Multi

User's Manual

Multi-Format LCD Monitors
LVM Series

- LVM-071W

TVLogic

Contents

LVM-071W

TVLogic

Warning

· Always use set voltage.

  - DC 12V

· If liquid is spilled on or impacts this product, please disconnect

  the product immediately and seek professional help before continued use.

· Keep unit disconnected during extended periods of disuse.

· Keep unit in a well-ventilated place to prevent overheating.

· Do not install the product near any heat-generating equipment.

  Also, keep the product out of direct sunlight or dusty areas.

· Only clean the product with a noncommercial, mild and neutral detergent.

· When transporting the product, make use of its original packaging for safer carriage.

FCC (Federal Communications Commission)

This equipment has been tested and found to comply with the limits for class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interface when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential to correct the interference at his own expense

⚠ **Warning!!** : Change or modifications not expressly approved by the manufacturer responsible for compliance void the user's authority to operate the equipment.

Disposal of Old Electrical & Electronic Equipment

(Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packing indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequence for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources.

Features

Multi-Format LVM-071W Series unit has the following features:

Compatible with varied SDI signals
The product is compatible with varied SDI Signals
- 480i,576i,720p,1035i,1080i,1080p,1080psf

Compatible with varied analog signals
The product is compatible with varied analog signals
- Composite, S-Video, Component, RGB

Compatible with varied DVI Digital/Analog Signals
DVI input is standard equipment

Compatible with VGA Signals using DVI-I connection

Waveform/Vector Scope/Audio Level Meter
Waveform & Vector Scope available for SDI Signals
Embedded Audio Level Meter

Audio in & out
Built in Audio Disembedder and Internal Speakers
Stereo Audio out using phone jack
External Audio in for Mono Speaker out

Knob Control
Easy to adjust user configuration using the control knobs.

BLUE ONLY/MONO

H/V delay

Wide Variety of Markers & Safety Areas
Center Marker, Safety Area Marker, Aspect Marker, Display Size(Scan)

Pixel To Pixel
Provides both full screen and unscaled native image.

Wide Screen/LED Backlight

24Bit RGB Interface Panel

DC Compatible
The product is powered by normal 12V source.

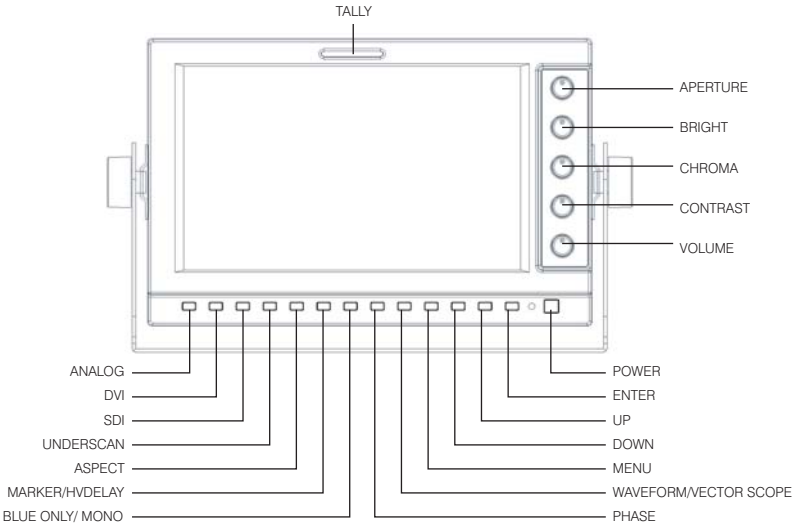
Remote control function
Simple remote controllability with single cable connection, no additional modules required

Additional Features
Active Loop Through/SDI, VESA Mounting Standard, 300:1 contrast ratio, 350 cd/m2 brightness, OSD user interface, Rack Mountable

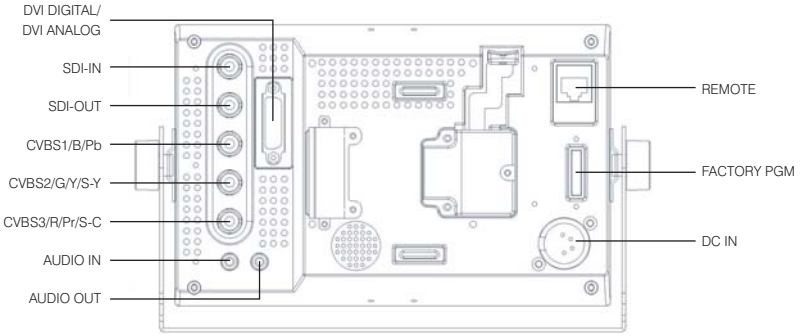
TVLogic

Name & Function of Each Part

<FRONT>



<REAR>



<FRONT>

· [ANALOG] button/lamp
Used to select desired Analog Input. (CVB1/2/3, S-Video, Component, RGB)

· [DVI] button/lamp
Used to select desired DVI Input. (DVI DIGITAL, DVI ANALOG)

· [SDI] button/lamp
Used to select SDI Input.

