

MONITOR DISPLAY MODULE

Product Specification

Customer	Standard		
Product Number	DM-285BD-MPGR01		
Ordering Part Number	DM-285BD-MPGR01		
Customer Approval		Date:	

Internal Approvals		
Product Mgr	Doc. Control	Electr. Eng.
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Revision Record

Rev.	Date	Page	Chapt.	Comment	ECR no.
A	14/08/2018	--	--	Preliminary	



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1.0 General Descriptions

1.1 Introduction

This is a 28.5" bar cut Monitor with a PCT touch, 1920 x 540 resolution, 16.7M colour, 178-degree wide viewing angle, providing high image quality from the analogue RGB, DVI-D.

1.2 Main Features

Item	Contents
Screen Size	28.5"
Display Format	1920(H) x 540(V)
Colour	16.7M
Touch	PCT 10 finger touch
Overall Dimensions	757.30 (W) × 255.60(H) × 57.0 (D) mm
Active Area	698.40 (W) x 196.43 (H) mm
Pixel Pitch	0.3637 (H) x 0.3637 (W) mm
Viewing Angle	L/R: 178° U/D: 178°
Contrast Ratio	6000: 1 (Typ.)
Brightness	700 CD/m2
I/O	1 x VGA, 1 x DVI-D, 1 x HDMI
Backlight	LED
Mechanism	Bezel Frame (Chassis Frame)
Plug & Play	DDC2B (VESA Standard)
Response time (G to G)	8ms
Touch Panel	PCT
Touch Interface	USB (B Type)
Operating temperature	0°C ~ +50°C
Storage temperature	-20°C ~ +60°C

1.3 Scanning Frequency

Item	Contents
Horizontal	31.5 ~ 80KHz
Vertical	55 ~ 75Hz

1.4 Input Resolution [Analog RGB & DVI-D & HDMI]

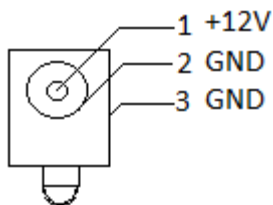
Item	Contents
Recommended Resolution	1920x1080@ 60Hz
Supported Input Resolution	640x480@60/72/75 Hz 800x600@56/60/72/75 Hz 1024x768@60/70/75 Hz 1280x1024@60/75 Hz 1920x1080@60 Hz

1.5 Input Signal

Item	Contents
RGB (VGA)	Analog RGB Amplitude: $0.7 \pm 0.05V$ Input Impedance: $75 \pm 2\% \text{ ohm}$ Sync: H/V Separate (TTL Level)
DVI-D, HDMI	Swing Voltage: $400mV \leq V_{\text{sig}} \leq 600mV$ Termination Resistance: $50 \pm 10\% \text{ ohm}$

1.6 Power Supply Rating

Power Input (DC Jack, Ø2.5)

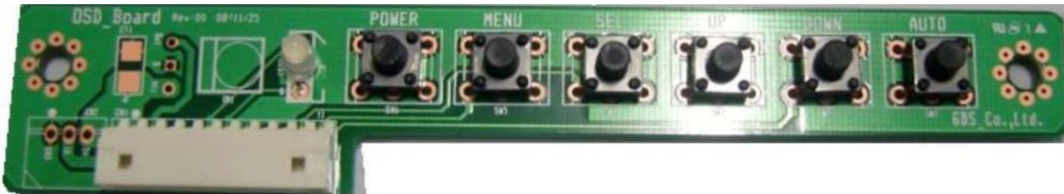


Item	Contents
Power Consumption	38.71 Watt (Typ.) @Set
DC Output	12Vdc 6.0A
AC input	100~240Vac

