

# DMG48320C035\_03WTR

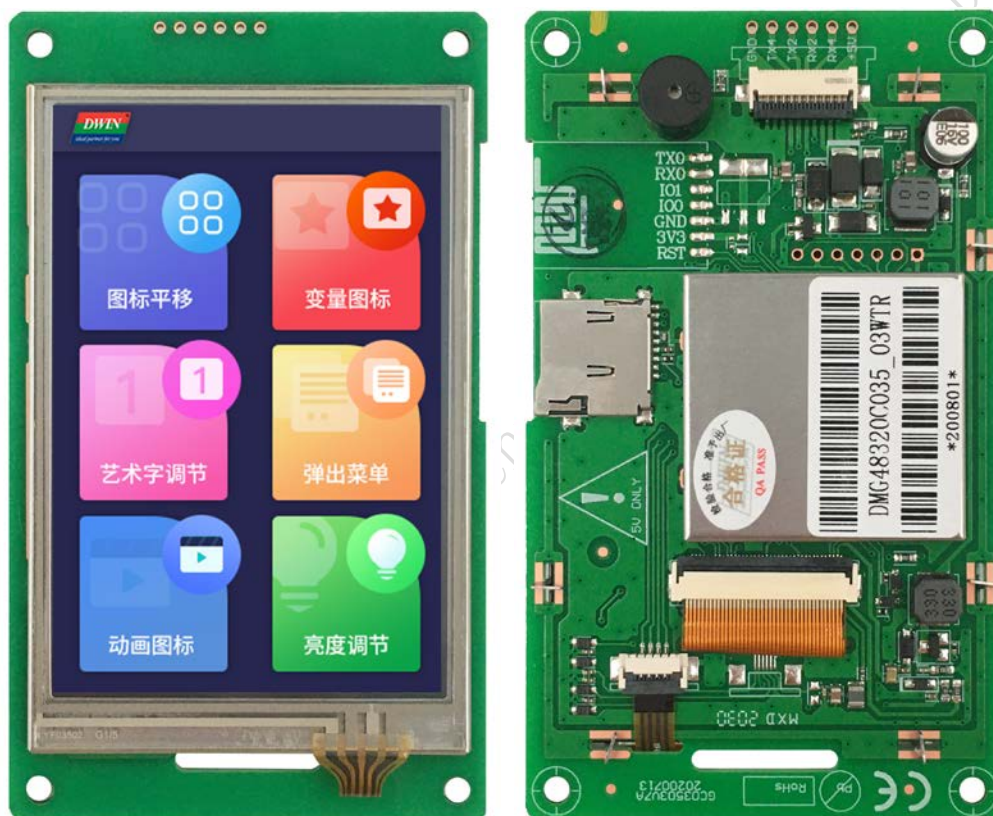
# DMG48320C035\_03WN

based on T5L ASIC of 3.5 inch, 320×480 pixel matrix, 16.7M color, IPS screen,

Resistive touch screen, standard instruction set (TA)/DGUSII system

Based on T5L ASIC 3.5 Inches, 320×RGB×480, 16.7M Colors, IPS screen,

RTP, Standard instruction set (TA) / DGUSII system



#### revision history

#### Record of Revision

date Revise Date	describe Content
2019-03-27	Initial Release First Edition
2020-05-25	Update memory properties Update Memory
2020-06-10	Re-revised, LCD screen material by TN replace with IPS Revise, LCD type is replace from TN to IPS
2020-09-18	Update physical map Update physical drawing
2020-10-26	Update LCD type Update panel type

