



【Confidential】

**1page Spec Sheet
for
31.1"(78.91cm)LCD MONITOR**

MODEL NAME : MultiSync PA311D-BK

Ver 1.1

Date : 2019, Nov. 20th

Designed by :H.Kumai,

H. Kumai

Checked by :-

Approved by : N.Itakura,

N. Itakura

Monitor Business Department
Display Business Division

NEC Display Solutions,Ltd.

07DW1YAN-N

		Rev.1.1		Rev.1.1		Rev.1.1	
		PA311D-BK		PA311D-BK		PA311D-BK	
1. Destination-Color		A version BK		B version BK		C version BK	
		Bx Max.		0.179		0.179	
		By Max.		0.084		0.084	
		Wx Max.		0.333		0.333	
		Wy Max.		0.347		0.347	
		Rx/y, Gx/y, Bx/y Min.		Typ. + 0.03		Typ. + 0.03	
		Rx Min.		0.654		0.654	
		Ry Min.		0.283		0.283	
		Gx Min.		0.182		0.182	
		Gy Min.		0.692		0.692	
		Bx Min.		0.119		0.119	
		By Min.		0.024		0.024	
		Wx Min.		0.273		0.273	
		Wy Min.		0.287		0.287	
	Viewing Angle(Typ.) (CR>=10)	Up		89degree		89degree	
		Down		89degree		89degree	
		Right		89degree		89degree	
		Left		89degree		89degree	
	Display colors	Bits		10bit		10bit	
	Surface treatment	Number of colors		1,073,741,824		1,073,741,824	
		Type		Anti-Glare		Anti-Glare	
		Haze		42%		42%	
		Hardness		3H		3H	
2.4. Environment	Environmental rating 環境仕様	Storage Temp. Max.		50°C		50°C	
		Storage Temp. Min.		-20°C		-20°C	
		Storage humidity Max.		85%		85%	
		Operation Temp. Max.		40°C		40°C	
		Operation Temp. Min.		0°C		0°C	
		Operation humidity Max.		85%		85%	
		X, Y axis direction		N/A		N/A	
	Shock	Z axis direction		N/A		N/A	
	Vibration			N/A		N/A	
	Portrait	Support		No		No	
	Face up/down	Support		No		No	
	24H/7days	Support		Yes		Yes	

