

# Input Signal Chart



# SONY LUMA Series Monitor Line-up

## LMD-4250W, LMD-2450W, LMD-2050W Video Input

Video Signal Formats	Input Signal				Interface					
	Total Line	Active Line	Aspect Ratio	Frame rate*1	Composite Y/C	RGB Component	SDI 4:2:2	SD-SDI HD-SDI	Composite Y/C	RGB Component
					Standard	Optional BKM-220D	Optional BKM-243HS	Optional BKM-227W	Optional BKM-229X	
575/50i (PAL)	625	575	16:9 & 4:3	25	○	○	○	○	○	○
480/60i (NTSC)	525	483	16:9 & 4:3	30	○	○	○	○	○	○
576/50p	625	576	16:9 & 4:3	50	-	○	-	-	-	○
480/60p	525	483	16:9 & 4:3	60	-	○	-	-	-	○
1080/24PsF	1125	1080	16:9	24	-	○ <sup>2</sup>	-	○	-	○ <sup>2</sup>
1080/25PsF	1125	1080	16:9	25	-	○ <sup>2</sup>	-	○	-	○ <sup>2</sup>
1080/24p	1125	1080	16:9	24	-	○ <sup>2</sup>	-	○	-	○ <sup>2</sup>
1080/25p	1125	1080	16:9	25	-	○ <sup>2</sup>	-	○	-	○ <sup>2</sup>
1080/30p	1125	1080	16:9	30	-	○ <sup>2</sup>	-	○	-	○ <sup>2</sup>
1080/50i	1125	1080	16:9	25	-	○	-	○	-	○
1080/60i	1125	1080	16:9	30	-	○	-	○	-	○
720/50p	750	720	16:9	50	-	○ <sup>2</sup>	-	○	-	○ <sup>2</sup>
720/60p	750	720	16:9	60	-	○	-	○	-	○

\*1 Compatible with 1/1.001 \*2 For component input only

## LMD-2030W, LMD-1420, LMD-1410 Video Input

System	Input Signal			Interface			
	Total Line	Active Line	Aspect Ratio	Composite Y/C	RGB Component	SD-SDI	HDMI
				Standard	Optional BKM-320D	Standard	
Model				LMD-2030W LMD-1420 LMD-1410	LMD-2030W LMD-1420 LMD-1410	LMD-2030W LMD-1420	LMD-2030W
575/50i (PAL)	625	575	16:9/4:3	○	○	○	○ <sup>3</sup>
480/60i (NTSC) <sup>1</sup>	525	483	16:9/4:3	○	○	○	○ <sup>4</sup>
576/50P	625	576	16:9/4:3	-	○	-	○
480/60P	525	483	16:9/4:3	-	○	-	○
1080/24PsF <sup>1</sup>	1125	1080	16:9	-	○ <sup>2</sup>	-	-
1080/25PsF	1125	1080	16:9	-	○ <sup>2</sup>	-	-
1080/24P <sup>1</sup>	1125	1080	16:9	-	○ <sup>2</sup>	-	○
1080/25P	1125	1080	16:9	-	○ <sup>2</sup>	-	○
1080/30P <sup>1</sup>	1125	1080	16:9	-	○ <sup>2</sup>	-	○
1080/50i	1125	1080	16:9	-	○ <sup>2</sup>	-	○
1080/60i <sup>1</sup>	1125	1080	16:9	-	○	-	○
720/50P	750	720	16:9	-	○ <sup>2</sup>	-	○
1080/60P <sup>1</sup>	750	720	16:9	-	○	-	○

\*1 The frame rate is also compatible with 1/1.001 frame rates. \*2 Component signals only.  
\*3 720 (1440) x 576i @ 50 Hz. \*4 720 (1440) x 480i @ 59.94/60 Hz.

## LMD-9050, LMD-9030, LMD-9020 Video Input

System	Input Signal			Standard Interface			
	Total Lines	Active Line	Aspect Ratio	Composite Y/C (x 1)	RGB Component (x 1)	SDI (x2)	
				Standard	Optional BKM-320D	Standard	
Model				LMD-9050 LMD-9030 LMD-9020	LMD-9050 LMD-9030 LMD-9020	LMD-9050 LMD-9030	LMD-9050
575/50i	625	575	16:9/4:3	○	○	○	-
480/60i*	525	483	16:9/4:3	○	○	○	-
480/60P	525	483	16:9/4:3	-	○	-	-
576/50P	625	483	16:9/4:3	-	○	-	-
1080/24PsF	1125	1080	16:9	-	○	-	○
1080/50i	1125	1080	16:9	-	○	-	○
1035/60i*	1125	1035	16:9	-	○	-	○
1080/60i*	1125	1080	16:9	-	○	-	○
720/50P	750	1080	16:9	-	○	-	○
720/60P	750	720	16:9	-	○	-	○

\* Also accepts 59.94 Hz field rate.

