## MSPG-3233MT

Video Signal Generator

## IMAGE



## DEFINITION

- Analog was a main item in display device industries at the past time, but from now on, the digital is getting developed with multi-function and large-sized resolution. Preparing for this change, this signal generator is an essential equipment of CRT, LCD, PDP, TV, D-TV display device industries, which was made for generating analog signal, digital signal, and TV signal, D-TV signal, HDCP Code simultaneously and sufficiently examining a large-sized display device.
- MSPG-3233MT is basically supporting the Teletext and Closed Caption as multi broadcast for the D-TV(NTSC, PAL), as well as V-Chip(Violence Chip) function to block the violence and sex etc. bad program to protect a person under age through the regulation grade.

## SPECIFICATION

|               |                   | //////////  |
|---------------|-------------------|---|
| H/V Frequency | Horizontal        | 10~300KHz / 1 Dot Resolution  |
|               | Vertical          | 10~300Hz / 1 Line Resolution  |
| Analog Output | Display Size      | 4096 X 4096   |
|               | Pixel Clock       | 8~330MHz  |
|               | Video Level       | R, G, B (Load 75 ohms, 0~1.0V Programmable)   |
|               | Output Connector  | 15P D-Sub, DVI-I  |
|               | EDID              | Read  |
|               | Separate Sync     | HS, VS (3.0V~5.5Vp-p Programmable / Inherited Sync Level/is 4/8Vp-p)                  |
| DVI (TMDS)    | Pixel Clock       | * Single Link: 25~165MHz / * Dual Link: 25~330MHz//////////////////////////////////// |
| Output        | Transfer Type     | * Single TMDS 24 Bit Input Mode / * Dual TMDS 12 Bit/Input/Mode                       |
|               | EDID              | Read  |
|               | HDCP              | Support Single & Dual   |
|               | Compliant         | DVI 1.0 Support   |
|               | Video Signal Type | RGB   |
|               | Output Connector  | DVI-I   |
|               | Data Bit          | 8~16 Bit  |
| D-TV Output   | Signal            | Y, Pb, Pr   |
|               | Connector         | BNC, D5   |
|               | Time              | 480i/p, 576i/p, 720p, 1080i/p for ATSC and DVB Format                                 |
|               | Note              | Support D Terminal for Japanese D-TV  |
|               |                   | (Adjustable to 16:9, 4:3 aspect ratio)  |
|               |                   |   |

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| CVBS Output     | Output Mode             | * NTSC M,J (3.58MHz)                                 |
|-----------------|-------------------------|--|
|                 |                         | * NTSC443 (4.4MHz)                                   |
|                 |                         | * PAL B,D,G,H,I (4.434MHz)                           |
|                 |                         | * SECAM (For=4.406MHz / For=4.25MHz)                 |
|                 | Subcarrier Stability    | 25ppm (±25Hz / 1MHz)                                 |
|                 | Video Output            | Composite(BNC), S-Video                              |
|                 |                         | * Signal : CVBS (Connector : BNC)                    |
|                 |                         | * Signal : Y/C (Connector : 4Pin-Mini Din)           |
|                 | Closed Caption (NTSC)   | C1, C2, C3, C4 / T1, T2, T3,T4                       |
|                 | V-Chip                  | * MPAA Rating : G, PG, PG-13, R, NC-17, X            |
|                 |                         | * FCC Rating: TV-Y, TV-Y7, TV-G, TV-PG, TV-14, TV-MA |
|                 | Teletext (PAL)          | Teletext System B Level 1, 1.5                       |
| HDMI (TMDS)     | Compliant               | HDMI 1.3 Version (CEC Support)                       |
| Video Output    | Pixel Rate Range        | 25~165MHz (TMDS Clock : 25~225MHz)                   |
|                 | Standard Spec           | EIA/CEA-861D   |
|                 | Video Signal Type       | RGB, YCbCr   |
|                 | Pixel Encoding          | RGB444, YCbCr444, YCbCr422                           |
|                 | Data bit of RGB & YCbCr | 8, 10, 12  |
|                 | Color Space             | RGB, BT-601, BT-709, xvYCC-601, xvYCC-709            |
|                 | HDCP                    | Support HDCP 1.1 Version                             |
|                 | EDID                    | Read   |
|                 | Output Connector        | Type A, HDMI 3 Port                                  |
|                 | Note                    | Support Deep Color & xvYCC                           |
| HDMI Audio      | Sample Rate             | 32 / 44.1 / 48 / 88.2 / 96 / 176.4 / 192KHz          |
|                 | Number of Channel       | 2 Channels   |
|                 | Bit per Sample          | 24   |
|                 | Waveform                | Sine Wave  |
|                 | Frequency Range         | 20Hz to 20KHz / 5Hz step                             |
|                 | Level Range             | 0mV to 2.0V / 100mV step                             |
|                 | External Audio Input    | S/PDIF, Optical                                      |
|                 | Special Control Mode    | Fix, Sweep, Swap, Optical, Mute                      |
| Audio (Analog)  | Frequency Range         | 20Hz to 20KHz / 5Hz step                             |
|                 | Level Range             | 0mV to 2.0V / 100mV step                             |
|                 | Waveform                | Sine Wave  |
|                 | Number of Channel       | 2 Channels   |
|                 | Connector               | RCA (////////////////////////////////////            |
|                 | Special Control Mode    | Fix, Sweep, Swap, Mute                               |
| Scart Output    | Signal Mode             | RF Input Mode, CVBS Mode, RGB Mode, Y/C Mode         |
|                 | Connector               | SCART 21Pin  |
| Scan & Function | Scan Storage            | 99 Group (1 Group ; 24 Step)                         |
| Group           | Function Storage        | 99 Group (1 Group ; 32 Step)                         |
| Data Storage    | Timing                  | 999 Timing (User:1~500, Default:501~999)             |
| Device          | Pattern                 | 999 Pattern (User:1~500, Default:501~999)            |
|                 | Compact Memory Card     | 512MB  |
|                 | 1                       |  |

## MSPG-3233MT

Video Signal Generator

| General       | Power Consumption    | AC 100~240VAC, 50/60Hz Auto Switch             |
|---------------|----------------------|--|
| Specification | Operating Conditions | * Temperature : 0~40°C                         |
|               |                      | * 80% Humidity, Non-condensing                 |
|               | Dimension(WXDXH)     | 440 X 355 X 145mm, Weight: 6Kg                 |
| Others        | Max Image            | 2048 X 2048 Bit Map Image Size                 |
|               | Moving               | 2 Dot, 2 Line Control                          |
|               | User Interface       | * Front Panel (6.4 inch / Graphic LCD) Key Pad |
|               |                      | * Possible to Timing Parameter Edit            |
|               |                      | * USB, RS-232C, PC EDIT Tool                   |

<sup>\*</sup> All specifications are subject to change without any notice.

## Remote Controller (Optional Product)

• You can use remote box in order to promote work efficiency, before operating remote box, first of all, check baud rate and protocol of communication.



• MSRC-005L

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