· [UNDERSCAN] button/lamp
Used to transfer from OVER SCAN mode to UNDER SCAN mode.
Mode changes in the order of UNDERSCAN -> OVERSCAN -> PIXEL TO PIXEL -> UNDERSCAN.
#PIXEL TO PIXEL mode is not available in Graphic mode.

· [ASPECT] button/lamp
Used to toggle aspect ratio in SD from standard to anamorphic.

· [MARKER]/[HVDELAY] button/lamp
Used to show MARKER on the screen. The type of marker at work may be selected on the main menu. Press and Hold the button to activate the HV Delay mode.

· [BLUE ONLY]/[MONO] button/lamp
You may remove R(red) and G(green) from the input signal and play the screen only with B(blue) signal. Button may be pressed twice to change the screen to MONO mode. (This mode uses only Luminance value.)

· [PHASE] button/lamp
Used to change the Phase values.
#Phase is not available in DVI Analog and PAL mode.

· [WAVEFORM]/[VECTOR SCOPE] button/lamp
Used to activate the Waveform or Vector Scope. Pressing the button once will activate the Waveform, pressing the button twice activates the Vector Scope.

· **[MENU] button**
Used to activate the OSD menu.

· **[UP] button**
Used to navigate menu during OSD menu activation. It may also be used to toggle clockwise through 1:1 quadrants in native scan mode.

· **[DOWN] button**
Used to navigate menu during OSD menu activation. It may also be used to toggle counterclockwise through 1:1 quadrants in native scan mode.

· **[ENTER] button**
Used to confirm a chosen value (or mode) within the OSD menu.

· **[POWER] switch**
Power On/Off button. If the signal is normal, LED lights in Green. If the signal is unsupported or disconnected, LED flashes in Yellow.

· **TALLY**
LED indicating monitor's current status using optional Remote/RS-485.

· **[APERTURE] knob**
Used to adjust the picture sharpness between MAX(12) and MIN(-12).
#Aperture is not available in DVI Analog mode.

· **[BRIGHT] knob**
Used to adjust the degree of brightness between MAX(25) and MIN(-25).

· **[CHROMA] knob**
Used to adjust the saturation between MAX(25) and MIN(-25).
#Chroma is not available in DVI Analog mode.

· **[CONTRAST] knob**
Used to adjust the contrast ration between MAX(25) and MIN(-25).

· **[VOLUME] knob**
Used to adjust the volume between MAX(20) and MIN(0).

<REAR>

· REMOTE (RJ-45)
Connection for remote control of monitor.

· DVI DIGITAL/DVI ANALOG (DVI-I)
Input connection for DVI-I.

· SDI-IN (BNC)
SDI signal input terminal.

· SDI-OUT (BNC)
SDI signal output terminal.

· CVBS1/B/Pb (BNC)
Signal input terminal used for COMPOSITE1, RGB B, COMPONENT Pb signals.

· CVBS2/G/Y/S-Y (BNC)
Signal input terminal used for COMPOSITE2, RGB G, COMPONENT Y, SVIDEO signals.

· CVBS3/R/Pr/S-C (BNC)
Signal input terminal used for COMPOSITE3, RGB R, COMPONENT Pr, SVIDEO C signals.

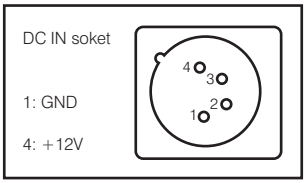
Connector	Composite	Component		S-Video
1	CVBS1	Pb	B	No Con.
2	CVBS2	Y	G	Y
3	CVBS3	Pr	R	C

· AUDIO IN (Phone jack)
Used to External audio input jack.

· AUDIO OUT (phone jack)
Used to audio output jack.

· FACTORY PGM (40 pins)
Input connector for FACTORY PGM allowing for firmware updates.

