

Gateway 42-inch Plasma TV Specifications

Specifications are subject to change without notice or obligation.

Display Panel

| | |
|------------------|--|
| Screen size | Diagonal 42-inch |
| Aspect ratio | 16:9 wide |
| Number of pixels | 852 (Horizontal, RGB Trio) × 480 (Vertical) pixels |
| Pixel Pitch | 1.08 mm × 1.08 mm |
| Luminance | 570cd/m ² , at APL13% |

Power Source

| | |
|-------------------------|-------------------------|
| Input voltage | 100 ~ 240 Vac, 50/60 Hz |
| Input current | 3.3 A |
| Inrush current | 60 A p-p/20 ms Max. |
| Power consumption | 280 ± 10% Watts typical |
| Stand-by and Power Save | 10 Watts Max. |

Connector Types

| |
|---|
| RCA jacks for audio, video, Y/C _B /C _R , and Y/P _B /P _R |
| 6 pin Din S-terminal for S-Video |
| 9 pin D-SUB for RS232 |
| 15 pin D-SUB for RGB |
| 24 pin DVI |

| Video/S-Video Signal | |
|--|--|
| Type | Analog |
| Polarity | Positive |
| Amplitude | Video 1Vp-p, (priority S-Video) Y=1Vp-p C=0.286Vp-p |
| Frequency | H: 15.734 KHz V: 60 Hz (NTSC) H: 15.625 KHz V: 50 Hz (PAL) |
| Input impedance | 75 ohms |
| Y/C_B/C_R or Y/P_B/P_R Signal (Component 1 and 2) | |
| Type | Analog |
| Polarity | Positive |
| Amplitude | AV: 1Vp-p (with sync) S-Video: Y: 1Vp-p,C: 0.286Vp-p |
| Frequency | |
| Y/CB/CR | H: 15.734 KHz V: 60 Hz (NTSC) |
| Y/PB/PR: HDTV | H: 15.625 KHz V: 50 Hz (PAL) H: 31 KHz V: 60 Hz (480P) H: 45 KHz V: 60 Hz (720P) H: 33 KHz V: 60 Hz (1080I) |
| RGB Signal | |
| Type | Analog |
| Polarity | Positive or Negative |
| Amplitude | RGB: 0.7 Vp-p |
| Frequency | H: support to 31 K~91 KHz V: support to 50~85 Hz |

DVI Signal

| | |
|-----------|---|
| Type | Digital |
| Polarity | Positive or Negative |
| Frequency | H: support to 31 K~63 KHz V: support to 50~85 Hz |

Audio Signal

Analog 500 mV rms /more than 22 Kohm

Pin Assignments for D-SUB Connector (In/Loop Out)

| Pin | Signal Assignment | Pin | Signal Assignment | Pin | Signal Assignment |
|-----|-------------------|-----|-------------------|-----|-------------------|
| 1 | RED | 6 | RED GND | 11 | GND |
| 2 | GREEN | 7 | GREEN GND | 12 | SDA |
| 3 | BLUE | 8 | BLUE GND | 13 | H-SYNC |
| 4 | GND | 9 | NC | 14 | V-SYNC |
| 5 | GND | 10 | GND | 15 | SCL |

Pin Assignments for 24 Pin DVI Connector (Digital Only)

| Pin | Signal Assignment | Pin | Signal Assignment | Pin | Signal Assignment |
|-----|----------------------|-----|----------------------|-----|----------------------|
| 1 | TMDS Data 2- | 9 | TMDS Data 1- | 17 | TMDS Data 0- |
| 2 | TMDS Data 2+ | 10 | TMDS Data 1+ | 18 | TMDS Data 0+ |
| 3 | TMDS Data 2/4 Shield | 11 | TMDS Data 1/3 Shield | 19 | TMDS Data 0/5 Shield |
| 4 | TMDS Data 4- | 12 | TMDS Data 3- | 20 | TMDS Data 5- |
| 5 | TMDS Data 4+ | 13 | TMDS Data 3+ | 21 | TMDS Data 5+ |
| 6 | DDC Clock | 14 | +5V Power | 22 | TMDS Clock Shield |
| 7 | DDC Data | 15 | Ground (For +5V) | 23 | TMDS Clock + |
| 8 | No Connect | 16 | Hot Plug Detect | 24 | TMDS Clock - |