Product spec.					
3.1. Screen					
	Recommended resolution 推奨解像度		4096x2160 (60Hz)	4096x2160 (60Hz)	
	Aspect ratio アスペクト比		17:9	17:9	
	Brightness 輝度	Maximum setting (Typ.)	350cd/m^2	350cd/m^2	350cd/m^2
		Maximum setting (Min.)	280cd/m^2	280cd/m^2	280cd/m^2
		Shipping setting (Typ.)	160cd/m^2	290cd/m^2	290cd/m^2
		Minimum setting (Typ.)	20cd/m^2	20cd/m^2	20cd/m^2
	Active area size 有効表示領域寸法	Horizontal (mm)	698.0mm	698.0mm	698.0mm
		Horizontal (in.)	27.5in.	27.5in.	27.5in.
		Vertical (mm)	368.1mm	368.1mm	368.1mm
		Vertical (in.)	14.5in.	14.5in.	14.5in.
	Screen size 画面サイズ	(cm)	78.91cm	78.91cm	78.91cm
		(in.)	31.1in.	31.1in.	31.1in.
	Viewing Angle (CR>=10)	Up	89degree	89degree	89degree
		Down	89degree	89degree	89degree
		Right	89degree	89degree	89degree
		Left	89degree	89degree	89degree
	Protection glass 保護ガラス		No	No	No
		Material			
		Thickness			
		Surface treatment			
		Transparency			
		Reflection			
		Hardness			
		Impact resistance			
		Haze			
3.2. Mechanical					
3.2.2.1. Mechanical (IT/Pro, International System of Units)					
Design Type	Monitor	Stockholm like design	Stockholm like design	Stockholm like design	
Material (Flame class)	Front cabinet				
		PC+ABS (94 V-0)	PC+ABS (94 V-0)	PC+ABS (94 V-0)	
	Rear Cover	PC+ABS (94 V-0)	PC+ABS (94 V-0)	PC+ABS (94 V-0)	
	Stand/Base	PC+ABS (94 V-0)	PC+ABS (94 V-0)	PC+ABS (94 V-0)	
Color	Bezel	Pure Black	Pure Black	Pure Black	
	Back cover	Pure Black	Pure Black	Pure Black	
Cabinet gloss-level (Bezel / front of Stand)	Reflection value <=20degree	Yes	Yes	Yes	
Net Dimensions	with stand, Landscape, Width(mm)	737.9mm	737.9mm	737.9mm	
	(in.)	29.1in.	29.1in.	29.1in.	
	with stand, Landscape, Height(Low)(mm)	433.2mm	433.2mm	433.2mm	
	(in.)	17.1in.	17.1in.	17.1in.	
	with stand, Landscape, Height(High)(mm)	583.2mm	583.2mm	583.2mm	
	(in.)	23.0in.	23.0in.	23.0in.	
	with stand, Landscape, Depth(mm)	301.6mm	301.6mm	301.6mm	
	(in.)	11.9in.	11.9in.	11.9in.	
	with stand, Portrait, Width(mm)	NA	NA	NA	
	(in.)	-	-	-	
	with stand, Portrait, Height(Low)(mm)	NA	NA	NA	
	(in.)	-	-	-	
	with stand, Portrait, Height(High)(mm)	NA	NA	NA	
	(in.)	-	-	-	
	with stand, Portrait, Depth(mm)	NA	NA	NA	
	(in.)	-	-	-	
	w/o stand, Landscape, Width(mm)	737.9mm	737.9mm	737.9mm	
	(in.)	29.1in.	29.1in.	29.1in.	
	w/o stand, Landscape, Height(mm)	413.6mm	413.6mm	413.6mm	
	(in.)	16.3in.	16.3in.	16.3in.	
	w/o stand, Landscape, Depth(mm)	79.7mm	79.7mm	79.7mm	
	(in.)	3.1in.	3.1in.	3.1in.	
	w/o stand, Portrait, Width(mm)	413.6mm	413.6mm	413.6mm	
	(in.)	16.3in.	16.3in.	16.3in.	
	w/o stand, Portrait, Height(mm)	737.9mm	737.9mm	737.9mm	
	(in.)	29.1in.	29.1in.	29.1in.	
	w/o stand, Portrait, Depth(mm)	79.7mm	79.7mm	79.7mm	
	(in.)	3.1in.	3.1in.	3.1in.	
	Net weight	with stand(kg)	14.9kg	14.9kg	14.9kg
		(lbs)	32.8lbs	32.8lbs	32.8lbs
		w/o stand(kg)	8.6kg	8.6kg	8.6kg
		(lbs)	19.0lbs	19.0lbs	19.0lbs
Bezel width	Top(mm)	22.1mm	22.1mm	22.1mm	
	(in.)	0.87in.	0.87in.	0.87in.	
	Bottom(mm)	22.1mm	22.1mm	22.1mm	
	(in.)	0.87in.	0.87in.	0.87in.	
	Right(mm)	19.3mm	19.3mm	19.3mm	
	(in.)	0.76in.	0.76in.	0.76in.	
	Left(mm)	19.3mm	19.3mm	19.3mm	
	(in.)	0.76in.	0.76in.	0.76in.	
Distance from panel active area to outside edge of	Top(mm)	22.8mm	22.8mm	22.8mm	
	(in.)	0.90in.	0.90in.	0.90in.	
	Bottom(mm)	22.8mm	22.8mm	22.8mm	
	(in.)	0.90in.	0.90in.	0.90in.	
	Right(mm)	20.0mm	20.0mm	20.0mm	
	(in.)	0.79in.	0.79in.	0.79in.	
	Left(mm)	20.0mm	20.0mm	20.0mm	
	(in.)	0.79in.	0.79in.	0.79in.	
VESA mount	Yes	Yes	Yes	Yes	
	Horizontal dimension	100 / 200 mm	100 / 200 mm	100 / 200 mm	
	Vertical dimension	100mm	100mm	100mm	
	Number of holes	10pcs	10pcs	10pcs	
	Screw type	M4	M4	M4	
	Screw length	12.0mm	12.0mm	12.0mm	
	Mounting on a flexible arm	-	-	-	
	No	No	No	No	
Low position VESA hole	Horizontal dimension	-	-	-	
	Vertical dimension	-	-	-	
Height Adjustment	Yes	Yes	Yes	Yes	
	Landscape	150mm	150mm	150mm	
		5.9in.	5.9in.	5.9in.	
	Portrait	NA	NA	NA	
		-	-	-	

4. Terminal & Slot				
4.1. Video terminal				
Video input terminal	HDMI Input	HDMI1(HDMI2.0)	HDMI1(HDMI2.0)	HDMI1(HDMI2.0)
		HDMI2 (HDMI2.0)	HDMI2 (HDMI2.0)	HDMI2 (HDMI2.0)
	DisplayPort Input	DisplayPort1 (DisplayPort)	DisplayPort1 (DisplayPort)	DisplayPort1 (DisplayPort)
		DisplayPort2 (DisplayPort)	DisplayPort2 (DisplayPort)	DisplayPort2 (DisplayPort)
		USB Type-C (DisplayPort)	USB Type-C (DisplayPort)	USB Type-C (DisplayPort)
	DVI Input	-	-	-
	VGA Input	-	-	-
	Video Input	-	-	-
	Number of terminal	5	5	5
Video output terminal				
	HDMI Output	-	-	-