· DC IN (XLR, 4 pins)
Used to supply DC power; 12V.



TVLogic

Menu Contents

Below is the description of each function of the menu.

[1] PICTURE

· Brightness

This Item controls the degree of brightness.

#Brightness can be adjusted by using the [BRIGHT] control knob on the front of the monitor.

· Contrast

This item controls the contrast ratio.

#Contrast can be adjusted by using the [CONTRAST] control knob on the front of the monitor.

· Chroma

This item controls saturation.

#Saturation can be adjusted by using the [CHROMA] control knob on the front of the monitor.

· Phase

This item controls Phase value (Hue).

#Phase value can be adjusted by press the [PHASE] button on the front of the monitor.

· **Aperture**

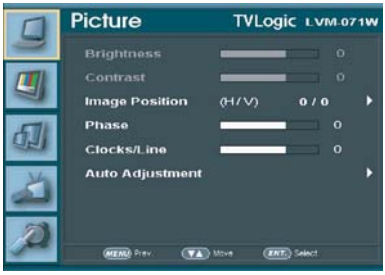
This item controls the picture sharpness.

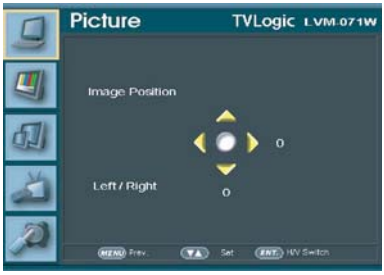
#Sharpness can be adjusted by using the [APERTURE] control knob on the front of the monitor.

· **NTSC Setup**

This item sets IRE value in NTSC mode between 0 IRE and 7.5 IRE.

[2] PICTURE (DVI Analog Only)





· **Brightness**

This Item controls the degree of brightness.

#Brightness can be adjusted by using the [BRIGHT] control knob on the front of the monitor.

· **Contrast**

This item controls the contrast ratio.

#Contrast can be adjusted by using the [CONTRAST] control knob on the front of the monitor.

· **Image Position**

This item controls the position(H/V) of the image in DVI Analog mode.

· **Phase**

This item controls Phase value.

· **Clocks/Line**

This item is adjust timing for signal sync

· **Auto Adjustment**

This item adjusts the input signal automatically. Phase, Clocks/Line and Image Position are also adjusted.

[3] Color

· **Color Temp**

This item controls Color Temperature with presets of 3200K, 5600K, 6500K, 9300K, and User1, User2, User3 mode.

· **User**

On User Mode, the user may select and control R, G, & B GAIN, BIAS values by using the [UP]/[DOWN]/[ENTER] buttons.

[4] Marker

· Marker

This selects the marker type when the MARKER is displayed on the screen.
Compatible MARKER types are as follows:

MODE	MARKER CLASS
HD SD 16:9	16:9, 4:3, 4:3 ON AIR, 15:9,14:9, 13:9, 1.85:1, 2.35:1, 1.85:1 & 4:3
SD 4:3	16:9

MARKER may only be activated by pressing the MARKER button on the front of the monitor.

· Center Marker

This item displays the CENTER MARKER on the screen.
#This function operates only after activating the MARKER function by pressing the MARKER button on the front of the monitor.

· Safety Area

This item controls the size of the SAFETY AREA between 80%, 88%, 90%, 93%, and 100%.

· Marker Mat

This item darkens the area outside of MARKER setting area. The degree of the matte is between OFF(0) and (7).
The higher the number the darker MARKER the matte becomes.

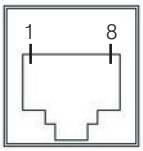
· **Marker Color**

This item controls Marker color. Selectable colors are white, gray, black, red, green, and blue.

[5] Remote

REMOTE (RJ-45)

1: Pin1
2: Pin2
3: Pin3
4: Pin4
5: Pin5
6: Pin6
7: Pin7
8: GND



· **Pin1 ~ Pin6**

The user may connect RJ-45 jack to the remote terminal on the rear of the unit and designate a function for each pin.

The selectable functions are as follows:

Menu Classification	Settable Values
PIN 1~6	ANALOG CHANNEL, DVI CHANNEL, DIGITAL CHANNEL TALLY RED, TALLY GREEN BLUE ONLY UNDERSCAN ASPECT HVDELAY 16:9 MARKER, 15:9 MARKER, 14:9 MARKER 13:9 MARKER, 4:3 MARKER, 4:3 ON AIR MARKER 1.85:1 MARKER, 2.35:1 MARKER, 1.85:1 & 4:3 MARKER CENTER MARKER SAFETY AREA 80%, SAFETY AREA 88%, SAFETY AREA 90% SAFETY AREA 93%, SAFETY AREA 100%

· **Pin7**

PIN7 is for POWER ON/OFF use only.