| RGB/DVI For VESA Standard | | | | | | | |
|----------------------------------|---------------------|--------------------------|-----------------------------------|--------------------------------|------------------------------|------------------------------|-----------------------|
| Mode No. | Resolution | Refresh Rate (Hz) | Horizontal Frequency (KHz) | Vertical Frequency (Hz) | V-Sync Polarity (TTL) | H-Sync Polarity (TTL) | Dot Rate (MHz) |
| 1 | 640 (VGA) x 480 | 60 | 31.5 | 59.94 | - | - | 25.175 |
| 2 | 640 (VGA) x 480 | 72 | 37.9 | 72.81 | - | - | 31.500 |
| 3 | 640 (VGA) x 480 | 75 | 37.5 | 75 | - | - | 31.500 |
| 4 | 640 (VGA) x 480 | 85 | 43.3 | 85.01 | - | - | 36.000 |
| 5 | 800 (SVGA) x 600 | 56 | 35.1 | 56.25 | + | + | 36.000 |
| 6 | 800 (SVGA) x 600 | 60 | 37.9 | 60.317 | + | + | 40.000 |
| 7 | 800 (SVGA) x 600 | 72 | 48.1 | 72.19 | + | + | 50.000 |
| 8 | 800 (SVGA) x 600 | 75 | 46.9 | 75 | + | + | 49.500 |
| 9 | 800 (SVGA) x 600 | 85 | 53.7 | 85.06 | + | + | 56.250 |
| 10 | 1024 (XGA) x 768 | 60 | 48.4 | 60.01 | - | - | 65.000 |
| 11 | 1024 (XGA) x 768 | 70 | 56.5 | 70.07 | - | - | 75.000 |
| 12 | 1024 (XGA) x 768 | 75 | 60.0 | 75.03 | + | + | 78.750 |
| 13 | 1024 (XGA) x 768 | 85 | 68.7 | 84.99 | + | + | 94.500 |
| 14 | 1280 (SXGA) x 1024 | 60 | 63.98 | 60.02 | + | + | 108.00 |
| 15* | 1280 (SXGA) x 1024 | 75 | 79.98 | 75.03 | + | + | 135.00 |
| 16* | 1280 (SXGA) x 1024 | 85 | 91.15 | 85.02 | + | + | 157.50 |
| 18 | 720 (DOS) x 400 | 70 | 31.46 | 70.08 | + | - | 28.320 |
| 19 | 640 (VGA) x 480 | 50 | 31.5 | 50 | - | - | 25.175 |
| 20* | 1280 (HDTV) x 720P | 60 | 45.15 | 60 | - | - | 74.250 |
| 21* | 1920 (HDTV) x 1080I | 60(I) | 33.78 | 60 | - | - | 74.250 |
| 22 | 640 (VGA) x 350 | 70 | 31.50 | 70 | - | - | 25.175 |

* These modes are not supported in DVI mode.

RGB/DVI For Apple Standard

| Mode No. | Resolution | Refresh Rate (Hz) | Horizontal Frequency (KHz) | Vertical Frequency (Hz) | V-Sync Polarity (TTL) | H-Sync Polarity (TTL) | Dot Rate (MHz) |
|-----------------|-------------------|--------------------------|-----------------------------------|--------------------------------|------------------------------|------------------------------|-----------------------|
| 24 | 640 x 480 | 67 | 35.00 | 66.67 | - | - | 30.240 |
| 25 | 832 x 624 | 75 | 49.73 | 74.55 | - | - | 57.283 |
| 26 | 1152 x 870 | 75 | 68.68 | 75.06 | - | - | 100.000 |

