

Product Description :

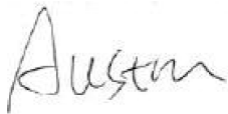
S420HW62 V0 42" Bar PID Display Product (Without Tuner)

DARWIN Model Name : **S420HW62 V0**

Customer Part No. / Project Name :

Darwin

Approved by : PM Head



Reviewed by : Project Member

PM : Jimson

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Power : Patrick

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PA : Jim

Reviewed by : HW Manager

Reviewed by : OM Manager

Reviewed by : PA Manager

Reviewed by : PSU Manager

Reviewed by : SW Manager

Prepared by :

Jimson/Frank



Note

Product Specification Sheet

S420HW62 V0 42.0" BAR PID Display Product

Model Name: S420HW62 V0
DARWIN P/N: 99.42S1A.0AJ-B13

() Preliminary Specification
(*) Final Specification

Contents

No	
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Record of Revision

Version	Data	Page.	Old Description	New Description	Remark
0.0	2017/03/31	--	---	1 st release	
0.1	2017/04/13				
0.2	2017/04/18				
0.3	2017/04/19				
0.4	2017/04/21				
0.5	2017/04/24				
0.6	2017/04/27				
0.7	2017/05/12				
0.8	2017/06/13	Page 13	システム情報：モデル名 - NTP480	システム情報：モデル名 - NIPPON480	
		Page 25	Warranty _ AD Board : 3 年 TBC Warranty _ Driver Board : 5 年 TBC	Warranty_ AD Board & Driver Board: New design goods without the MTBF data and PPM data.	
0.9	2017/06/22	Page 7	Old AD Boar Picture	New AD Boar Picture	
		Page 11		Update User Main Menu Function (映像：バックライト - 輝度調整はこの項目で行う)	
1.0	2017/06/29	Page 13	システム情報 without Thermal sensor Inf.	システム情報 with Thermal sensor Inf. (1st Version)	
1.1	2017/06/30	Page 13	システム情報 with Thermal Censor Inf. (1st Version)	システム情報 with Thermal Censor Inf. (Final Version)	
		Page 22	Shipping Label	Shipping Label and PSE Mark Label : Combine (2 in 1)	
1.2	2017/07/10	Page 2	(*) Preliminary Specification	(*) Final Specification	
		Page 6	2.4 H/W Spec	2.4 H/W Spec with Exactly Typical / Max	
		Page 22	11.2 LABEL Rating Label	11.2 LABEL Rating Label with New Clear Picture	
1.3	2017/07/14	Page 23	Carton Label :Darwin Standard Type	Carton Label with Exactly QTY、Model Name、Parts No.	
1.4	2017/08/10	Page 6, 14, 17, 18	Standby Power Consumption Max 0.5W	Standby power consumption max: 6.0W	
		Page 17	9.2 Reliability	Add remark- Refer to the RA Test Report	
		Page 20	Rating Label 貼附處	Rating Label Paste area	
		Page 21	充氣袋	Air Bag	
		Page 25	Warranty AD Board & Driver Board : New design goods without the MTBF data and PPM data.	Warranty AD Board : 50,000hr Driver Board : 50,000hr	
1.5	2017/10/03	Page 6, 14, 17, 18	Standby Power Consumption Max 6.0W	Standby power consumption max: 8.5W	

I. Application Range

This specification sheet is applied to all of the Public Information Display with ODM by Darwin Corporation.

Model Name	Customer	Marketplace	Panel	Chassis	Remark
S420HW62 V0	JPN	JPN	AUO/Mask	Metal NCT	

2. General Specification

42 FHD is a Color Active Matrix Liquid Crystal Display composed of a TFT-LCD display, a driver circuit, and a backlight system. The screen format is intended to support FHD-(1920(H) x 480(V)) screen and 16.7 M colors (8-bits).

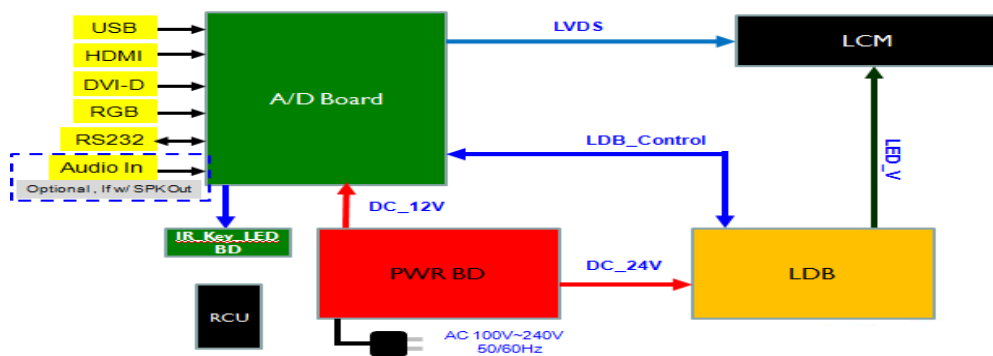
2.1 Key Feature:

- (1) AUO -P42 - Mask open cell
- (2) AUO- AMVA3 Technology
- (3) Direct LED with D4 lens LCM
- (4) Anti Image Retention
- (5) Extruded aluminum back bezel +SECC rear chassis

2.2 Appearance:



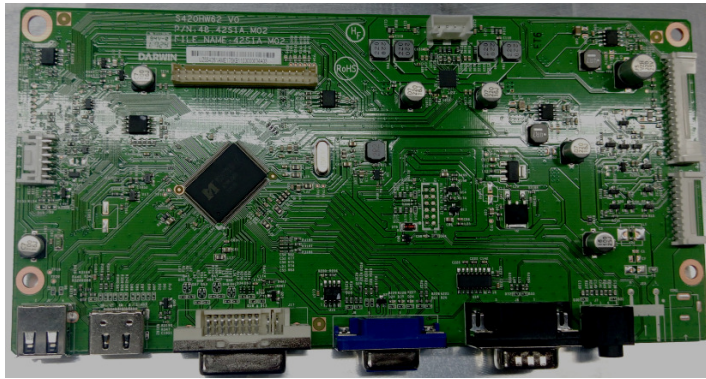
2.3 Power Block diagram:



2.4 H/W spec:

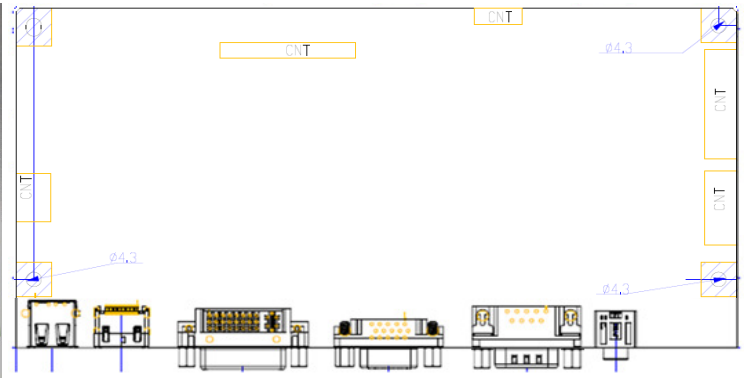
LCM	LCD	AUO - P420IVN01.0
	Size	42" (47inch 2/5)
	LCD Technology	AMVA3
	Back Light Type	Direct LED -D4
	Module Size	1060.08 * 283.32 * 27.2 mm
	Active Area	1039.68*259.92
	Aspect ratio	16:4
	View angle	89/89/89/89
	Brightness	Typical: 500nits
	Pitch (mm)	0.5415*0.5415 mm
	Pixel	1920*480
	Contract Ratio (Center)	Typical: 3500
	Response time (G to G)	Typical: 8 ms
	Color	8bit, 16.7M
	Color Mode	Normally Black
	Weight	5.1KG
Enclosure	Material	AL6062+SECC
	Body Color	Front chassis : Black, Rear chassis: Black
	Outline Size	1135(±1.0) * 315(±1.0) * 63 (±1.5) mm
Product Spec	Power	AC 90-264V(50/60 Hz)
	Operation Temperature	0~60℃
	Storage Temperature	-20~60℃
	Operation Humidity	10~90%
	Storage Humidity	10~90%
	Weight	Typ:10.7KG /Set ; 13.5KG/With Box
	Power Consumption	Typ: 40W, Max: 45W (at AC 100V); (LED:Green)
	Stand By Power Consumption	Max:8.5 W/AC240V ; (LED:Red)
	Scanning Frequency	Horizontal Frequency : 67.50kHz / 31.50kHz
		Vertical Frequency: 60.00Hz
	External Interface	USB 4pin-F / HDMI 19pin-F / DVI 24pin-F RGB 15pin-F / RS232 9pin-F / Audio in 1pin-F
	Max Input Current	0.45A/AC 100 V
Accessories	No.1	Remote Control
	No.2	Battery
	No.3	AC Power Cable
	No.4	DVI Cable

2.5 AD board spec:



PCBA size: 205 mm x 100 mm

PCBA weight : 117 g



USB (4pin)-F	HDMI In (19pin)-F	DVI-D In (24pin) -F	D-SUB RGB in (15pin) -F	RS-232 (9 pin) - F	Audio in (1 pin)-F
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Main Chips		Scalar	MSD8220LBP
Marker Area			World Wide
OSD Language			English
Panel Interface			Dual / Single & 8/10 Bits LVDS Interface
			Maximum Resolution : 1920 x 1080
	PC RGB		Video Level : 0.7Vp-p
			Sync Type : Separate Sync , TTL Level
			Maximum input resolution : 1920 x 1080 60Hz
			15pin-F
	DVI-D		DVI 1.0
			Maximum input resolution : 1920 x 1080 60Hz
			HDCP 1.2
			24pin - F
	HDMI		HDMI 1.4
			Maximum input resolution : 1080P 60Hz
			HDCP 1.2
			19 pin -F
RS232			Yes (DSUB- 9 pin-F)
Audio IN			NA (1pin – F)
USB			USB 2.0 for FW upgrade
Speaker Out			NA
OSD Interface			Yes
Remote Interface			Yes
Comb Filter			N/A , No CVBS Input
Deinterlace			3D
Noise Reduction			3D MPEG
USB Playback Foamt			NA
Power	Require		DC In : 12V In
	To Panel		12V

2.6 RS232C Control:

Pin NO.	Function	Pin NO.	Function	Pin NO.	Function
1	NC	4	NC	7	NC
2	TX	5	GND	8	NC
3	RX	6	NC	9	NC

3. Test Method

3.1 Performance: Display test-method follows Darwin Public Information Display test items or Customer's spec

3.2 Demanded other specification

Model	Market	Appliance	Compliance
S420HW62 V0	JPN	Safety: PSE	Safety: J60950-1(H27)

4. Features and functions

No	Item	EA	Specification	Remark
1	Feature	AC power input	I AC 90-264V(50/60 Hz)	
		Audio input	I PC Audio in	Bottom(3.5Φ Jack type)
		RGB Input	I Analog PC In(DSUB-15F)	Bottom
		RS232 input	I RS232/UART input control(DSUB9-F)	Bottom
		DVI	I DVI	Bottom
		HDMI input	I HDMI	Bottom
		USB	I FW upgrade	Bottom
		LED Indicator	Power on: green Standby : Red	Front
		IR Receiver	NA	Front
2	RCU Key	POWER	Power ON/OFF	
		INPUT	Input Signal Select	
		1	DIGI Key 1	No Function
		2	DIGI Key 2	No Function
		3	DIGI Key 3	No Function
		4	DIGI Key 4	No Function
		5	DIGI Key 5	No Function
		6	DIGI Key 6	No Function
		7	DIGI Key 7	No Function
		8	DIGI Key 8	No Function
		9	DIGI Key 9	No Function