[6] System

· System Default

User can use the System Default menu to initialize the values of the monitor excluding controlled values with the knobs On the front of the monitor.

· Back Light

This item controls the LED backlight setting. The value should be within range between MIN(0) and MAX(25).

· Audio Volume

This item controls embedded audio volume between MIN(0) and MAX(20).

· Audio Channel

This item set embedded audio channel selects CH1 ~ CH16, Off, and Ext. Audio.

· Audio Level Meter

This item set embedded audio group selects Off, G1+G2, G2+G3, G3+G4, G1+G3, G1+G4, G2+G4 to activate Audio Level Meter.

· Internal Pattern

Displays internal test pattern.

· Firmware Version

This item is the firmware version of the system.

· Serial Number

Displays the serial number of monitor.

Other Functions

1) ANALOG INPUT Menu

· LVM-071W Series unit is capable of processing varied ANALOG Input signals.

· Press [ANALOG] button on the front of the monitor and activate the OSD menu as shown on the left.
Select the input you desire by using the [UP]/[DOWN] button and press the [ENTER] button to confirm.

#If no image displays after selecting the desired input mode, check and make sure that your connection is not lose or disconnected.

#Input resolution displays on the bottom of the OSD screen.

2) DVI INPUT Menu

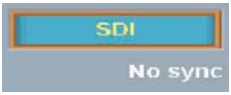
· LVM-071W Series unit is capable of processing DVI Digital/Analog input signal.

· Press [DVI] button on the front of the monitor and activate the OSD menu as shown on the left.
Select the input you desire by using the [UP]/[DOWN] Button and press the [ENTER] button to confirm.

#If no image displays after selecting the desired input mode, check and make sure that your connection is not lose or disconnected.

#Input resolution displays on the bottom of the OSD screen.

3) SDI INPUT Menu



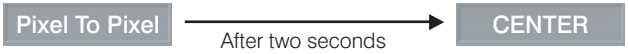
· LVM-071W Series unit is capable of processing single SDI Input signal.

· Press [SDI] button on the front of the monitor to select the SDI input. OSD menu displays as shown on the left.

#If no image displays after selecting the desired input mode, check and make sure that your connection is not lose or disconnected.

#Input resolution displays on the bottom of the OSD screen.

4) PIXEL TO PIXEL



· LVM-071W monitor's Pixel to Pixel mode displays input signal without scaling.

· Press [UNDERSCAN] button on the front of the monitor to activate the[Pixel To Pixel] mode.

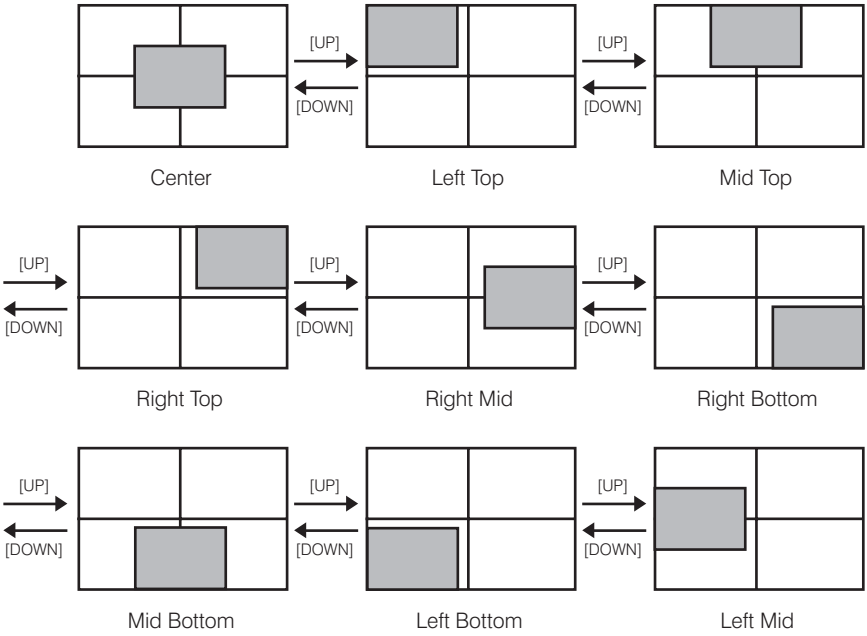
· In the [Pixel To Pixel] mode, use the [UP]/[DOWN] buttons to toggle between 1:1 scan sections.