## LMD-4250W, LMD-2450W, LMD-2050W Computer Input Signals

Resolution	H Total	H Addr.	V Total	V Addr.	Dot Clock (MHz)	fH (kHz)	fV (Hz)	Sync Polarity		LMD-4250W	LMD-2450W	LMD-2050W
								Horizontal	Vertical			
640x480 @60Hz*	800	640	525	480	25.175	31.469	59.940	N	N	○	○	○
640x480 @60Hz	800	640	494	480	23.625	29.531	59.780	P	N	○	○	○
640x480 @72Hz	832	640	520	480	31.500	37.861	72.809	N	N		○	○
640x480 @75Hz	840	640	500	480	31.500	37.500	75.000	N	N		○	○
640x480 @85Hz	832	640	509	480	36.000	43.269	85.008	N	N		○	○
720x400 @70Hz	900	720	449	400	28.322	31.469	70.087	N	P	○	○	○
800x600 @56Hz*	1024	800	625	600	36.000	35.156	56.250	P	P	○	○	○
800x600 @60Hz*	1056	800	628	600	40.000	37.879	60.317	P	P	○	○	○
800x600 @60Hz	960	800	618	600	35.500	36.979	59.837	P	N	○	○	○
800x600 @72Hz*	1040	800	666	600	50.000	48.077	72.188	P	P	○	○	○
800x600 @75Hz*	1056	800	625	600	49.500	46.875	75.000	P	P	○	○	○
800x600 @85Hz*	1048	800	631	600	56.250	53.674	85.061	P	P	○	○	○
1024x768 @60Hz*	1344	1024	806	768	65.000	48.363	60.004	N	N	○	○	○
1024x768 @60Hz	1184	1024	790	768	56.000	47.297	59.870	P	N	○	○	○
1024x768 @70Hz*	1328	1024	806	768	75.000	56.476	70.069	N	N	○	○	○
1024x768 @75Hz*	1312	1024	800	768	78.750	60.023	75.029	P	P	○	○	○
1024x768 @85Hz*	1376	1024	808	768	94.500	68.677	84.997	P	P	○	○	○
1152x864 @75Hz*	1600	1152	900	864	108.000	67.500	75.000	P	P	○	○	○
1280x768 @50Hz	1648	1280	791	768	65.125	39.518	49.959	N	P	○	○	○
1280x768 @60Hz	1680	1280	795	768	80.125	47.693	59.992	N	P	○	○	○
1280x768 @60Hz	1440	1280	790	768	68.250	47.396	59.995	P	N	○	○	○
1280x768 @75Hz	1712	1280	802	768	102.875	60.091	74.926	N	P	○	○	○
1280x800 @60Hz <sup>1</sup>					68.900	48.935	59.969	N	N	○	○	○
1280x960 @60Hz*	1800	1280	1000	960	108.000	60.000	60.000	P	P	○	○	○
1280x960 @60Hz	1440	1280	988	960	85.250	59.201	59.920	P	N	○	○	○
1280x1024 @60Hz*	1688	1280	1066	1024	108.000	63.981	60.020	P	P	○	○	○
1280x1024 @60Hz	1440	1280	1054	1024	91.000	63.194	59.957	P	N	○	○	○
1360x768 @50Hz	1760	1360	791	768	69.500	39.489	49.922	N	P	○	○	○
1360x768 @60Hz	1776	1360	768	768	84.625	47.649	59.936	N	P	○	○	○
1360x768 @60Hz	1520	1360	790	768	72.000	47.368	59.960	P	N	○	○	○
1600x1200 @50Hz	2144	1600	1235	1200	132.375	61.742	49.994	N	P		○	
1600x1200 @60Hz*	2160	1600	1250	1200	162.000	75.000	60.000	P	P		○	
1600x1200 @60Hz	1760	1600	1235	1200	130.375	74.077	59.981	P	N		○	
1920x1080 @50Hz	2544	1920	1112	1080	141.375	55.572	49.975	N	P	○	○	○
1920x1200 @50Hz	2560	1920	1235	1200	158.000	61.719	49.975	N	P		○	
1920x1080 @60Hz	2080	1920	1111	1080	138.625	66.647	59.988	P	N	○	○	○
1920x1200 @60Hz	2080	1920	1235	1200	154.125	74.099	59.999	P	N		○	
1920x1200 @60Hz	2120	1920	1212	1200	154.000	74.642	59.935	P	P		○	