RECALL	Recall	No Function
0	DIGI Key 0	No Function
ENTER	Enter Key	
PICTURE	Picture style selection	
Music		No function
Aspect	Aspect ratio selection	
FREEZE		No function
Volume up		No function
Volume down		No function
INFOR	Show INFO OSD	
MUTE		No function
Channel up	Input source Up Scroll	
Channel down	Input source Down Scroll	
FAV		No function
SLEEP		No function
Surround Sound		No function
SOUND TYPE		No function
▲	Select Up	
▼	Select Down	
>	Select Right & value +	
<	Select Left & value +	
OK	Enter key	
MENU	Display the menu	
BACK	Return	
RED		No function
GREEN		No function
YELLOW		No function
BLUE		No function
SUBTITLE		No function
Pause		No function
Stop		No function
Play		No function
Previous		No function
Next		No function
Back		No function
Backward		No function
Forward		No function

DARWIN

Remote controller (49.42S33.001)



User Main Menu function

Layer 1	Layer 2	Layer 3	Layer 4	Default Value		
				HDMI	DVI-D	VGA
映像	画像モード	画像スタイル	スタンダード/ ダイナミック/ シネマ/ カスタム			
		コントラスト	0~100 0~100	Dynamic		Dynamic
		ブライトネス	0~100 0~100	80		80
		シャープネス	0~10 0~10	50		50
		色合い	色合い	0~50 0~50	6	
			レッド 色相	-16~16	21	
			マゼンダ 色相	-16~16	21	
			ブルー 色相	-16~16	0	
			シアン 色相	-16~16	0	
			グリーン 色相	-16~16	0	
			イエロー 色相	-16~16	0	
		カラー	カラー	0~50 0~50	0	
			レッド 彩度	0~15	35	
			マゼンダ 彩度	0~15	4	
			ブルー 彩度	0~15	0	
			シアン 彩度	0~15	0	
			グリーン 彩度	0~15	2	
			イエロー 彩度	0~15	0	
	バックライト	0~100	輝度調整はこの項目で行う		90	
	色温度	色温度	4900/6500/9300/11500/ カスタム	11500		11500
		R ゲイン	0~2047	1024		1024

			G ゲイン	0~2047		1024	1024	1024	
			B ゲイン	0~2047		1024	1024	1024	
	ガンマ	2.2/ 2.4 / Native.				2.2	2.2	2.2	
	ノイズ リダク ション	オフ/中/強/ 弱				Off	Off	Gray out	
	アダプ ティブ コント ラスト	オン/オフ				On	On	On	
	アスペ クト	フル/ /Dot by Dot				Full	Full	Full	
	色範囲	0~255/16~23 5/自動				Automatic	Automatic	Gray out	
	VGA 設定		水平位置	0~100		Gray out		Gray out, if VGA has no signal.	50
			垂直位置	0~42					34
			クロック	0~100					50
			位相	0~100					80
			自動調整	有効にする/ 無効にする					Enable
			自動				Gray out		
	映像設定をリセット					None			
設定	パワーセーブ	オフ/30 秒/60 秒/90 秒/120 秒/150 秒/180 秒/210 秒 /240 秒/270 秒/300 秒			60sec (Set the timer to power off PID when current source has no signal.)				
	ソフトウェアの更新 (USB)				None (Update the FW by USB. The confirm OSD has YES or NO item. Yes : update the FW. No : exit the confirm OSD.)				
	デフォルト値をリセット				None (Restore the default value.)				
初期設定	メニュー言語	英語/ 日本語			Japanese				
	リモコン操作	有効にする / 無効にする			Enable (In IR lock mode, user can use keypad to enter "Remote Operation" item or use IR to press				

				Menu+Left+Right+Up+Down to unlock IR. In keypad lock mode, user can use IR to enter "keypad operation" item or use keypad to press Menu+Left+Right+Up+Down to unlock keypad. If IR and keypad both are in lock mode, please press Menu+Left+Right+Up+Down to unlock.)
	焼き付き防止	オフ / 画像シフト		Picture shift (Off: No image retention behavior. Picture Shift: Shift 2 pixel per 1 min. The shift behavior is "left -> up-> right -> down -> center".)
システム情報	モデル名	NIPPON 480		
	ソフトウェアバージョン			
	Max 温度		The maximum temperature is recorded since MNT Set turn on until right now	
	Min 温度		The minimum temperature is recorded since MNT Set turn on until right now.	
	平均温度		The average temperature of each 5minutes is recorded in MNT. 60°C→ 70°C : temperature display with WHITE color. Over 70°C (include 70°C) : temperature display with RED color. 70°C→60°C : temperature display with RED color. Under 60°C (include 60°C): temperature display with WHITE color.	

Remark:

-Thermal Sensor Function:

Over 70°C(include 70°C) --- Brightness reduce 50% from the initial setting

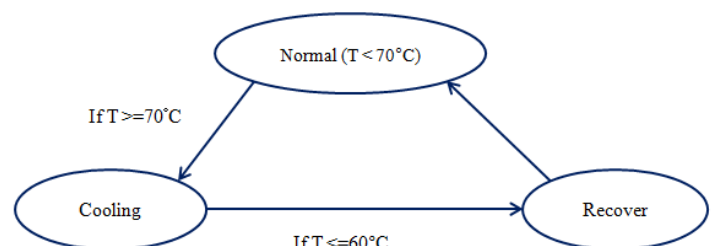
Under 60°C(include 60°C) ---Brightness back to 100% (back to the initial setting)

-Mechanism of Control Flow:

- If average temperature (T) under 70°C, system keep in Normal state.
- If T is over 70°C(include 70°C), system change state Cooling state.
- If system is in Cooling state and T reduce to 60°C(include 60°C), system change state to Recover state.
- If system is in Recover state and backlight back to 100% , system change state to Normal state.