1.7 User Controls

Item	Contents
OSD Key Button	6 Key
OSD Language	English

1.8 Key Button Function

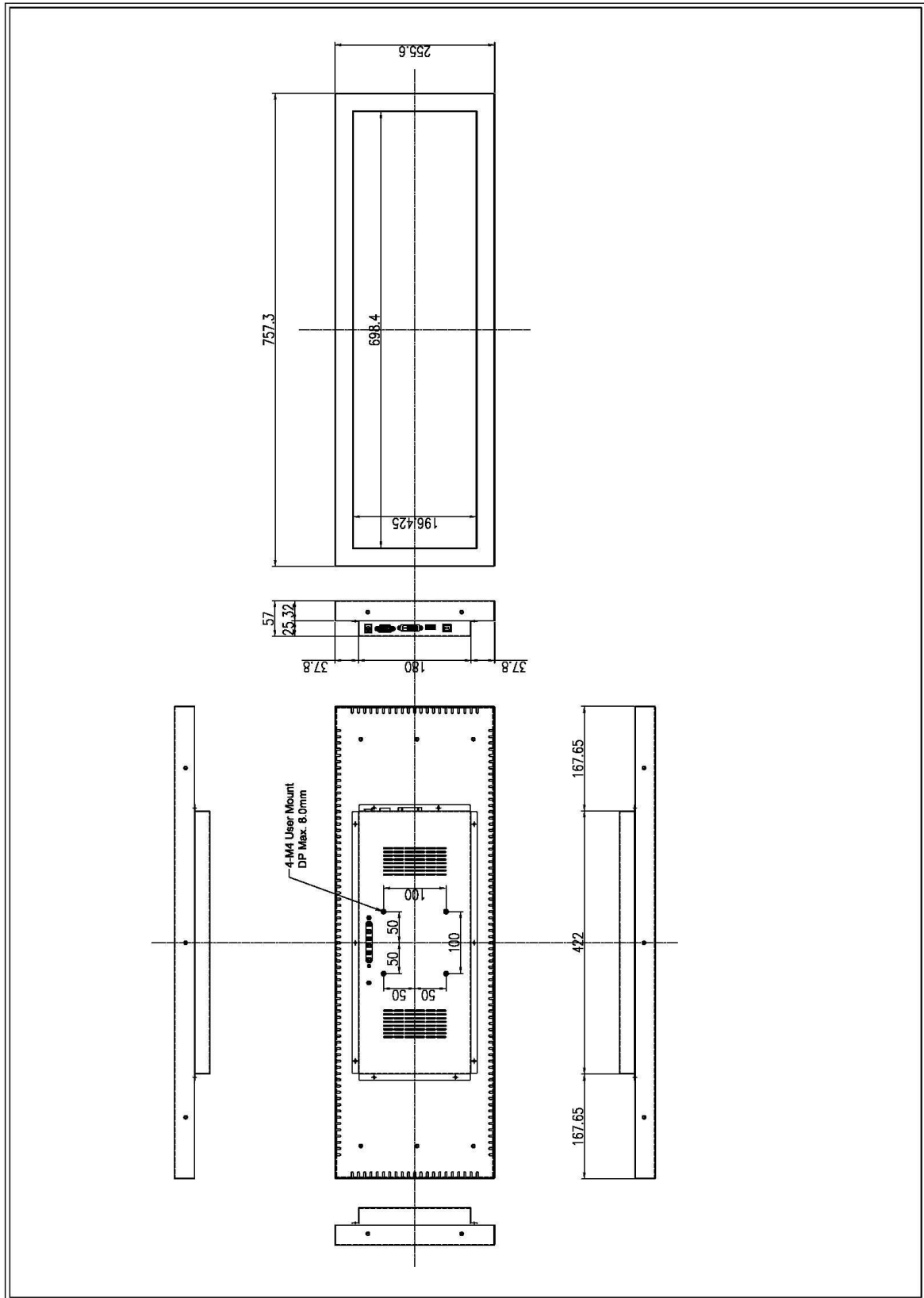
	
Button	Function
Power	Turns On/Off the system
Menu	Activates the OSD menu or Previous Menu, Exit
Select	Select input function (hotkey) or Sub Menu select
Up	Adjust Button/ Brightness & Contrast menu on Move the bar right to increase the Adjustment Move the main menu or sub menu Brightness & Contrast menu on
Down	Adjust Button/ Brightness & Contrast menu on Move the bar left to increase the Adjustment Move the main menu or sub menu
Auto	Adjustment RGB(Hotkey), disabled main menu