			Rev.1.1	Rev.1.1	Rev.1.1
			PA311D-BK	PA311D-BK	PA311D-BK
1. Destination-Color			A version BK	B version BK	C version BK
		DisplayPort Output	-	-	-
			-	-	-
		Number of Terminal	-	-	-
4.2. Audio terminal	Audio input terminal		HDMI1	HDMI1	HDMI1
			HDMI2	HDMI2	HDMI2
			DisplayPort1	DisplayPort1	DisplayPort1
			DisplayPort2	DisplayPort2	DisplayPort2
			USB Type-C	USB Type-C	USB Type-C
		Number of Terminal	5	5	5
	Audio output terminal		Head phone out (Stereo Mini Jack)	Head phone out (Stereo Mini Jack)	Head phone out (Stereo Mini Jack)
4.3. USB terminal	USB Terminal	Upstream (to host)	USB1 (USB Type-B)	USB1 (USB Type-B)	USB1 (USB Type-B)
			USB2 (USB Type-B)	USB2 (USB Type-B)	USB2 (USB Type-B)
			USB3 (USB Type-C)	USB3 (USB Type-C)	USB3 (USB Type-C)
		Number of terminal	3	3	3
		Downstream (to device)	USB1 (USB Type-A)	USB1 (USB Type-A)	USB1 (USB Type-A)
			USB2 (USB Type-A)	USB2 (USB Type-A)	USB2 (USB Type-A)
			USB3 (USB Type-A)	USB3 (USB Type-A)	USB3 (USB Type-A)
4.4. Communications terminal	USB Terminal	Number of terminal	3	3	3
		Other	USB HOST (USB Type-A)	USB HOST (USB Type-A)	USB HOST (USB Type-A)
		Number of terminal	1	1	1
	Control Terminal	LAN	LAN (RJ-45)	LAN (RJ-45)	LAN (RJ-45)
		Number of terminal	1	1	1
		USB	USB1 (USB Type-B)	USB1 (USB Type-B)	USB1 (USB Type-B)
			USB2 (USB Type-B)	USB2 (USB Type-B)	USB2 (USB Type-B)
			USB3 (USB Type-C)	USB3 (USB Type-C)	USB3 (USB Type-C)
4.5. Slot	USB Terminal	Number of terminal	3	3	3
		RS-232C	-	-	-
		Number of terminal	0	0	0
		ControlSync in/out	-	-	-
		Connector type of ControlSync	-	-	-
		Max number of connected sub monitor via ControlSync	-	-	-
		Other	-	-	-
4.5. Slot	SD card slot	Number of slot	-	-	-
			-	-	-
		Interface for extended options	-	-	-
5. In-out signal					
5.1. Analog RGB input					
5.1. Analog RGB input	Terminal 1	Terminal name	-	-	-
		Connector type	-	-	-
		Max Resolution	-	-	-
		Horizontal frequency Max.	-	-	-
		Horizontal frequency Min.	-	-	-
		Vertical frequency Max.	-	-	-
		Vertical frequency Min.	-	-	-
		Video clock frequency Max.	~	~	~
		Video clock frequency Min.	~	~	~
		Video Signal Level	-	-	-
		Video Signal Impedance	-	-	-
		Separate sync: TTL Level	-	-	-
		Composite sync: TTL Level	-	-	-
		Sync on Green: 0.3Vp-p negative	-	-	-
		Color type	-	-	-
		DDC/CI	-	-	-
5.2. DVI input	Terminal 1	Terminal name	-	-	-
		Connector type	-	-	-
		Max Resolution	-	-	-
		Horizontal frequency Max.	~	~	~
		Horizontal frequency Min.	~	~	~
		Vertical frequency Max.	~	~	~
		Vertical frequency Min.	~	~	~
		Dot clock frequency Max.	~	~	~
		Dot clock frequency Min.	~	~	~
		Interface	-	-	-
		Color type	-	-	-
		Dual-Link	-	-	-
		HDCP	-	-	-
		DDC/CI	-	-	-
5.3. HDMI input	Terminal 1	Terminal name	HDMI1	HDMI1	HDMI1
		Connector type	HDMI (Type A)	HDMI (Type A)	HDMI (Type A)
		Max Resolution	4096x2160@60	4096x2160@60	4096x2160@60
		Horizontal frequency Max.	~135.0kHz	~135.0kHz	~135.0kHz
		Horizontal frequency Min.	15kHz~	15kHz~	15kHz~
		Vertical frequency Max.	~75Hz	~75Hz	~75Hz
		Vertical frequency Min.	24Hz~	24Hz~	24Hz~
		Dot clock frequency Max.	~594MHz	~594MHz	~594MHz
		Dot clock frequency Min.	25MHz~	25MHz~	25MHz~
		Interface	Yes	Yes	Yes
		HDMI version	2.0	2.0	2.0
		Color type	RGB/YUV(4:4:4/2:2/4:2:0)	RGB/YUV(4:4:4/2:2/4:2:0)	RGB/YUV(4:4:4/2:2/4:2:0)
		Deep Color	Yes	Yes	Yes
		HDCP ver.	2.2/1.4	2.2/1.4	2.2/1.4
		CEC	No	No	No
	Terminal 2	Terminal name	HDMI2	HDMI2	HDMI2
		Connector type	HDMI (Type A)	HDMI (Type A)	HDMI (Type A)
		Max Resolution	4096x2160@60	4096x2160@60	4096x2160@60
		Horizontal frequency Max.	~135.0kHz	~135.0kHz	~135.0kHz
		Horizontal frequency Min.	15kHz~	15kHz~	15kHz~
		Vertical frequency Max.	~75Hz	~75Hz	~75Hz
		Vertical frequency Min.	24Hz~	24Hz~	24Hz~
		Dot clock frequency Max.	~594MHz	~594MHz	~594MHz
		Dot clock frequency Min.	25MHz~	25MHz~	25MHz~
		Interface	Yes	Yes	Yes
		HDMI version	2.0	2.0	2.0
		Color type	RGB/YUV(4:4:4/2:2/4:2:0)	RGB/YUV(4:4:4/2:2/4:2:0)	RGB/YUV(4:4:4/2:2/4:2:0)
		Deep Color	Yes	Yes	Yes
		HDCP	2.2/1.4	2.2/1.4	2.2/1.4
		CEC	No	No	No
	Terminal 3	Terminal name			
		Connector type			
		Max Resolution			
		Horizontal frequency Max.			
		Horizontal frequency Min.			
		Vertical frequency Max.			
		Vertical frequency Min.			
		Dot clock frequency Max.			
		Dot clock frequency Min.			
		Interface			
5.4. DisplayPort input	Terminal 1	Terminal name	DisplayPort1	DisplayPort1	DisplayPort1
		Connector type	DisplayPort	DisplayPort	DisplayPort
		Max Resolution	4096x2160@60	4096x2160@60	4096x2160@60
		Horizontal frequency Max.	~135.0kHz	~135.0kHz	~135.0kHz