-State behavior description:

- Normal: luminous as OSD backlight setting
- Cooling: luminous reduce 50% from the OSD backlight setting
- Recover: luminous back to 100% (100% means OSD backlight setting)



5. Safety and Regulation

No	Item		Min	Typ	Max	Unit	Remark
1	Force Stability – Incline Plane Tip Test		10			deg	Not applicable,
2	Isolation Gap, AC-AC Primary-GND	420Vpeak (clearance)	2.0			mm	1.Safety distance for components with 2N force for judgment. 2.Pollution degrees 2 3.Reference the IEC60950-1
3	Isolation Gap, Primary-Secondary	420Vpeak (clearance)	4.0			mm	
4	Isolation Gap, Primary ↔ GND	320Vrms(Cree page)	3.2			mm	
		400Vrms(Cree page)	4.0			mm	
	Isolation Gap, Primary ↔ Secondary	320Vrms(Cree page)	6.4			mm	
		400Vrms(Cree page)	8.0			mm	
5	Power Consumption, Max			40	45	W	AC 100V
	Power Consumption, Stand by				8.5	W	
6	Dielectric Voltage	Class I	Primary-PG: 1500 Vac/ min at 10mA 2120 Vdc/ min at 10mA (Eng+MP)				PG = Protective Ground Eng = Engineering stage MP = Mass Production
		Class II	Primary- Secondary: 3000 Vac/min at 10mA 4240 Vdc/ min at 10mA (Eng+MP)				
		Test time	Eng- 1min MP-3sec				
7	Isolation Resistance		2			MΩ	1. Primary to GND/PG 2. L/N polarity directly connected to the mains
			4			MΩ	Primary to Secondary
8	Leakage Current	to Accessible parts and circuits not connected to protective earth b			< 0.25	mA	Measuring network described in IEC 60990 Annex D
		to Equipment main protective earthing terminal			<3.5	mA	
9	Sharp Edge		NA				
10	Compliance	Safety	J60950-1 (H27)				
11	Earth Continuity Test		≤0.1'Ω at 32A / 120s				Class II 、 III models don't need to be tested
12	Wall mount		three times the weight of the equipment but not less than 50 N. /1min				

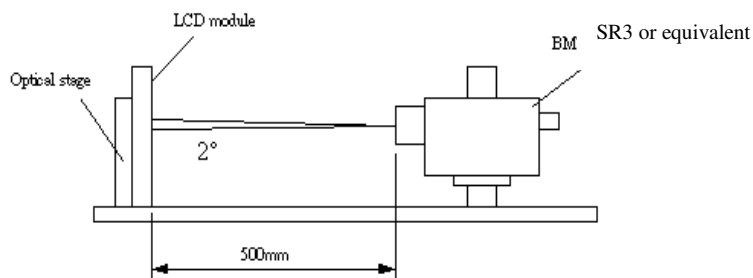
6. Optical Performance (Remark: Picture mode is in “Vivid”)

No	Item			Min	Typ	Max	Unit	Remark
1	White peak brightness(Center)			400	500	550	cd/m²	Based on AC 100V. Module specification *(1)
2	Contrast ratio(Center)				3500			Module specification*(2)
3	DCR (Dynamic Contrast Ratio)				NA			Dimming range 20%~100%
4	Brightness uniformity(9P)				75%			Refer to LCD Specification*(3)
5	Color coordinate	White	X	0.250	0.280	0.310		Module specification*(1)
6			Y	0.260	0.290	0.320		
7		Red	X	0.623	0.653	0.683		
8			Y	0.301	0.331	0.361		
9		Green	X	0.283	0.313	0.343		
10			Y	0.591	0.621	0.651		
11		Blue	X	0.124	0.154	0.184		
12			Y	0.036	0.066	0.096		
13	Viewing angle				89(R/L) 89(U/D)		degree	*(4)
15	Gamut	CG	θ=ψ=0	68%	72%	---	%	Refer Module Specification
16	Gamma	γ	VESA	2.0	2.2	2.4	---	Refer Module Specification

[Note] Definition of these measurement items is as follows:

Optical characteristics are determined after the unit has been ‘ON’ and stable for approximately 45 minutes in a dark environment at 25°C. The values specified are at an approximate distance 50cm from the LCD surface at a viewing angle of ϕ and θ equal to 0°.

- 1) presents additional information concerning the measurement equipment and method.



- 2) Definition of Contrast Ratio

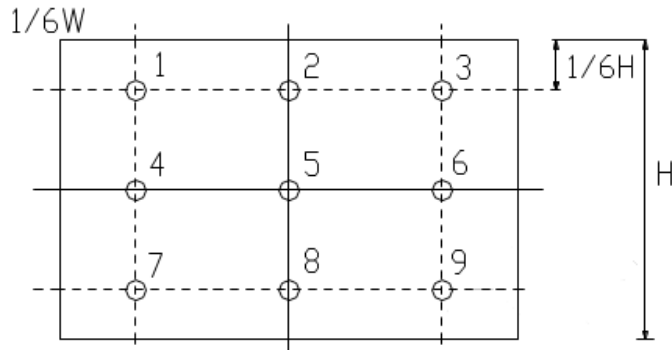
CR=ON (White) Luminance/OFF (Black) Luminance

- 3) Definition of Luminance and Luminance uniformity

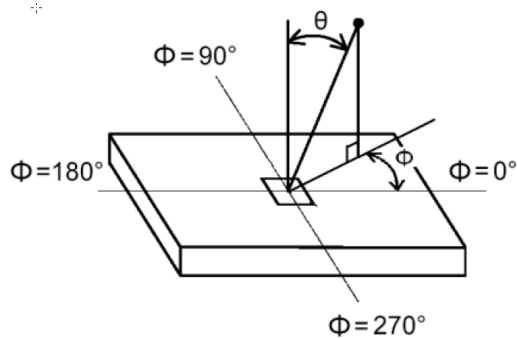
Central luminance: The white luminance is measured at the center position “5” on the screen, see Fig.1 below. And the measure time is 40 min after discharged.

