leverage existing formats
Use formats created for QD's 80x and 60x generators.

user calibration
Calibrate the 700 Series yourself to save time and money.

700

HDCP	
HDMI and DVI	Authentication and encryption of uncompressed HDMI and DVI signals

HDMI InfoFrames	
HDMI	Verify InfoFrames sent to display

HDMI Pixel Repetition	
HDMI	Test gaming formats with variable horizontal resolution

HDMI Active Format Descriptor (AFD)	
HDMI	Verify HDMI content mapping

HDMI Audio Tests	
Rate	Vary audio sampling rate to test sink handling
Frequency	Vary audio frequency to test sink handling
Amplitude	Vary audio amplitude to test sink handling

EDID Read	
HDMI, DVI, VGA	Auto-configuration of generator format list

Data channels	
Physical	I2C per VESA E-DDC
Protocols	DDC2B, E-DDC & DDC/CI (reads E-EDID Ver 1.3)

EDID Testing	
HDMI, DVI, VGA	Reads EDID from display and presents as displayed image

EDID Compliance Testing	
HDMI, DVI, VGA	HDMI EDID processing

DV Swing Test	
HDMI, DVI	Vary TMDS digital video signal swing in 4mV increments from 150 to 1560 mVp-p (programmable)

Scrolling Image Test	
All interfaces	Scroll any static image

Special Sync Tool	
Analog video	Trigger scope or inspection camera anywhere in video

Formats	
Format file types	XML
Standard formats	Over 200 formats for testing IT, CE, military and other display test applications
Custom formats	Graphical format editor

Patterns	
Pattern file types	Custom object (.o) files, BMP, JPEG, PNG
Standard patterns	Over 200 standard static and dynamic images included for testing CRTs and FPDs
Custom patterns	Graphics SDK to create complex patterns
Internal data storage	15 MB

Test Sequences	Create test sequences with unlimited number of steps; each step defines a video format, image, sync, gating and duration (0.1 sec to 24 hours, or frames)
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General Specifications	
Size (mm)	330 W, 87 H, 284 D
Humidity	30 to 80% RH (non-condensing)
Operating temp.	0 to 40° C
AC Mains	
Frequency	47 to 63 Hz
Voltage	90–264 VAC

Formate	
Storage	126 total
Built-in	VESA, DVI, NTSC/PAL, HDTV/SDTV- RGB, HDTV/SDTV-YPbPr
Edit method	MS Windows-based Video Generator Manager (VGM)
Compatibility	QD 801, 802, 60x formats

Images	
Standard	Flat_Wht, Flat_Red, Flat_Grn, Flat_Blu, Grid, Rev_Grid, Overscan (with circles), Raster (no video), Cutoff, Window, Focus, ColorBar, GrayBar, Regulate, Checker, Dot_12, SMPTEBar, Ramp, PluseBar, Burst
Gray levels	16
Colors displayed	16

Test SequenceVI	
Storage	100 steps
Edit method	VGM
Parameters	Format, image, duration (0.1 sec. to 24 hours)

Horizontal Timing	
Frequency	1.5 KHz - 250 KHz
Total pixels	32 to 4095
Active range	16 to 4094 pixels

Vertical Timing	
Frequency	1 Hz - 1 KHz
Active lines	1 - 4095
Sync types	Separate, digital/analog composite
Scan types	Progressive, interlace, HDTV

Video Outputs	
DTV	
SDTV, HDTV	RGB/YPbPr
Analog TV	
NTSC/PAL	Composite, S-Video, RGB
Computer	
VESA	RGB
DVI	Single link 75 MHz
RF	
Channels	2, 3, 4, and 6 (VHF) per NTSC (M) and PAL (G).
Video	Color per NTSC (M) and PAL (G)
Audio	Mono 1 KHz tone per NTSC (M) and PAL (G)
Connectors	
Analog TV	BNC, Mini DIN-4
HDTV/SDTV	DVI-I
Computer	DVI-I DVI to VGA adapter included
RF	Female F type

Audio Output	
Signals	Two channels
Frequency	1 KHz (left), 2 KHz (right) tone
Connector	Mini phone jack, stereo

User Interface	
Display	20 x 4 character LCD with backlight
Controls	Intuitive drill-down menus

Computer Port	
Type	RS-232C, 9 pin D-Sub receptacle
Purpose	Copy formats and firmware updates from PC

Color Sensor Support	
Description	Display data from a QD CS-1 color sensor for white balance adjustment.

DDC (Display Data Channel)	
Description	Read a monitor's EDID data and display the manufacturer's supported formats
Version	DDC-2B (read only)

Power	
DC	6 AA NiMh batteries included
Battery life	8 hours between charges with NiMh
AC	Charger/generator power supply
Charge time	8 hours
Frequency	50 to 60 Hz
Voltage	100- 250 VAC (auto-select)

Weight	
Unpacked	21 oz
Shipping	3.5 lb

Size	
Unpacked	6 x 8.25 x 2 in.

	VESA	HDTV	NTSC	RF	DVI	HDCP
700	✓	✓	✓			
701	✓	✓	✓	✓	✓	✓

Specifications are based on hardware and firmware revisions available as of March 2006, and are subject to change without notice. HDMI, the HDMI logo and High-Definition Multimedia interface are trademarks or registered trademarks of HDMI Licensing LLC.

Revised 03/02/06