			Rev.1.1	Rev.1.1	Rev.1.1
			PA311D-BK	PA311D-BK	PA311D-BK
1. Destination-Color			A version BK	B version BK	C version BK
		Horizontal frequency Min.	15kHz~	15kHz~	15kHz~
		Vertical frequency Max.	~75Hz	~75Hz	~75Hz
		Vertical frequency Min.	24Hz~	24Hz~	24Hz~
		Dot clock frequency Max.	~594MHz	~594MHz	~594MHz
		Dot clock frequency Min.	25MHz~	25MHz~	25MHz~
		DisplayPort Version	1.2/1.1a	1.2/1.1a	1.2/1.1a
		Color type	RGB(8bit, 10bit)	RGB(8bit, 10bit)	RGB(8bit, 10bit)
		Bit rate	RBR/HBR/HBR2	RBR/HBR/HBR2	RBR/HBR/HBR2
		MST	No	No	No
		HDCP	1.3/2.2	1.3/2.2	1.3/2.2
		Terminal 2			
		Terminal name	DisplayPort2	DisplayPort2	DisplayPort2
		Connector type	DisplayPort	DisplayPort	DisplayPort
		Max Resolution	4096x2160@60	4096x2160@60	4096x2160@60
		Horizontal frequency Max.	~135.0kHz	~135.0kHz	~135.0kHz
		Horizontal frequency Min.	15kHz~	15kHz~	15kHz~
		Vertical frequency Max.	~75Hz	~75Hz	~75Hz
		Vertical frequency Min.	24Hz~	24Hz~	24Hz~
		Dot clock frequency Max.	~594MHz	~594MHz	~594MHz
		Dot clock frequency Min.	25MHz~	25MHz~	25MHz~
		DisplayPort Version	1.2/1.1a	1.2/1.1a	1.2/1.1a
		Color type	RGB(8bit, 10bit)	RGB(8bit, 10bit)	RGB(8bit, 10bit)
		Bit rate	RBR/HBR/HBR2	RBR/HBR/HBR2	RBR/HBR/HBR2
		MST	No	No	No
		HDCP	1.3/2.2	1.3/2.2	1.3/2.2
	Terminal 3	Terminal name	USB Type-C	USB Type-C	USB Type-C
		Connector type	USB Type-C	USB Type-C	USB Type-C
		Max Resolution	4096x2160@60	4096x2160@60	4096x2160@60
		Horizontal frequency Max.	~135.0kHz	~135.0kHz	~135.0kHz
		Horizontal frequency Min.	15kHz~	15kHz~	15kHz~
		Vertical frequency Max.	~75Hz	~75Hz	~75Hz
		Vertical frequency Min.	24Hz~	24Hz~	24Hz~
		Dot clock frequency Max.	~594MHz	~594MHz	~594MHz
		Dot clock frequency Min.	25MHz~	25MHz~	25MHz~
		DisplayPort Version	1.2/1.1a	1.2/1.1a	1.2/1.1a
		Color type	RGB(8bit, 10bit)	RGB(8bit, 10bit)	RGB(8bit, 10bit)
		Bit rate	RBR/HBR/HBR2	RBR/HBR/HBR2	RBR/HBR/HBR2
		MST	No	No	No
		HDCP	1.3/2.2	1.3/2.2	1.3/2.2
5.5. Audio input					
	Analog Audio	Terminal	No	No	No
		Connector type	-	-	-
		Support Signal	-	-	-
	Digital Audio (HDMI)	Terminal	HDMI1, HDMI2	HDMI1, HDMI2	HDMI1, HDMI2
		Support Signal	PCM 2ch 32, 44.1, 48 kHz (16/20/24bit)	PCM 2ch 32, 44.1, 48 kHz (16/20/24bit)	PCM 2ch 32, 44.1, 48 kHz (16/20/24bit)
	Digital Audio (DisplayPort)	Terminal	DisplayPort, USB Type-C	DisplayPort, USB Type-C	DisplayPort, USB Type-C
		Support Signal	PCM 2ch 32, 44.1, 48 kHz (16/20/24bit)	PCM 2ch 32, 44.1, 48 kHz (16/20/24bit)	PCM 2ch 32, 44.1, 48 kHz (16/20/24bit)
	5.6 Support timings (for User's manual)	640 x 480	60Hz (p)	Yes	Yes
		640 x 480	67Hz (p)	No	No
		640 x 480	72Hz (p)	No	No
