



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/HDSI (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. |
|-------------|--|

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. |
|----------|------------------|

| | VESA | Analog Component | NTSC | SD/HD/SDI | 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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Mouser Electronics

Authorized Distributor

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