9P Luminance (AVG): The white luminance is measured at measuring points 1 to 9, see Fig.1 below.

9P Uniformity: $\Delta L = (L_{MIN} / L_{MAX}) \times 100\%$



4) Viewing angle:



7. Input Support Timing :

7.1 RGB Input

No	Resolution	H-freq(kHz)	V-freq.(Hz)	Pixel clock(MHz)	Remark
1	1920x1080	67.50	60.00	148.50	
2	1920x480	31.50	60.00	69.30	

7.2 HDMI /DVI Input

No	Resolution	H-freq(kHz)	V-freq.(Hz)	Pixel clock(MHz)	Remark
1	1920x1080	67.50	60.00	148.50	
2	1920x480	31.50	60.00	69.30	

8. Power

8.1. General specification

No	Item	Min	Typ	Max	Unit	Remark
1	AC Power Voltage	90V	100V	264V	V	
2	Max. Input Current (S420HW62 V0)			0.45A	Arms	Based on AC 100V
3	Standby Power	-	-	8.5	W	Based on AC 240V

9. Other specifications

9.1 The others

No	Item	Min	Typ	Max	Unit	Remark
1	Soft Ware Functionality Test	---	---	---	---	Customer's spec/ Darwin Generic Specification
2	REMOCON Working Sensitivity, Straight	---	---	8	m	Front Side
3	REMOCON Working Sensitivity, L/R	---	---	6	m	Front Side L/R: 60 degree U/D:55 degree

9.2 Reliability

No	Item	Min	Typ	Max	Unit	Remark
1	Operation Temperature	0			deg	Check (a)/(b)/(c)
2	Operation Temperature			60	deg	Check (a)/(b)/(c)
3	Operation Temperature/ Humidity			60 90	deg %	Check (a)/(b)
4	Thermal Shock Test	-20		60	°C	Check (a)/(b)/(c)
5	Packing vibration					Check (a)/(b)/(c)
6	Packing drop					Check (a)/(b)/(c)
7	Momentary Power Interruption Test (瞬間停止試験)					Customer's spec
8	(Line Noise Test)					Customer's spec
9	ESD(EN61000-4-2)	2		8	kV	Customer's spec

Check Criteria Note :

- a) Non-lighting and unstable lighting should not be happened.
- b) No damage or open of wire.
- c) No mechanical and physical damage of backlight.

Remark: Regarding to the test result, please refer to the Reliability Test Report.

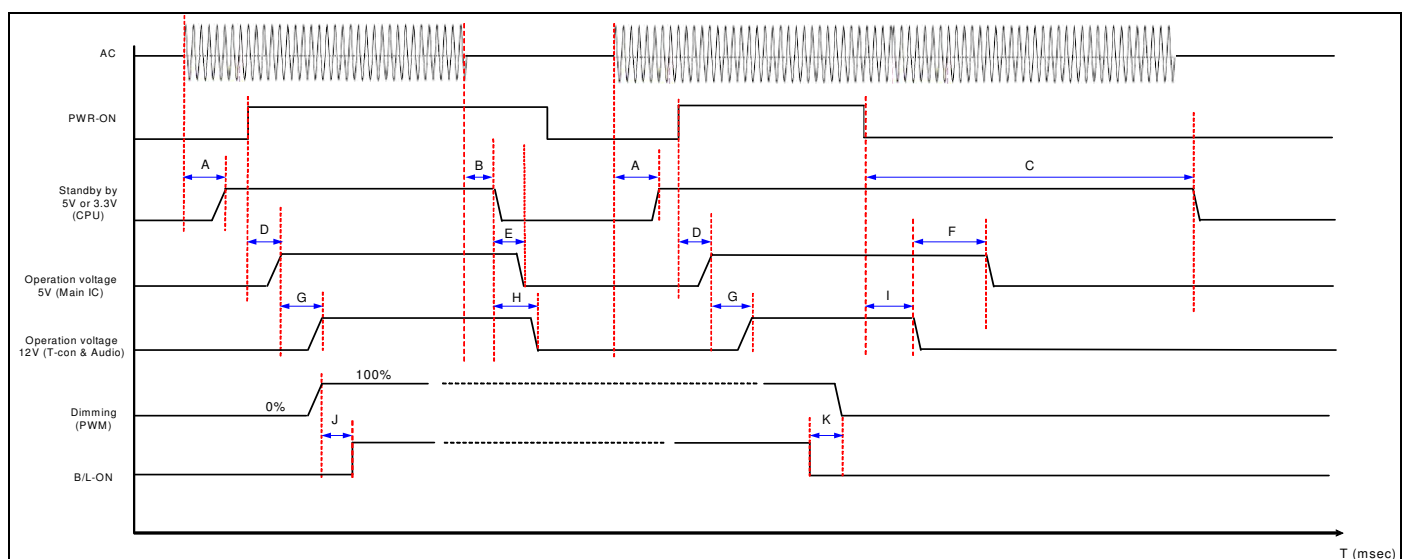
9.3 LED indicator & power consumption

No	Item	Min	Typ	Max	Unit	LED status	Remark
1	Stand by power	---	---	8.5	W	Red Color	---
2	DPMS	---	---	---	W	Red Color	PC Signal Lose with OSD
3	Normal Operation (S420HW62 V0)		40		W	Green Color	Based on AC 100V