		640 x 480	75Hz (p)	No	No
		720 x 400	70Hz (p)	Yes	Yes
		720 x 480	60Hz (p)	Yes	Yes
		720 x 480	60Hz (i) HDMI only	Yes	Yes
		720 x 576	50Hz (p)	Yes	Yes
		720 x 576	50Hz (i) HDMI only	Yes	Yes
		800 x 600	56Hz (p)	No	No
		800 x 600	60Hz (p)	Yes	Yes
		800 x 600	72Hz (p)	No	No
		800 x 600	75Hz (p)	No	No
		1024 x 768	60Hz (p)	Yes	Yes
		1024 x 768	70Hz (p)	No	No
		1024 x 768	75Hz (p)	No	No
		1280 x 720	24Hz (p)	Yes	Yes
		1280 x 720	25Hz (p)	Yes	Yes
		1280 x 720	30Hz (p)	Yes	Yes
		1280 x 720	50Hz (p)	Yes	Yes
		1280 x 720	60Hz (p)	Yes	Yes
		1280 x 960	60Hz (p)	No	No
		1280 x 960	75Hz (p)	No	No
		1280 x 1024	60Hz (p)	Yes	Yes
		1280 x 1024	75Hz (p)	Yes	Yes
		1280 x 1440	60Hz (p) for Multi picture	No	No
		1440 x 900	60Hz (p)	Yes	Yes
		1600 x 1200	60Hz (p)	Yes	Yes
		1680 x 1050	60Hz (p)	No	No
		1920 x 1080	24Hz (p)	Yes	Yes
		1920 x 1080	25Hz (p)	Yes	Yes
		1920 x 1080	30Hz (p)	Yes	Yes
		1920 x 1080	50Hz (p)	Yes	Yes
		1920 x 1080	60Hz (p)	Yes	Yes
		1920 x 1080	50Hz (i) HDMI only	Yes	Yes
		1920 x 1080	60Hz (i) HDMI only	Yes	Yes
		1920 x 1200	60Hz (p)	No	No
		1920 x 2160	60Hz (p) for Multi picture	No	No
		2560 x 1440	60Hz (p)	No	No
		3840 x 2160	60Hz (p)	Yes	Yes
		3840 x 2160	30Hz (p)	Yes	Yes
		4096 x 2160	60Hz (p)	Yes(Recommend)	Yes(Recommend)
6. Output signal					
6.1. HDMI output					
	Terminal 1	Terminal name	No	No	No
		Connector type			
		Signal that can be output			
		HDCP			
		Daisy Chain Support			
		Max number of connections w/o HDCP			
	Terminal 1	Max number of connections with HDCP			
6.2. DisplayPort output					
	Terminal 1	Terminal name	No	No	No
		Connector type			
		Signal that can be output			
		DisplayPort Version			
		HDCP			
		Daisy Chain Support			
		Max number of connections in MST, w/o HDCP			
		Max number of connections in MST, with HDCP			
		Max number of connections in SST, w/o HDCP			
		Max number of connections in SST, with HDCP			
6.3. Audio output					
	Terminal 1	Terminal name	HEAD PHONE OUT	HEAD PHONE OUT	HEAD PHONE OUT
		Connector type	Stereo Mini Jack	Stereo Mini Jack	Stereo Mini Jack
		Analog/Digital	Analog	Analog	Analog
		Signal	Stereo L/R	Stereo L/R	Stereo L/R
6.4. Speaker					
	Integrated Speaker	Support	Yes	Yes	Yes
		Spec	Stereo 1W + 1W	Stereo 1W + 1W	Stereo 1W + 1W
	Option Speaker	Support	No	No	No
		Spec	Not support	Not support	Not support
7. Function					
7.1. User Interface					
	Multi-lingual OSD	Support	Yes	Yes	Yes
		Languages	English	English	English
			German	German	German
			French	French	French
			Italian	Italian	Italian
			Spanish	Spanish	Spanish
			Swedish	Swedish	Swedish
			Russian	Russian	Russian