Input	Action Button	Available Modes
HD 1080i/1080p	[UP] (Clockwise)	Center -> Left Top ->Mid Top -> Right Top -> Right Mid -> Right Bottom -> Mid Bottom -> Left Bottom -> Left Mid -> Center -> ….
	[DOWN] (Opposite)	Center -> Left Mid -> Left Bottom -> Mid Bottom -> Right Bottom -> Right Mid -> Right Top -> Mid Top -> Left Top -> Center -> …
HD 720p	[UP] (Clockwise)	Center -> Left Top -> Right Top -> Right Bottom -> left Bottom -> Center -> …
	[DOWN] (Opposite)	Center -> Left Bottom -> Right Bottom -> Right Top -> Left Top -> Center -> ….

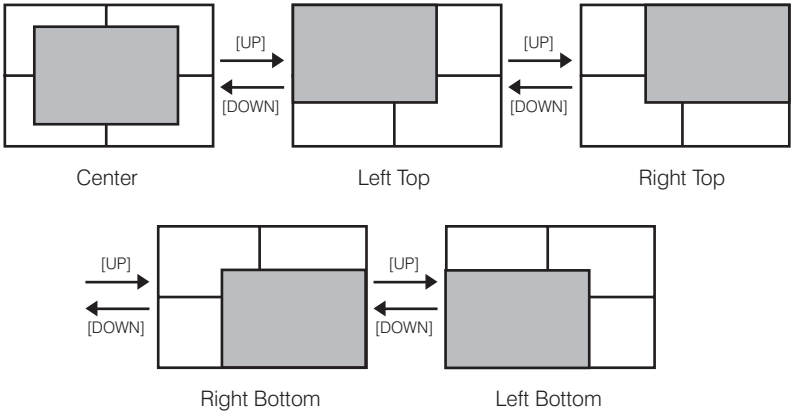
#Pixel To Pixel mode is not available in Graphic mode.

#Pixel To Pixel mode is available in SD mode, but 1:1 sections cannot be rotated through as with HD sources.

· Positions in HD Signal 1080i/1080p mode



· Position in HD Signal 720p mode



5) Waveform

· Waveform Position

Waveform OFF

Waveform ON

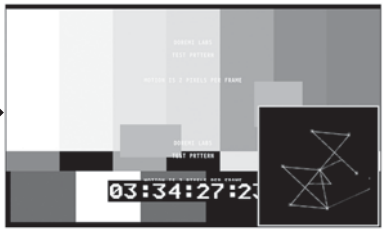
#This function is only available with SDI Input.

6) Vector Scope

· Vector Scope Position

Vector Scope OFF

Vector Scope ON



#This function is only available with SDI Input.

TVLogic

DVI Digital/Analog Input Signal Format

1) DVI Analog

Resolution (Source)	DotClock [MHz]	f H (kHz)	f V (Hz)	Sync (H/V)
640 x 350 70Hz (IBM)	25.175	31.469	70.086	P/N
640 x 480 60Hz (IBM)	25.175	31.469	59.940	N/P
720 x 400 70Hz (IBM)	28.322	31.469	70.087	N/P
640 x 480 67Hz (MAC)	30.240	35.000	66.667	N/N
832 x 624 75Hz (MAC)	57.284	49.726	74.551	N/N
1152 x 870 75Hz (MAC)	100.00	68.681	75.062	N/N
640 x 480 75Hz (VESA)	31.500	37.500	75.000	N/N
640 x 480 72Hz (VESA)	31.500	37.861	72.809	N/N
800 x 600 56Hz (VESA)	36.000	35.156	56.250	N/N
800 x 600 60Hz (VESA)	40.000	37.879	60.317	P/P
800 x 600 75Hz (VESA)	49.500	46.875	75.000	P/P
800 x 600 72Hz (VESA)	50.000	48.077	72.188	P/P
1024 x 768 60Hz (VESA)	65.000	48.363	60.004	N/N
1024 x 768 70Hz (VESA)	75.000	56.476	70.069	N/N
1024 x 768 75Hz (VESA)	78.750	60.023	75.029	P/P
1152 x 864 75Hz (VESA)	108.00	67.500	75.000	P/P
1280 x 1024 60Hz (VESA)	108.00	60.000	60.000	P/P
1280 x 1024 75Hz (VESA)	135.00	79.976	75.025	P/P