Y/PB/PR For Component 1 and 2

| Mode | Resolution | Refresh Rate |
|-------------|-------------------|---------------------|
| 1 | 640 x 480P | 60 |
| 2 | 1920 x 1080I | 60 |
| 3 | 1280 x 720P | 60 |

Maximum Resolution

Up to 1280 x 1024

| Dimensions | Without/Stand | With/Stand |
|-------------------|----------------------|----------------------|
| Width | 40.94 in. (1040 mm) | 40.94 in. (1040 mm) |
| Height | 25.51 in. (648 mm) | 27.16 in. (690 mm) |
| Depth | 3.74 in. (95 mm) | 11.32 in. (287.5 mm) |

Package Dimensions

| | |
|--------|---------------------|
| Width | 48.42 in. (1230 mm) |
| Height | 37.79 in. (960 mm) |
| Depth | 18.50 in. (470 mm) |

Weight

| | |
|--------------|---|
| Net weight | 68.8 lbs/31.2 Kgs (without stand) 77.2 lbs/ 35 Kgs (with stand) |
| Gross weight | 101.4 lbs/46 Kgs |

Operating

| | |
|-------------------|-------------------|
| Temperature | 0~40°C (32~104°F) |
| Relative humidity | 20~80% |
| Pressure | 800~1114 hpa |

Non-Operating

| | |
|-------------------|--|
| Temperature | -20~60°C |
| Relative humidity | 20~90% |
| Pressure | 700~1114 hpa |
| Vibration | X/Y/Z, 0.5G/10~55 Hz (sweep), 10 minutes |

Acoustics

| | |
|--------------------------|------------|
| (IHF A-weighted 1 meter) | 40 dB Max. |
|--------------------------|------------|

Sound

| | |
|---|---|
| Residual hum (at volume max) | 500 μW Max. |
| Practical max. Audio output (at 10% THD max.) | 1.0 vp-p 1 KHz input 5 W + 5 W Max. /12 ohm |
| Sound distortion (at 250 mw 1 KHz) | 1% Max. |
| Audio output (input at 1.4V _{P-P}) | >=1.0 V _{P-P} |

Reliability Requirement

The MTBF is 20000 hours under operation at 25±5°C (Half luminosity, motion picture)

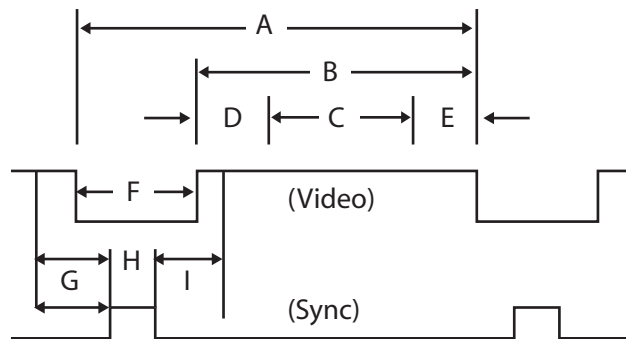
Emissions Requirement

Your plasma TV meets the EMI limits in all screen modes as qualified by FCC class B part 15.

Power Management

| Mode | H-sync | V-sync | Video | Power dissipation |
|--------------|----------|----------|----------|--------------------|
| Normal | Pulse | Pulse | Active | Normal power |
| Stand-by | No pulse | No pulse | No video | Less than 10 watts |
| Power saving | Pulse | No pulse | blanked | Less than 10 watts |
| | No pulse | Pulse | blanked | Less than 10 watts |

Preset Timing Chart



| Item | Description: |
|------|---------------------------------------|
| A | Total time |
| B | Active display area including borders |
| C | Active display area excluding borders |
| D | Left/Top border |
| E | Right/bottom border |
| F | Blanking time |
| G | Front porch |
| H | Sync-width |
| I | Back porch |