9.4 Power Sequence

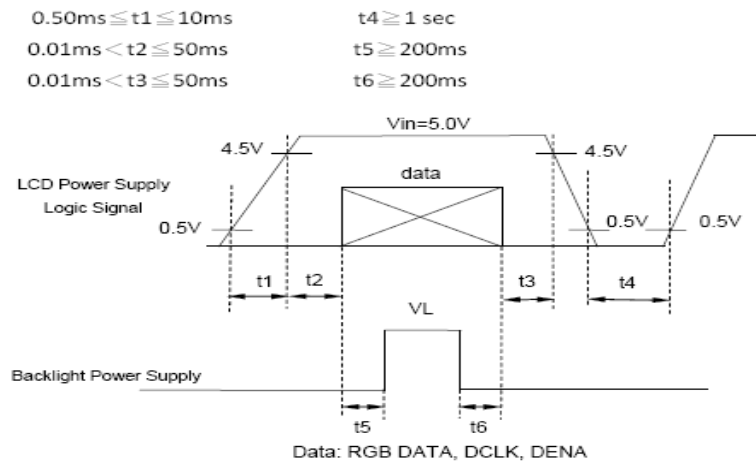
9.4.1. Power on & Power off

No	Item	Min	Typ	Max	Unit	Remark
1	A			2000	ms	
2	B	10			ms	
3	C				ms	
4	D	---	---	---	ms	
5	E	---	---	---	ms	
6	F	---	---	---	ms	
7	G	20			ms	
8	H	10			ms	
9	I	10			ms	
10	J	300			ms	
11	K	10			ms	



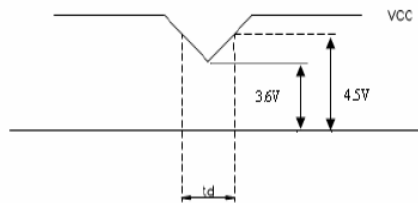
9.4.2. Power sequence for Panel

CLAA420PF01XN_V0.3



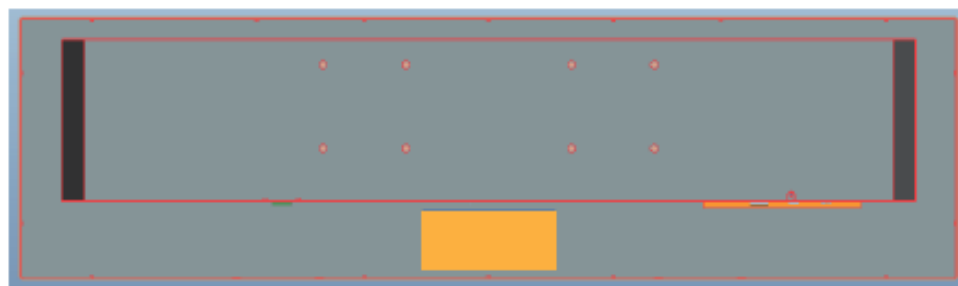
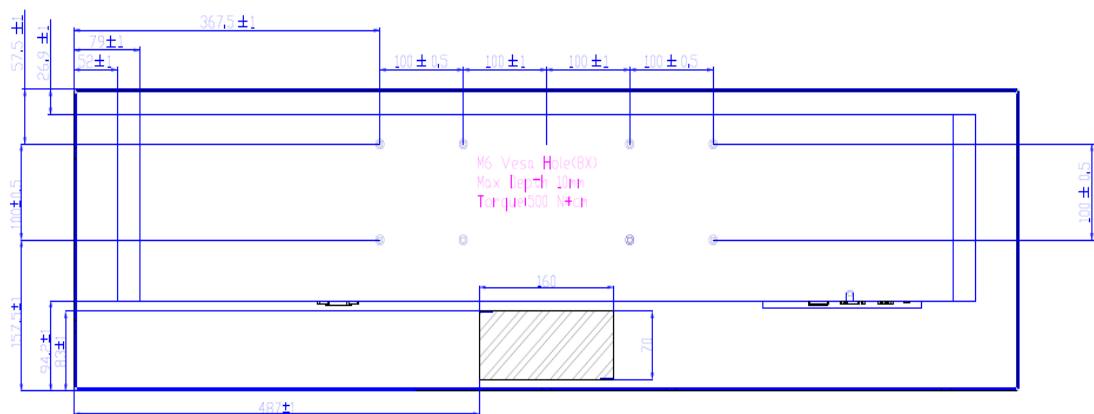
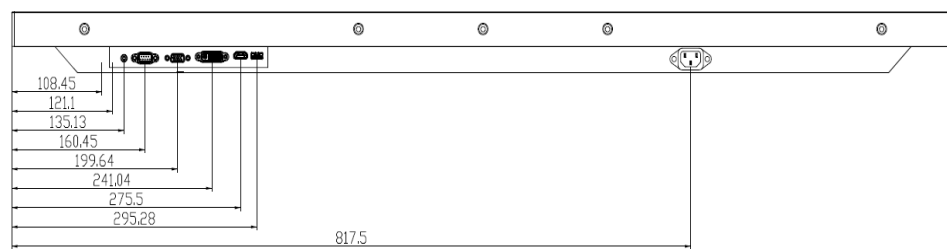
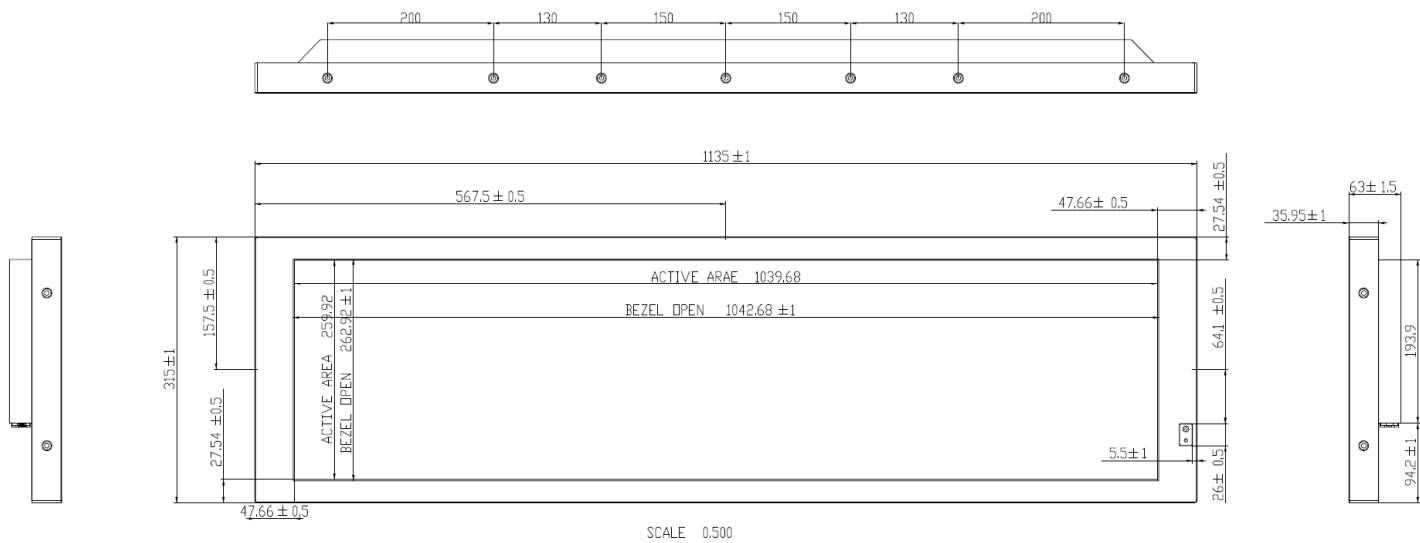
VCC-dip conditions:

- (1) When $3.6\text{V} \leq V_{\text{CC}}(\text{min}) < 4.5\text{V}$: $t_d \leq 10 \text{ ms}$
- (2) When $V_{\text{CC}} < 3.6 \text{ V}$, VCC-dip conditions should also follow the VCC-turn-on conditions.



10. Mechanical Specification

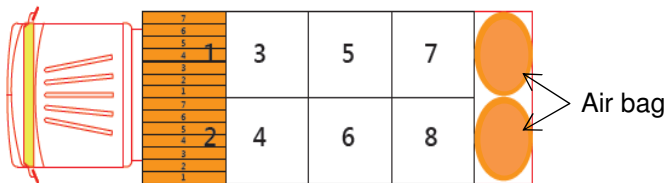
10.1. Six Side Drawing



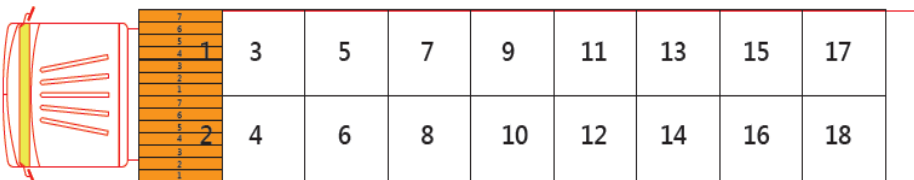
 Rating Label | Paste area

10.2. Packing spec:

	Item	Content				Remark	
1	Product Dimension		Width	Length	Height	Unit	
		Before Packing	63	1135	315	mm	Set with Handle
		After Packing	162	1240	437	mm	Set with Handle
		Only Set	10.7			Kg	Set with Handle
		With BOX	13.5			Kg	Set with Handle
2	Container Loading	Individual or	20 ft	40 ft	40ft(HQ)		7 ctns [1ctns/1set] / layer * 3 layer / Pallet (weight 308.5kg)
		Palletizing	168	378	378		



Container loading	Pallet Q'ty	Stack	Total Q'ty
20' DC container	8 Pallets	7 ctns/layer * 3 layers/pallet	168 pcs
40' DC container	18 Pallets	7 ctns/layer * 3 layers/pallet	378 pcs
40' HQ container	18 Pallets	7 ctns/layer * 3 layers/pallet	378 pcs

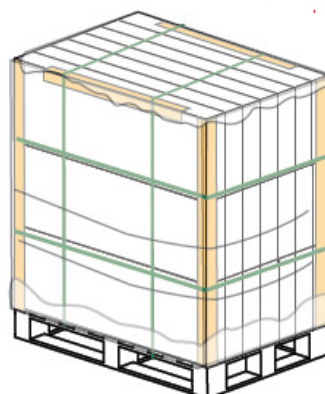


Note:

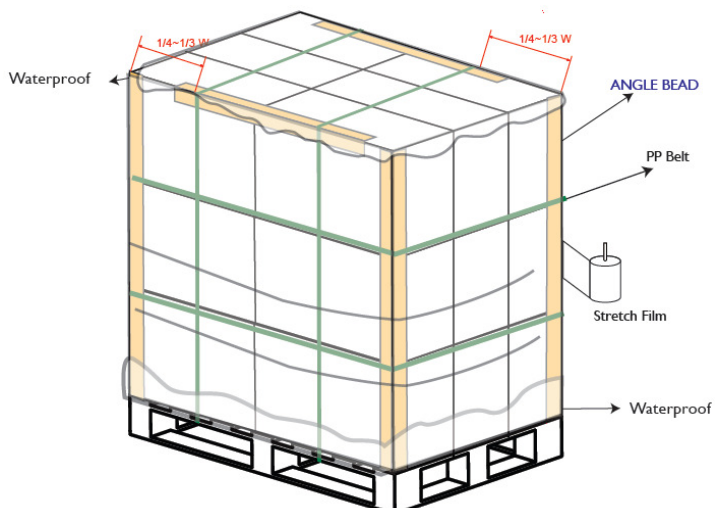
1. Carton Outside Dim.: 1240(W)*162(D)*437(H)mm
2. Pallet Dim.: 1150(D)*1250(W)*138(H)mm
3. For other stacking specifications, please refer to "DCAMM-06-008 Finished Shipment Packaging"
4. Pallets specification specifications please refer to "DQM-10-038 wood pallets missing identification and production specifications"
5. Stacking the stack, the upper pallet pins must be stacked on top of the lower deck of the carton
6. Not full box: Module should be placed in the box on average, and need to be stacked on the top of the goods