N = Negative P = Positive \* SOG \*\*1 Anycast Station

## High-grade One-piece Type

Model No.	LMD-4250W	LMD-2450W	LMD-2050W
PANEL Type	α-Si TFT Active Matrix		
Picture Size*	42-inch	24-inch	20-inch
Picture Resolution	1920 x 1200 pixels		1680 x 1050 pixels
Panel Aspect Ratio	16:9	16:10	
Panel Bit Depth	8 bit		
INPUT/ OUTPUT CAPABILITY	HD (Digital/Analog)/SD (Digital/Analog)		
Acceptable Computer System	Full HD	upto WUXGA	upto WSXGA+
<b>ANALOG VIDEO</b>			
Composite	BNC x 1 (IN), BNC x 1 (OUT**)		
Y/C	4-pin Mini-DIN x 1 (IN), 4-pin mini-DIN x 1 (OUT**)		
Component/RGB	BNC x 3 (IN), BNC x 3 (OUT**)		
HD-15	D-sub 15-pin x 1 (IN)		
External Sync	BNC x 1 (IN), BNC x 1 (OUT**)		
<b>DIGITAL INTERFACE</b>			
SD-SDI Input	BKM-220D, BKM-243HS		
HD-SDI Input	BKM-243HS		
SDI with Audio Decoding	Yes		
HDMI	No		
DVI-D	DVI-D x 1 (IN)		
Option Board	2 slots (BKM-220D, BKM-243HS, BKM-227W, BKM-229X)		
<b>Control</b>			
Parallel	Modular 8-pin x 1		
Serial	D-sub 9-pin (RS-232C) x 1, RJ-45 modular connector (LAN, 10BASE-T/100BASE-TX) x 1		
<b>Audio</b>			
Audio Input/Output	Phono Jack x 2 (IN), Phono Jack x 2 (OUT)		
Built-in Speaker Out	1.0 W + 1.0 W Stereo		
<b>Features</b>			
Signal Processing	10 bit		
Color Matching	ChromaTru		
Marker	Aspect, Center, Safety Area		
Color Temperature	9300k, 6500k, user		
Closed Caption	YES (SMPTE 608)		
Aspect Switch	16:9, 4:3		
Scan	0%, 5%		
Blue Only	Yes		
H/V Delay	Yes		
Tally	No	3-Color	
Smart APA	Yes		
EIA 19-inch Rack Mounting	Not Applicable		MB-529
VESA Mounting	400 x 400 mm	100 x 100 mm	
Desk-top Stand	No	Supplied	
Li-ion Battery Operation	No		
DC Operation	No		
Application	MED	EDU	COR CC GOV ENT

\* Viewable area, measured diagonally.

\*\* Loop-Through, Automatic Termination.

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# SONY LUMA Series Monitor Line-up

## Entry-level one-piece Type

Model No.	LMD-2030W	LMD-1420	LMD-1410
PANEL Type	α-Si TFT Active Matrix		
Picture Size*	20-inch	14-inch	
Picture Resolution	1680 x 1050 pixels	640 x 480 pixels	
Panel Aspect Ratio	16:10	4:3	
Panel Bit Depth	8 bit		
INPUT/ OUTPUT CAPABILITY	HD (Digital/Analog)/ SD (Digital/Analog)	HD (Analog)/ SD (Digital/Analog)	HD (Analog)/ SD (Analog)
Acceptable Computer System	No		
ANALOG VIDEO			
Composite	BNC x 1 (IN), BNC x 1 (OUT**)	BNC x 2 (IN), BNC x 2 (OUT**)	
Y/C	4-pin Mini-DIN x 1 (IN), 4-pin mini-DIN x 1 (OUT**)		
Component/RGB	BNC x 3 (IN), BNC x 3 (OUT**), Phono Jack x 1 (IN), Phono Jack x 1 (OUT**)		
HD-15	No		
External Sync	BNC x 1 (IN), BNC x 1 (OUT**)	No	
DIGITAL INTERFACE			
SD-SDI Input	BKM-320D, Phono Jack x 1 (IN)	No	
HD-SDI Input	No		
SDI with Audio Decoding	No		
HDMI	Yes	No	
DVI-D	No		
Option Board	D-sub 9-pin x 1, (BKM-320D IN)		
Control			
Parallel	Modular 8-pin x 1		
Serial	No		
Audio			
Audio Input/Output	Phono Jack x 1 (IN), Phono Jack x 1 (OUT**)	Phono Jack x 2 (IN), Phono Jack x 2 (OUT)	
Built-in Speaker Out	0.5 W Mono		
Features			
Signal Processing	8 bit		
I/P Conversion			
Color Matching			
Scaling			
Marker	Aspect, Center	Aspect, Center, Safety Area	No
Color Temperature	High, Low, User		
Closed Caption	No		
Aspect Switch	16:9, 4:3		
Scan	-3%, 5%		
Blue Only	Yes	No	
H/V Delay	No		
Tally	3-Color		
EIA 19-inch Rack Mounting	MB-529	MB-525	MB-526
VESA Mounting	100 x 100 mm		
Desk-top Stand	Supplied		
Li-ion Battery Operation	No		
DC Operation	No		
Application	<span>MED</span> <span>EDU</span> <span>COR</span> <span>CC</span> <span>GOV</span> <span>SEC</span> <span>ENT</span> <span>SYS</span> <span>FAC</span>		

\* Viewable area, measured diagonally. \*\* Loop-Through, Automatic Termination.