Supported Video Mode	480/60p, 576/50p , 720/50p, 720/60p, 1080/60p

2) DVI Digital

Resolution (Source)	DotClock [MHz]	f H (kHz)	f V (Hz)	Sync (H/V)
640 x 350 70Hz (IBM)	25.175	31.469	70.086	P/N
640 x 480 60Hz (IBM)	25.175	31.469	59.940	N/P
720 x 400 70Hz (IBM)	28.322	31.469	70.087	N/P
640 x 480 67Hz (MAC)	30.240	35.000	66.667	N/N
832 x 624 75Hz (MAC)	57.284	49.726	74.551	N/N
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800 x 600 60Hz (VESA)	40.000	37.879	60.317	P/P
800 x 600 75Hz (VESA)	49.500	46.875	75.000	P/P
800 x 600 72Hz (VESA)	50.000	48.077	72.188	P/P
1024 x 768 60Hz (VESA)	65.000	48.363	60.004	N/N
1024 x 768 70Hz (VESA)	75.000	56.476	70.069	N/N
1024 x 768 75Hz (VESA)	78.750	60.023	75.029	P/P
1152 x 864 75Hz (VESA)	108.00	67.500	75.000	P/P
1280 x 1024 60Hz (VESA)	108.00	60.000	60.000	P/P
1280 x 1024 75Hz (VESA)	135.00	79.976	75.025	P/P

Supported Video Mode	480/60i, 480/60p, 576/50i, 576/50p , 720/50p 720/60p, 1080/50i, 1080/60i,1080/24p 1080/25p, 1080/30p, 1080/50p, 1080/60p

PRODUCT SPECIFICATIONS

Input	1 x DVI-I	DVI IN / VGA IN
	3 x BNC	Analog Input
	1 x BNC	SDI 1 Channel Input
Output	1 x BNC	SDI Channel (Active Through Out)
Input Signal	Analog	Composite / S-Video / Component / RGB
	HD-SDI	1.485Gbps
	SD-SDI	270Mbps
	DVI	640×480 / 800×600 / 1024×768 / 1280×768
	VGA	640×480 / 800×600 / 1024×768 / 1280×768
Analog Input Spec	Composite	1.0Vpp (With Sync)
	S-Video	1.0Vpp (Y With Sync), 0.286 Vpp (C)
	Component	1.0Vpp (Y With Sync), 0.7 Vpp (Pb,Pr)
	RGB	1.0Vpp (G With Sync), 0.7 Vpp (B,R)
SDI Input Signal Formats	SMPTE-274M	1080i (60 / 59.94 / 50)
		1080p (30 / 29.97 / 25 / 24 / 24sF / 23.98 / 23.98sF)
	SMPTE-296M	720p (60 / 59.94 / 50)
	SMPTE-260M	1035i (60 / 59.94)
	SMPTE-125M	480i (59.94)
	ITU-R BT.656	576i (50)
Audio IN		Embedded Audio
		Analog stereo (Phone Jack)
Audio OUT		Analog stereo (Phone Jack)
		Internal Speaker(Mono)
LCD	Size	**7.0"**
	Resolution	800 x 480 (15:9)
	Dot Pitch	0.190 mm
	Color	16.7M(true), 24bit
	Viewing Angle	H : 130 degrees
	(Typical)	V : 115 degrees
	Luminance of White	350cd (center)
	Contrast	300:1
	Display Area	152 x 91 mm
Power		12V DC
Power Consumption (Approx.)		18 Watts(DC)
Operating Temperature		0 °C to 40 °C (32 °F to 104 °F)
Storage Temperature		-30 °C to 50 °C (-22 °F to 122 °F)
Main Body Dimensions (mm/inch)		203 x 131 x 60 (8.39 x 5.16 x 2.36)
Main Body Dimensions (with stand)		217 x 143 x 69 (8.54 x 5.63 x 2.72)
Weight		1Kg / 2.2 lb
Accessory		DC Power Adapter Camera Mount
Option		19" Rack Mountable Kit (3U) (Dual Monitor)

* Above specifications may be changed without notice

Multi

HDMI

TVLogic Product Line

LVM - 084

LVM - 170W (G)

LVM - 240W

LVM - 400W

LVM - 460W

LVM - 570W

LHM - 400W

LHM - 460W

LHM - 570W

Developed by TVLogic

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