



quantumdata

## VIDEO TEST GENERATORS

Mobile. Versatile. Affordable.

If you're testing digital or analog computer monitors, video projectors, multi-media monitors, broadcast displays or TVs, the 700A 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 700A Series is designed to go where you go.



## KEY FEATURES + BENEFITS

**analog and digital video signals**  
Output VESA, NTSC, PAL, HDTV, DVI, and SDI/HDSDI (701A) signals.

**custom formats**  
Create your own video formats.

**compact size**  
The 700A series units are truly handhelds.

**battery operation**  
Use rechargeable batteries or AC power.

**HDCP (optional)**  
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.

**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 882 generators.

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

# 700A/701A

**Formats**

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 Sequence**

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

**Horizontal Timing**

Frequency	1 KHz - 250 KHz
Total pixels	144 to 4096
Active range	16 to 4096 pixels

**Vertical Timing**

Frequency	1 Hz - 650 Hz
Active lines	1 - 4096
Sync types	Separate, digital/analog composite
Scan types	Progressive, interlace, HDTV

**Video Outputs****DVI**

Connector	DVI-I dual link
Links	Single link 25MHz-85MHz
Encoding	RGB (4:4:4 with 8-bits/component)
TMDS differential swing	150–1560 mVp-p (programmable)

**Analog Component**

Connector	DVI-I
Color encoding	RGB, YPbPr
Pixel rate	13.5–148.5 MHz

**Analog Composite**

Connectors	BNC, Mini DIN-4
Interface	CVBS (BNC) and S-Video
Encoding	NTSC and PAL
Sample rate	24.55–29.50 MHz
Pixel rate	12.27–14.75 MHz
Pixel aspect ratio	Standard or square
Swing	1000 mVp-p fixed w/programmable calibration
Calibration	Self-calibration with internal reference

**SDI / HD-SDI (Optional)**

Connector	BNC 75 ohm
Links	Single
Bit stream	1.485 Gb/s and 1.485/1.001 Gb/s
Encoding	4:2:2
Bits/component	10-bits/component
Sampling mode	YCbCr
Signal swing	800mV
Standards	SDI - SMPTE 259M; HD-SDI - SMPTE 292M-C

**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.
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**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 sup- ply
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.
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	VESA	Analog Component	NTSC	SD/HDMI	DVI	HDCP
700A	✓	✓	✓		✓	✓
701A	✓	✓	✓	✓	✓	✓

Specifications are based on hardware and firmware revisions available as of March 2014, and are subject to change without notice.

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