Gateway 42-inch Plasma TV Specifications

| Mode | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| H Resolution | 640 | 640 | 640 | 640 | 800 | 800 | 800 | 800 | 800 | |
| V Resolution | 480 | 480 | 480 | 480 | 600 | 600 | 600 | 600 | 600 | |
| Refresh Rate | 60 | 72 | 75 | 85 | 56 | 60 | 72 | 75 | 85 | Hz |
| Pixel | 25.175 | 31.5 | 31.5 | 36 | 36 | 40 | 50 | 49.5 | 56.25 | MHz |
| Horizontal visible | 640 | 640 | 640 | 640 | 800 | 800 | 800 | 800 | 800 | Dots |
| Horizontal total | 800 | 832 | 840 | 832 | 1024 | 1056 | 1040 | 1056 | 1048 | Dots |
| Horizontal front porch | 24 | 32 | 16 | 56 | 24 | 40 | 56 | 16 | 32 | Dots |
| Horizontal sync | 96 | 40 | 64 | 56 | 72 | 128 | 120 | 80 | 64 | Dots |
| Horizontal back porch | 48 | 128 | 120 | 80 | 128 | 88 | 64 | 160 | 152 | Dots |
| Horiz blanking time | 160 | 192 | 200 | 192 | 224 | 256 | 240 | 256 | 248 | Dots |
| Vertical visible | 480 | 480 | 480 | 480 | 600 | 600 | 600 | 600 | 600 | Lines |
| Vertical total | 525 | 520 | 500 | 509 | 625 | 628 | 666 | 625 | 631 | Lines |
| Vertical front porch | 18 | 17 | 1 | 1 | 1 | 1 | 37 | 1 | 1 | Lines |
| Vertical sync | 2 | 3 | 3 | 3 | 2 | 4 | 6 | 3 | 3 | Lines |
| Vertical back porch | 33 | 28 | 16 | 25 | 22 | 23 | 23 | 21 | 27 | Lines |
| Vertical blanking time | 45 | 40 | 20 | 29 | 25 | 28 | 66 | 25 | 31 | Lines |
| Horizontal frequency | 31.469 | 37.9 | 37.5 | 43.3 | 35.1 | 37.9 | 48.1 | 46.9 | 53.7 | KHz |
| Vertical frequency | 59.94 | 72.81 | 75 | 85.01 | 56.25 | 60.317 | 72.19 | 75 | 85.06 | Hz |
| Vertical sync polarity | - | - | - | - | + | + | + | + | + | TTL |
| Horiz sync polarity | - | - | - | - | + | + | + | + | + | TTL |
| Dot rate | 25.175 | 31.5 | 31.5 | 36 | 36 | 40 | 50 | 49.5 | 56.25 | MHz |