Note: For Air Freight



Note: For 20'/40' DC & HQ Container



10.3 Mechanical specification for GAP

No	Item	Standard				Remark
		Min	Typ	max	unit	
I	Cell + bezel GAP	0.2	0.5	0.8	mm	
	Bezel + rear cover GAP	0.6	0.8	1.0	mm	

11. Accessory

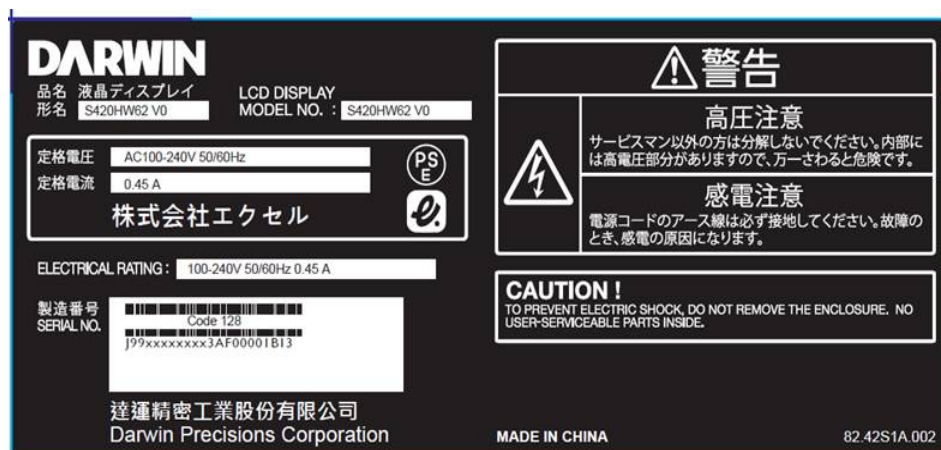
11.1. Accessories

No	Item	P/N (Darwin)	Unit	Remark
1	Remote Control Unit	49.42S33.001	I	
2	Battery	23.20000.010	I	2pcs
3	AC Power Cable	27.02318.007	I	1800mm
4	DVI Cable	50.55S0P.00G	I	1800mm



11.2. LABEL

Rating Label:



Carton Label:

DARWIN	QTY: 1	RoHS	
MODEL NAME: S420HW62 V0			
PART NO.: 99.42S1A.0AJ			
CUSTOMER NO.:			
CARTON NO.:			
****Z9942S1A0AJxxxxxxxBI3			
MADE IN CHINA			

12. RS232 Command Set

Baud rate	38400
Data Bits	8
Parity Check	None
Stop Bit	1
Flow Control	None

1. Power on

Command format						
header	command	data type	data	Checksum	request note	
0xAA	0x03	0x00	0x00	0xA9	set power on	
PID response data						
PID State	header	command	data type	data	Checksum	response note
Power on	0x55	0x03	0x00	0x00	0x56	return power on status
Standby	0x55	0x03	0x00	0x00	0x56	power on

2. Power off

Command format						
header	command	data type	data	Checksum	request note	
0xAA	0x03	0x00	0x0A	0xA3	set power off	
PID response data						
PID State	header	command	data type	data	Checksum	response note
Power on	0x55	0x03	0x00	0x0A	0x5C	power off
Standby	0x55	0x03	0x00	0x0A	0x5C	return power off status

3. Get power state

Command format						
header	command		data type	data	Checksum	request note
0xAA	0x03		0xFF	0xFF	0xA9	get power status
PID response data						
PID State	header	command	data type	data	Checksum	response note
Power on	0x55	0x03	0xFF	0x00	0xA9	return power on status
Standby	0x55	0x03	0xFF	0x0A	0xA3	return power off status

4. Set reset

Command format						
header	command	data type	data	Checksum	request note	
0xAA	0x43	0x00	0x00	0xE9	set reset	
PID response data						
PID State	header	command	data type	data	Checksum	response note
Power on	0x55	0x43	0x00	0x00	0x16	set reset
Standby	No response					

5. Auto adjust (for VGA source)

Command format						
header	command	data type	data	Checksum	request note	
0xAA	0x24	0x00	0x00	0x8E	set auto adjust	
PID response data						
PID State	header	command	data type	data	Checksum	response note
Power on	0x55	0x24	0x00	0x00	0x71	auto adjust
Standby	No response					

6. Source change

Command format						
header	command		data type	data	Checksum	request note
0xAA	0x01		0x00	0x04	0xAF	set signal source to RGB
0xAA	0x01		0x00	0x06	0xAD	set signal source to DVI
0xAA	0x01		0x00	0x07	0xAC	set signal source to HDMI
PID response data						
PID State	header	command	data type	data	Checksum	response note
Power on	0x55	0x01	0x00	0x04	0x50	set input source to RGB
Power on	0x55	0x01	0x00	0x06	0x52	set input source to DVI
Power on	0x55	0x01	0x00	0x07	0x53	set input source to HDMI
Standby	No response					

13. Warranty

Item	Q'TY	Recommended Period of Use	Warranty
LCM	1	50,000 hr	1. Repair without charge during the period of 1years (12 months) since delivery date to Customer 2. Repair with charge after 1years (after 12 months) since delivery date to Customer. 3. Paid maintenance need to contact with COSMO.
AD board	1	50,000 hr	
Driver board	1		
Power board	1		

Note :

1. The LCM life time is defined as the time which luminance of LED is 50% compared to its original value.
(Operating condition: continuous operating at Ta = 25°C)
2. Announce an official EOL notification 6 months ago.
Base on EOL announcement:
 - 2.1 Repair without charge during the period of 1years (12 months) since delivery date to Customer
 - 2.2 Repair with charge after 1 years (after 12 months) since delivery date to Customer.
3. For AD board/Driver board/Power board, if there is any function defect, Darwin will provide 1% FOC PCBA for Customer to cover these PCBA defect.

◆ Appendix

Dust Bar Spec:

Material: PORON

Thickness: 0.6T(Front Panel) / 1.5T (Rear)

Life time: 50,000hr

Min. Size Dust (Garbage): 10µm