		Rev.1.1	Rev.1.1	Rev.1.1
		PA311D-BK	PA311D-BK	PA311D-BK
1. Destination-Color		A version BK	B version BK	C version BK
		Chinese	Chinese	Chinese
		Japanese	Japanese	Japanese
	Number of support languages	9	9	9
Control key	Support	Yes, Integrated	Yes, Integrated	Yes, Integrated
	Button Type	Touch key(Capacitive)	Touch key(Capacitive)	Touch key(Capacitive)
	Buttons	Key1 (Menu)	Key1 (Menu)	Key1 (Menu)
		Key2 (Pic.L)	Key2 (Pic.L)	Key2 (Pic.L)
		Key3 (Lumi)	Key3 (Lumi)	Key3 (Lumi)
		Key4 (Volume)	Key4 (Volume)	Key4 (Volume)
		Key5 (Multi.P/Mute)	Key5 (Multi.P/Mute)	Key5 (Multi.P/Mute)
		Key6 (Input)	Key6 (Input)	Key6 (Input)
		Key7 (USB)	Key7 (USB)	Key7 (USB)
		Key8 (Power)	Key8 (Power)	Key8 (Power)
	Number of buttons	8	8	8
IR Remote control	Support	No	No	No
7.2. Connectivity with external equipment				
USB hub	Support	Yes, Integrated	Yes, Integrated	Yes, Integrated
	Version	3.1 Gen1(SuperSpeed USB)	3.1 Gen1(SuperSpeed USB)	3.1 Gen1(SuperSpeed USB)
USB - Connect to storage device	Support	Yes	Yes	Yes
	USB Version	2.0(Hi-Speed USB)	2.0(Hi-Speed USB)	2.0(Hi-Speed USB)
USB - Display Control by PC	Support	Yes	Yes	Yes
	USB Version	2.0(Hi-Speed USB)	2.0(Hi-Speed USB)	2.0(Hi-Speed USB)
USB Power Delivery	Support	Yes	Yes	Yes
	Power Delivery Revision	3.0	3.0	3.0
	Power Delivery Alternative Mode	DisplayPort support	DisplayPort support	DisplayPort support
SD / microSD	SD card support	No	No	No
	SDHC card support	No	No	No
	SDXC card support	No	No	No
	microSD card support	No	No	No
	microSDHC card support	No	No	No
	microSDXC card support	No	No	No
RS-232C	Input	No	No	No
	Daisy chain	No	No	No
LAN	10 BASE-T support	Yes	Yes	Yes
	100 BASE-TX support	Yes	Yes	Yes
	1000 BASE-T support	No	No	No
	Support protocol	Not support	Not support	Not support
Wired Remote (mini pin jack)	Input (Gray connector)	No	No	No
	Output (Black connector)	No	No	No
Microphone	Support	No	No	No
Headphone	Support	Yes	Yes	Yes
ControlSync®	ControlSync input (Gray connector)	No	No	No
	ControlSync output (Black connector)	No	No	No
	Slave monitors qty.(Max.)	No	No	No
Plug and Play	Support by VESA DDC2Bi	-	-	-
	Support by DDC/CI	Yes(only NDS application)	Yes(only NDS application)	Yes(only NDS application)
	Support by DisplayPort	Yes	Yes	Yes
7.3. Picture control				
Color control	Support	Yes	Yes	Yes
SpectraView Engine	Support	Yes	Yes	Yes
	Generation	5.2	5.2	5.2
Local dimming	Support	No	No	No
	Switch ON/OFF	No	No	No
	Number of partitions, Horizontal			
	Number of partitions, Vertical			
	Total number of Control Blocks			
Picture Mode	Support	Yes	Yes	Yes
	Available modes	sRGB	sRGB	sRGB
		AdobeRGB	AdobeRGB	AdobeRGB
		eciRGB_v2	eciRGB_v2	eciRGB_v2
		DCI-P3	DCI-P3	DCI-P3
		Rec.709	Rec.709	Rec.709
		Rec.2100(HLG)	Rec.2100(HLG)	Rec.2100(HLG)
		Rec.2100(PQ)	Rec.2100(PQ)	Rec.2100(PQ)
		High Bright	High Bright	High Bright
		Low Blue	Low Blue	Low Blue
		Full	Full	Full
		DICOM	DICOM	DICOM
		Programmable	Programmable	Programmable
		Selectable	Selectable	Selectable
		Selectable	Selectable	Selectable
		Selectable	Selectable	Selectable
		n/a	n/a	n/a