2.0 Mechanical Specification

2.1 Mechanical Characteristics

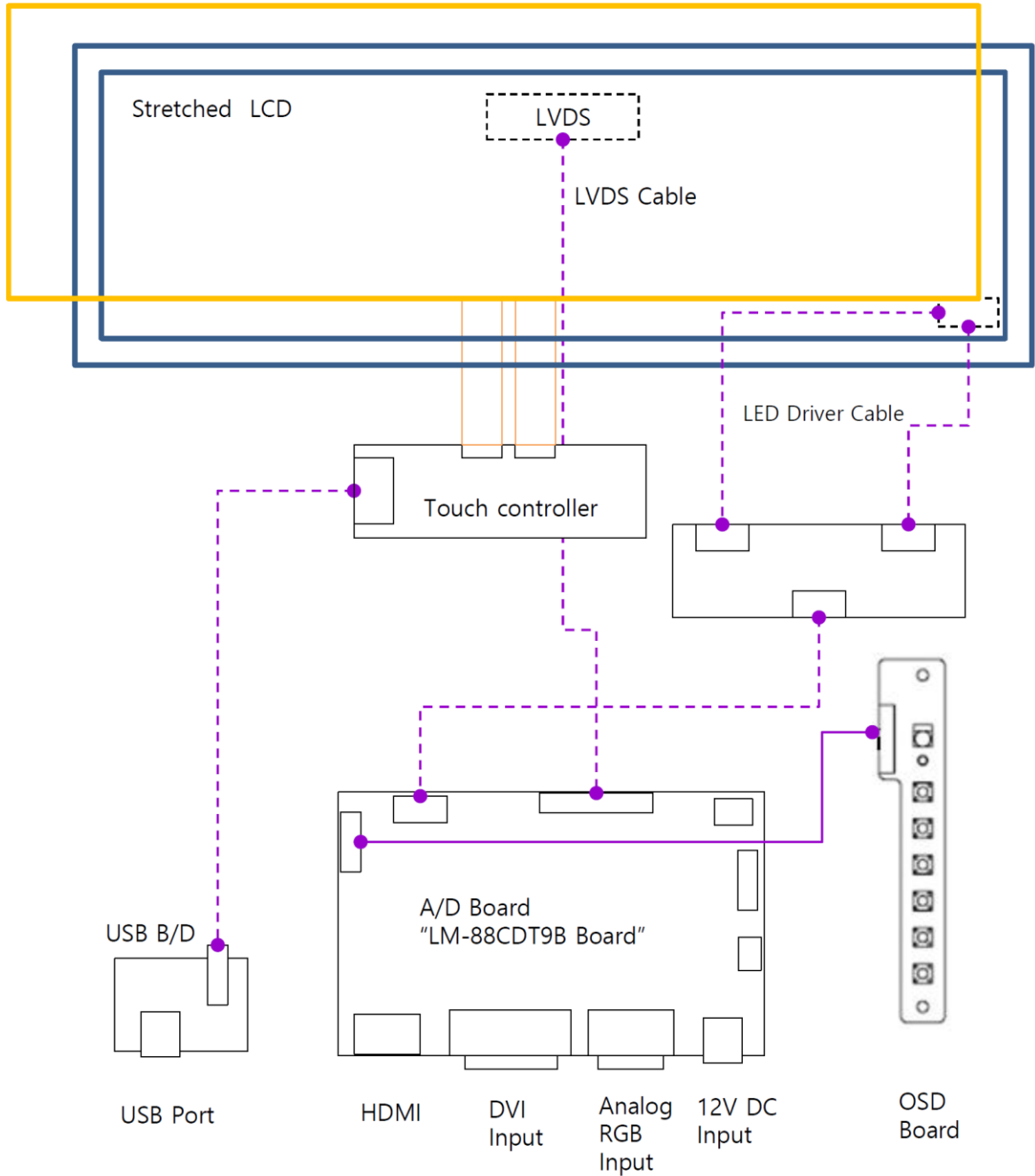
Item	Characteristic	Unit
Display Format	1920(H) x 540(V)	Dots
Overall Dimensions	757.30 (W) × 255.60(H) × 57.0 (D)	mm
Active Area	698.400 (W) x 196.425 (H)	mm
Display colour	16.7M	
Mounting	User hole for M4 Screw depth max 5mm 100 x 100 mm	

2.2 Mechanical Drawing



2.3 Block Diagram

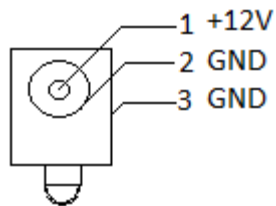
P-cap Touch



3.0 Electrical Specification

3.1 Power

Power Input (DC Jack, Ø2.5)



Item	Remark
Normal Input Voltage Range	12V DC $\pm 10\%$
Power Connector	Molex 5559-04P
Power Consumption	38.71W Typical