| Mode | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 18 | 19 | |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------|
| H Resolution | 1024 | 1024 | 1024 | 1024 | 1280 | 1280 | 1280 | 720 | 640 | |
| V Resolution | 768 | 768 | 768 | 768 | 1024 | 1024 | 1024 | 400 | 480 | |
| Refresh Rate | 60 | 70 | 75 | 85 | 60 | 75 | 85 | 70 | 50 | Hz |
| Pixel | 65 | 75 | 78.75 | 94.5 | 108 | 135 | 157.5 | 28.320 | 25.175 | MHz |
| Horizontal visible | 1024 | 1024 | 1024 | 1024 | 1280 | 1280 | 1280 | 720 | 640 | Dots |
| Horizontal total | 1344 | 1328 | 1312 | 1376 | 1688 | 1688 | 1728 | 900 | 800 | Dots |
| Horizontal front porch | 24 | 24 | 16 | 48 | 48 | 16 | 64 | 18 | 16 | Dots |
| Horizontal sync | 136 | 136 | 96 | 96 | 112 | 144 | 160 | 108 | 96 | Dots |
| Horizontal back porch | 160 | 144 | 176 | 208 | 248 | 248 | 224 | 54 | 48 | Dots |
| Horiz blanking time | 320 | 304 | 288 | 352 | 408 | 408 | 448 | 180 | 160 | Dots |
| Vertical visible | 768 | 768 | 768 | 768 | 1024 | 1024 | 1024 | 400 | 480 | Lines |
| Vertical total | 806 | 806 | 800 | 808 | 1066 | 1066 | 1072 | 449 | 629 | Lines |
| Vertical front porch | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 12 | 62 | Lines |
| Vertical sync | 6 | 6 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | Lines |
| Vertical back porch | 29 | 29 | 28 | 36 | 38 | 38 | 44 | 35 | 85 | Lines |
| Vertical blanking time | 38 | 38 | 32 | 40 | 42 | 42 | 48 | 49 | 149 | Lines |
| Horizontal frequency | 48.4 | 56.5 | 60 | 68.7 | 63.98 | 79.98 | 91.15 | 31.46 | 31.5 | KHz |
| Vertical frequency | 60.01 | 70.07 | 75.03 | 84.99 | 60.02 | 75.03 | 85.02 | 70.08 | 50 | Hz |
| Vertical sync polarity | - | - | + | + | + | + | + | + | - | TTL |
| Horiz sync polarity | - | - | + | + | + | + | + | - | - | TTL |
| Dot rate | 65 | 75 | 78.75 | 94.5 | 108 | 135 | 157.5 | 28.32 | 25.175 | MHz |

| Mode | 20 | 21 | 22 | 23 | 24 | 25 | 26 | |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------|
| H Resolution | 1280 | 1920 | 640 | 852 | 640 | 832 | 1152 | |
| V Resolution | 720P | 1080i | 350 | 480 | 480 | 624 | 870 | |
| Refresh Rate | 60 | 60i | 70 | 60 | 67 | 75 | 75 | Hz |
| Pixel | 74.250 | 74.25 | 25.175 | 30 | 30.240 | 57.283 | 100.000 | MHz |
| Horizontal visible | 1266 | 1901 | 640 | 852 | 640 | 832 | 1152 | Dots |
| Horizontal total | 1650 | 2201 | 800 | 955 | 864 | 1152 | 1456 | Dots |
| Horizontal front porch | 42 | 68 | 16 | 19 | 64 | 32 | 32 | Dots |
| Horizontal sync | 63 | 63 | 96 | 48 | 64 | 64 | 128 | Dots |
| Horizontal back porch | 279 | 169 | 48 | 36 | 96 | 224 | 144 | Dots |
| Horiz blanking time | 384 | 300 | 160 | 103 | 224 | 320 | 304 | Dots |
| Vertical visible | 687 | 518 | 350 | 480 | 480 | 624 | 870 | Lines |
| Vertical total | 750 | 562.5 | 449 | 525 | 525 | 667 | 915 | Lines |
| Vertical front porch | 1 | 0.5 | 37 | 10 | 3 | 1 | 3 | Lines |
| Vertical sync | 6 | 6 | 2 | 2 | 3 | 3 | 3 | Lines |
| Vertical back porch | 56 | 38 | 60 | 33 | 39 | 39 | 39 | Lines |
| Vertical blanking time | 63 | 44.5 | 99 | 45 | 45 | 43 | 45 | Lines |
| Horizontal frequency | 45.15 | 33.78 | 31.50 | 31.72 | 35.00 | 49.73 | 68.68 | KHz |
| Vertical frequency | 60 | 60 | 70 | 60.41 | 66.667 | 74.55 | 75.06 | Hz |
| Vertical sync polarity | - | - | - | - | - | - | - | TTL |
| Horiz sync polarity | - | - | - | - | - | - | - | TTL |
| Dot rate | 74.25 | 74.25 | 25.175 | 30 | 30.24 | 57.283 | 100.000 | MHz |

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MAN MON 42" PLASMA TV SPEC R0 4/03



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