## Handheld Type

Model No.	LMD-9050	LMD-9030	LMD-9020
PANEL Type	α-Si TFT Active Matrix		
Picture Size*	8.4-inch		
Picture Resolution	1024 x 768 pixels	640 x 480 pixels	
Panel Aspect Ratio	4:3		
Panel Bit Depth	8 bit		
INPUT/ OUTPUT CAPABILITY	HD (Digital/Analog)/ SD (Digital/Analog)	HD (Analog)/ SD (Digital/Analog)	HD (Analog)/ SD (Analog)
Acceptable Computer System	No		
ANALOG VIDEO			
Composite	BNC x 2 (IN), BNC x 2 (OUT)		
Y/C	4-pin Mini-DIN x 1 (IN), 4-pin mini-DIN x 1 (OUT)		
Component/RGB	BNC x 3 (IN), Mini Jack x 1 (IN)		
HD-15	No		
External Sync	BNC x 1 (IN)		
DIGITAL INTERFACE			
SD-SDI Input	BNC x 2 (IN) BNC x 1 (OUT)	BNC x 2 (IN) BNC x 1 (OUT)	No
HD-SDI Input	Automatic Detection	No	
SDI with Audio Decoding	Yes	No	
Option Board	No		
Parallel	Modular 8-pin x 1		
Audio			
Audio Input/Output	Mini Jack x 2 (IN), Mini Jack x 1 (OUT)		
Built-in Speaker Out	0.5 W Mono		
Features			
Marker	Aspect, Center		
Color Temperature	High, Low, User		
Aspect Switch	16:9, 4:3		
Scan	-3%, 0%, 5%		
Blue Only	Yes		
Tally	3-Color		
EIA 19-inch Rack Mounting	MB-525		
Desk-top Stand	Supplied		
Li-ion Battery Operation	Yes		
DC Operation	Yes		
Application	<span>EDU</span> <span>COR</span> <span>CC</span> <span>GOV</span> <span>FAC</span>		

\* Viewable area, measured diagonally.

## Multi-display Type

Model No.	LMD-7220W	LMD-5320	LMD-4420
PANEL Type	α-Si TFT Active Matrix		
Picture Size*	7-inch x 2	5.6-inch x 3	4-inch x 4
Picture Resolution	480 x 234 pixels	320 x 234 pixels	480 x 234 pixels
Panel Aspect Ratio	16:9	4:3	
Panel Bit Depth	8 bit		
INPUT/ OUTPUT CAPABILITY	HD (Analog)/SD (Digital/Analog)		
Acceptable Computer System	No		
ANALOG VIDEO			
Composite	{ BNC x 1 (OUT**) } x 2 monitors	{ BNC x 1 (OUT**) } x 3 monitors	{ BNC x 1 (OUT**) } x 4 monitors
Y/C	No		
Component/RGB	No		
HD-15	No		
External Sync	No		
DIGITAL INTERFACE			
SD-SDI Input	BKM-320D x 2	BKM-320D x 3	BKM-320D x 4
HD-SDI Input	No		
SDI with Audio Decoding	No		
Option Board	{ D-sub 9-pin x 1, (BKM-320D IN) } x 2 monitors	{ D-sub 9-pin x 1, (BKM-320D IN) } x 3 monitors	{ D-sub 9-pin x 1, (BKM-320D IN) } x 4 monitors
Parallel	{ Modular 8-pin x 1 } x 2 monitors	{ Modular 8-pin x 1 } x 3 monitors	{ Modular 8-pin x 1 } x 4 monitors
Audio			
Audio Input/Output	No		
Built-in Speaker Out	No		
Features			
Marker	No		
Color Temperature	No		
Aspect Switch	No		
Scan	No		
Blue Only	No		
Tally	3-Color		
EIA 19-inch Rack Mounting	Supplied		
Desk-top Stand	Supplied		
Li-ion Battery Operation	No		
DC Operation	Yes		
Application	<span>EDU</span> <span>COR</span> <span>CC</span> <span>GOV</span> <span>SEC</span> <span>CON</span>		

\* Viewable area, measured diagonally. \*\* Loop-Through, Automatic Termination.

### Application Icons

- MED Medical
- EDU Education
- COR Corporate
- CC Content Creation
- GOV Government
- SEC Security
- ENT Entertainment
- SYS System Integrator
- FAC Factory