			PA311D-BK	PA311D-BK	PA311D-BK	
			A version BK	B version BK	C version BK	
1. Destination-Color	AC POWER CORD (EU type)	Color	Black	-	-	
			No	Yes	No	
		Length	-	1.8m	-	
	AC POWER CORD (Ch type)	Color	-	Black	-	
			No	No	Yes	
		Length	-	-	1.8m	
	AC POWER CORD (JP type)	Color	-	-	Black	
			No	No	No	
		Length	-	-	-	
	AC POWER CORD (UK type)	Color	-	-	-	
			No	Yes	No	
		Length	-	2.0m	-	
	AC POWER CORD (Au type)	Color	-	Black	-	
			No	No	No	
		Length	-	-	-	
			-	-	-	
8.2. Accessory						
	Remote Control Unit		No	No	No	
		AA Battery x2	-	-	-	
		AAA Battery x2	-	-	-	
	VGA - VGA cable		No	No	No	
		Length	-	-	-	
		Color	-	-	-	
	VGA - DVI-A cable		No	No	No	
		Length	-	-	-	
		Color	-	-	-	
	DVI-D - DVI-D cable		No	No	No	
		Length	n/a	n/a	n/a	
		Color	n/a	n/a	n/a	
	DisplayPort to DisplayPort cable		Yes	Yes	Yes	
		Length	1.8m	1.8m	1.8m	
		Color	Black	Black	Black	
	DisplayPort mini to DisplayPort cable		Yes	Yes	Yes	
		Length	2.0m	2.0m	2.0m	
		Color	Black	Black	Black	
	HDMI to HDMI cable		No	No	No	
		Length	-	-	-	
		Color	-	-	-	
	USB-A to USB-B cable		Yes(Ver3.1 Gen1/SuperSpeed USB)	Yes(Ver3.1 Gen1/SuperSpeed USB)	Yes(Ver3.1 Gen1/SuperSpeed USB)	
		Length	1.8m	1.8m	1.8m	
		Color	Black	Black	Black	
	USB-C to USB-C cable		No	No	No	
		Length	-	-	-	
		Color	-	-	-	
	Audio cable(ϕ 3.5mm stereo mini plug)		No	No	No	
		Length	-	-	-	
		Color	-	-	-	
	ControlSync cable(ϕ 2.5mm stereo micro plug)		No	No	No	
		Length	-	-	-	
		Color	-	-	-	
	Stand base		No	No	No	
		Color	-	-	-	
		Color	No	No	No	
	Stand Neck		No	No	No	
		Color	-	-	-	
		Color	No	No	No	
	Cable holder		No	No	No	
		Color	-	-	-	
		Color	-	-	-	
	VESA plate(Bracket)		No	No	No	
		Plate Color	-	-	-	
		Screw quantity	No	No	No	
	Cap for DPout (Attached to monitor)	Screw Color	n/a	n/a	n/a	
		Color	No	No	No	
		Color	Yes	Yes	Yes	
	Cap for USB host (Attached to monitor)		No	No	No	
		Clamper and Screw	No	No	No	
		Number of Clamper & Screw	n/a	n/a	n/a	
	Fixture	Wall mount screw with washer	Yes	Yes	Yes	
		Size of Wall mount screw & washer	M4	M4	M4	
		Color of Wall mount screw & washer	Black	Black	Black	
Number of Wall mount screw & washer		4pcs	4pcs	4pcs		
8.3. Attached document						
	CD-ROM (Software & Documentation)		No	No	No	
		Paper Manual		No	No	No
		Paper Manual Full (A ver)		No	No	No
	Paper Manual	Paper Manual Full (B ver)		No	No	No
		Paper Manual Full (JAPAN)		No	No	No
		Paper Manual Full (W ver)		No	No	No
	Paper Manual 1sheet type (Taiwan, Korea) (W ver)	Paper Manual Full (RU, BY, KZ) (W ver)		No	No	No
		Setup Manual (1st)	Yes	Yes	Yes	
		Setup Manual (2nd)	No	No	No	
	Setup Manual	Setup Manual (3rd)	No	No	No	
		Contents sheet (1st)	Yes	Yes	Yes	
		Contents sheet (2nd)	No	No	No	
	Contents sheet	Addendum sheet (1st)	No	No	No	
		Addendum sheet (2nd)	No	No	No	
		California Proposition sheet	Yes	No	No	
	Setting info sheet		No	No	No	
		Warranty Card		No	Yes	
		Warranty Card (Japan)	No	No	No	
	NaViSet Administrator 2 flyer		No	Yes	No	
		EEI label and EEI SHEET	No	Yes	No	
		WEEE sheet	No	No	No	
	CEL Sheet		No	No	No	
		Factory Calibration and Verification Report	Yes	Yes	Yes	
		Addendum sheet for head angle limitation	No	No	No	
	Sheet for USB setting		No	No	No	
		EnergyStar 8.0 sheet	No	No	No	
	9. Regulation					
	9.1. Safety					
		UL/C-UL (US/Canada)		Yes	Yes	Yes
			TUV-GS	Yes	Yes	Yes
			ProdSG(Germany)	No	Yes	No
		CB Report		Yes	Yes	Yes
PSB (Singapore)			Yes	Yes	Yes	
NOM (Mexico)			Yes	Yes	Yes	
Rating label			2.4A	2.4A	2.4A	
			No	No	No	
			No	No	No	
IRAM or TUV Argentina S (Argentina)			No	No	No	
		India BIS	No	No	No	
		SASO (Saudi Arabia)	-	-	-	
9.2. Safety+EMC						
		CE Marking (EU)		Yes	Yes	Yes
	CCC (China)		No	No	Yes	
	EAC (Russia)		Yes	Yes	Yes	
	BSMI (Taiwan)		No	No	No	
		KC (Korea)	No	No	No	
		MSIP (Korea)	No	No	No	
	S-TUV or S-JQA (Japan)		No	No	No	
		電安法/PSE Japan safety (Japan)	No	No	No	
	9.3. EMC					
	FCC/ICES-003 (US/Canada)		Yes	Yes	Yes	
		FCC/BETS7 (US/Canada, for TV)	n/a	n/a	n/a	
		RCM (Australia/New Zealand)	Yes	Yes	Yes	
	VCCI (Japan)		No	No	No	
		電源高調波 JIS C61000-3-2 (Japan)	No	No	No	
		JEIDA静電気がイドライン (Japan)	No	No	No	
	JEIDA低周波がイドライン (Japan)		No	No	No	
		JEITA IT-3001A (Immunity) (Japan)	No	No	No	
	9.4. Ergonomics					
	TUV-Ergonomics (Germany)		Yes	Yes	Yes	
		ISO9241-307	Yes	Yes	Yes	
		Pixel-failure class	2	2	2	
	Reflection class (pos./neg.)		-	-	-	
		TCO Certified Displays (Sweden)	No	No	No	
		TCO Certified Edge Displays (Sweden)	No	No	No	
	JEITAドット抜けがイドライン (Japan)		No	No	No	