4.0 Timing Characteristics

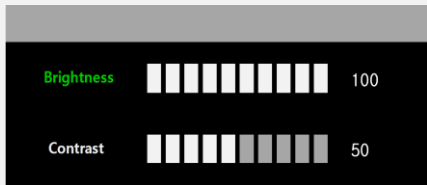
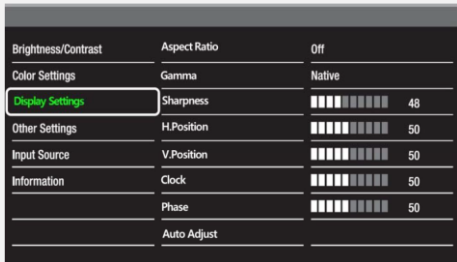
PC/DVI/HDMI Signal resolution (DTV)

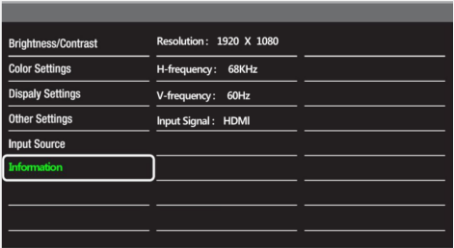
No.	Resolution	V-freq.(Hz)	Proposed
1	720*480	60.00	SDTV 480p
2	720*576	50.00	SDTV 576p
3	1280*720	50.00	HDTV 720p 50Hz
4	1280*720	60.00	HDTV 720p 60Hz
5	1920*540	60.00	HDTV 540p 60Hz

PC/DVI/HDMI Signal Resolution (PC)

No.	Resolution	V-freq.(Hz)	Proposed
1	640*480	60.00	
2	800*600	56.00	
3	800*600	60.00	
4	1024*768	60.00	
5	1280*1024	60.00	
6	1280*768	60.00	
9	1920*540	60.00	

5.0 OSD function

Menu	Pictures	Function
Brightness /Contrast		Brightness: Adjust Back Light Brightness Contrast: Adjust the Contrast
Main Menu		Adjustment menu contents
Colour Setting		Adjust the colour temperature: 1000K, 9300K, 6500K User Preset: Adjust the colour gain Red/Green/Blue
Display Setting		Aspect Ratio: Not available Gamma: Set the Gamma, Native / 2.2 / 1.8 Sharpness: Adjust the picture sharpness Clock: Adjust the clock (frequency) of the screen Phase: Adjust the phase of the screen, move the image position Auto Adjust: Adjust clock and the phase of display automatically
Other Settings		Language: Select language for OSD menu OST Timeout: Adjust the OSD off timer Anti-Image Retention: moving the horizontal position of OSD menu Set ID: SET ID (RS-232 Option)

Menu	Pictures	Function
Input Source		Auto: Select the signal input automatically VGA, DVI, HDMI: Select the input
Information		Displays Information regarding the current input signal

6.0 Optical Specification

6.1 Optical Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Brightness	L _{br}		-	700	-	cd/m ²
Dark Room Contrast	CR		-	6000:1	-	
View Angle			-	178/178	-	degree

7.0 Environmental Specification

7.1 Environmental Characteristics

Item	Remark
Operating Temperature	0°C ~ +50°C
Storage Temperature	-20°C ~ +60°C
Storage Humidity	10~90% RH
Operating Humidity	10~90% RH

8.0 Densitron Part numbering

Ordering Part number	Description
DM-285BD-MPGR01	28.5" Button Deck, 700 Nits, Metal Bezel, PCT, Generic AD board

1	D	Densitron Monitor
2	M	
3	-	
4~6	0	TFT Size: 043=4.3", 057=5.7", 070=7", 101=10.1"
	4	
	3	
7~8	G	SKUs: GN: Generic, BD: Button deck, 3D:3D, TP: Transparent, WT: Wide temp, DP: Dual Side, NB: Narrow Bezel, FM: Floating monitor, PT: Player Tracker
	N	
9	-	
10	O	Bezel: O: Open frame, M: Metal bezel, P: Plastic bezel, F: Flat surface K: Display kit only
11	P	Touch Screen: G: Glass, R: Resistive, S: SCT, P: PCT, D: DST, A: Acoustic, N: No need
12	1	- Control Board(AD Board): ranges from 1 to 9 (a to z if needed) - G: Generic - X: X86 Platform - Y: Arm Platform
13	R	Revision
14~15	0	Code for different configuration, ranges from 01 to 99 (a to z if needed)
	1	