		PA311D-BK	PA311D-BK	PA311D-BK
1. Destination-Color		A version BK	B version BK	C version BK
	TUV Flicker Free	Yes	Yes	Yes
	Back light control	PWM control	PWM control	PWM control
	TUV Low Blue light	Yes	Yes	Yes
	Low Blue Light(Reduction ratio)	-	-	-
TUV Color Accuracy		Yes	Yes	Yes
9.5. Environmental				
	U.S. Mercury regulations	n/a	n/a	n/a
	EPEAT	No	No	No
	SB50 (US California)	Yes	Yes	Yes
	Batteries Directive 2006/66/EC (EU)	No	No	No
	WEEE(EU)	Yes	Yes	Yes
	India E-waste	No	No	No
	ErP Lot 5 (TV, TV monitor) (EU)	No	No	No
	ErP Lot 7 (External Power supply)	No	No	No
	ErP Lot 6 (EU)	Yes	Yes	Yes
	ErP Lot 26 (EU)	Yes	Yes	Yes
	ECMA-370(EU)	Yes	Yes	Yes
	REACH	Yes	Yes	Yes
	RoHS(EU)	Yes	Yes	Yes
	Chinese-RoHS	No	No	Yes
	Turkish-RoHS	Yes	Yes	Yes
	Ukrainian RoHS	Yes	Yes	Yes
	グリーン購入法 (Japan)	No	No	No
	エコマーク (Japan)	No	No	No
	PCグリーンラベル (Japan)	No	No	No
	JEITA VOCガイドライン (Japan)	No	No	No
	JIS-C-0950 J-Moss (Japan)			
	PCリサイクル法 (Japan)	No	No	No
	容器包装リサイクル法/段ボールリサイクル協議会マーク (Japan)	No	No	No
	Containers and Packing Recycling Law (China)	No	No	No
	Containers and Packing Recycling Law (Russia)	Yes	Yes	Yes
	Containers and Packing Recycling Law (Korea)	No	No	No
	Der Grüne Punkt (Germany)	Yes	Yes	Yes
	NECエコシボル	Yes	Yes	Yes
	EPREL(EU)	Yes	Yes	Yes
	Ambient illumination sensor	Yes	Yes	Yes
	Default setting value of illumination sensor	Off (Disable)	Off (Disable)	Off (Disable)
	Backlight brightness value in dark ambient room.	5%	5%	5%
	Total Harmonic Distortion	< 2% THD	< 2% THD	< 2% THD
9.6. Other Regulation				
Δ1.1	Energy Star (US)	No	No	No
	Energy Star (EU)	No	No	No
	Energy Star (JP)	No	No	No
	E-Standby (Korea)	No	No	No
	EEL label (EU)	No	Yes	No
	Class	D		
	On mode power consumption	-	79W	-
	Annual on mode power consumption	-	116kWh/annum	-
	Reference period	-		-
	MEPS (Australia)	No	No	No
	Star rating	n/a	n/a	n/a
	CEC(kWh per year)	n/a	n/a	n/a
	CEL Energy efficiency regulation (China)	No	No	Yes
	Class			2
	能源效率			1.0
	Sleep			1.2
	Off			0.5
	产品类型			高性能显示器
	CECP (China)	No	No	Yes
	IEC62087	Yes	Yes	Yes
9.7. Medical Regulation				
	TUV-GM(Germany)	No	No	No
	CE-MDD (EU)	No	No	No
	EN14971:2012 Risk Management Plan (EU)	No	No	No
	MDD Annex I (Essential Requirement) (EU)	No	No	No
	IEC62563-1 (EU)	No	No	No
	FDA-510K (US)	No	No	No
	AAPM-TG18 (US)	No	No	No
	DIN 6868-157 (Germany) Category I or II :	No	No	No
	EN60601-1-2 section 2	No	No	No
	EN62304:2006 (医療機器ソフトウェア)	No	No	No
	EN62366:2008 (ユーザビリティ)	No	No	No
9.8. Logo				
	Windows 7	No	No	No
	Windows 8	No	No	No
	Windows 10	No	No	No
	HDMI	Yes	Yes	Yes
	DisplayPort	Yes	Yes	Yes
	USB-IF	No	No	No
	DisplayPort Alternate Mode	Yes	Yes	Yes
9.9. European Recycling				
	G2 Category			
	Carton Box TOP (Material)	Paper	Paper	Paper
	Carton Box TOP (Weight)	2720g	2720g	2720g
	Carton Box MIDDLE (Material)	-	-	-
	Carton Box MIDDLE (Weight)	-	-	-
	Carton Box BTM (Material)	-	-	-
	Carton Box BTM (Weight)	-	-	-
	Carton Others (Material)	-	-	-
	Carton Others (Weight)	-	-	-
	G2 Total Weight	2720g	2720g	2720g
	G5 Category			
	Plastic Inlays (Material)	EPS	EPS	EPS
	Plastic Inlays (Weight)	400g	400g	400g
	Plastic Inlays (Material)	EPE	EPE	EPE
	Plastic Inlays (Weight)	792g	792g	792g
	Monitor bag (Material)	PE	PE	PE
	Monitor bag (Weight)	65g	65g	65g
	Power Cable bag (Material)	PE	PE	PE
	Power Cable bag (Weight)	10g	10g	10g
	Signal Cable bag (Material)	PE	PE	PE
	Signal Cable bag (Weight)	15g	15g	15g
	Manual bag (Material)	PE	PE	PE
	Manual bag (Weight)	10g	10g	10g
	Joint (Material)	-	-	-
	Joint (Weight)	-	-	-
	other foil / bag (Material)	PE	PE	PE
	other foil / bag (Weight)	305g	305g	305g
	G5 Total Weight	1597g	1597g	1597g
	Total G2 + G5 Weight	4317g	4317g	4317g
	Percentage of separatable material for recycling (%)	-	-	-
10. Option compatibility				
10.9. Software adaptation				
	NaViset Administrator 2	Yes	Yes	Yes
	Multi Profiler	Yes	Yes	Yes
	GammaComp MD QA	No	No	No
	Spectra View II	Yes	Yes	Yes
9.10. Hood				
	HD2PA2427	No	No	No
	LCD-HDPA27	No	No	No
	HD2PA31	Yes	Yes	Yes
9.11. Other				
		n/a	n/a	n/a
11. Selling Point				
	Tiltable stand	Yes	Yes	Yes
	Swivelable stand	Yes	Yes	Yes
	Height adjustable stand	Yes	Yes	Yes
	Pivotable stand	No	No	No
	VESA Mount	Yes	Yes	Yes
	Lower position stand mounting holes	No	No	No
	Detachable base	No	No	No

[illegible]