-Display performance parameters Display

parameter Item	data Parameter	illustrate Description
color Color	16.7M(16777216)colors	24 bit color 8R8G8B
Liquid crystal type Panel Type	IPS	IPScraftTFTDisplay, wide viewing angle IPS TFT LCM ,wide viewing angle
Viewing angle Viewing Angle	85/85/85/85 (L/R/U/D)	Best viewing angle: Symmetrical up and down Best View:symmetrical
Display size Active Area (AA)	49.0mm (W)×73.4mm (H)	320×480
Viewport size View Area (VA)	49.7mm (W)×74.1mm (H)	320×480
Resolution Resolution	320×480	can be set to 0°/90°/180°/270°display mode Support 0°/90°/180°/270°rotated display
Backlight mode Backlight	led	not lower than 20000H(Continuous work at the highest brightness, brightness halved time) ≥20000H(Continuous working with maximum brightness, time of the brightness decays to 50%)
brightness Brightness	DMG48320C035_03WTR: 250nit DMG48320C035_03WN: 300nit	can be carried out 100 level brightness adjustment (when the brightness is adjusted to the maximum brightness 1%~30% flickering phenomenon may occur, it is not recommended to use in this range).  100 levels adjustment.(It's not recommend to set brightness to 1%~30% of the maximum, which may lead LCD flicker)
<p>Note: more than 30 minutes displaying a high-contrast still image for a long time may result in afterimage display. Please add a screen saver to avoid this problem.</p> <p>Note: Displaying of high-contrast still images for more than 30 minutes may result in residual images. Please add animation to avoid this problem.</p>		

- Electrical performance parameters Voltage & Current

parameter Item	Test Conditions Conditions	minimum Min	Typical value Typ	maximum value Max	unit Unit
Operating Voltage Power Voltage	-	4.5	5.0	5.5	V
Working current Operation Current	VCC = +5V, the maximum backlight brightness VCC = +5V, Backlight on	-	130	-	mA
	VCC = +5V, the backlight is off VCC = +5V, Backlight off	-	40	-	mA
Recommended power supply: 5V 1ADC stabilized power supply Recommended power supply: 5V 1A DC					

- Working environment and reliability parameters Reliability Test

parameter Item	Test Conditions Conditions	minimum Min	Typical value Typ	maximum value Max	unit Unit
Operating temperature Working Temperature	5V voltage, humidity 60% 60%RH at 5V voltage	- 20	25	70	°C
Storage temperature Storage Temperature	-	- 30	25	85	°C
Working humidity Working Humidity	25°C	10%	60%	90%	RH
Three-proof treatment Protective Paint	-	-	none None	-	-
Static protection ability Electrostatic protection capability	air discharge Air discharge	-	±4KV	-	-
	contact discharge Contact discharge	-	±4KV	-	-
group pulse Group pulse	Combined anti-interference tester (CCS500) GB/T17626.4-2008 1KV 100KHz	-	2class	-	-

-Interface performance parameters Interface

parameter Item	Test Conditions Conditions	minimum Min	Typical value Typ	maximum value Max	unit Unit
Serial port baud rate Baudrate	User Defined (Hardware Profile Settings) User Set	3150	115200	3225600	bps

Serial output level <b>Output Voltage (TXD)</b>	Output 1, Iout = 1mA	3.0	3.3	-	V
	Output 0, Iout = -1mA	-	0	0.3	V
Serial input level <b>Input Voltage (RXD)</b>	Input 1, Iin = 1mA	2.4	3.3	5.0	V
	Input 0, Iin = -1mA	0	-	0.5	V
<b>Serial mode Interface</b>	UART2: N81,3.3V TTL/CMOS UART4: N81/E81/O81/N82Four modes are available,3.3V TTL/CMOS(OScan only be used after configuration) UART4:Optional N81/E81/O81/N82 four mode,3.3V TTL/CMOS(Be used after OS Configuration)				
<b>user interface Socket</b>	10Pin_1.0mm FCCseat 10Pin_1.0mm FCC Socket				
<b>USBinterface</b>	none None				
<b>SDcard interface SD Slot</b>	Have(Micro SDHC(TF)Card/FAT32Format) YES (Micro SDHC(TF) card /FAT32 Format)				

**-Memory characteristicsMemory**

memory class <b>Item</b>	parameter <b>Parameter</b>	Function <b>Features</b>	illustrate <b>Description</b>
<b>FLASHmemory</b>	16Mbytes	Font storage space Space of Font	single font256Kbytes,Store fonts, icon libraries and more binary file. A single font of 256Kbytes,store font, icon libraries, and other binary files
		image storage space Picture Storage	JPEGImage storage format, (image storage number and customer JPEGImage size is related, a singleJPEGimage file Do not exceed the size252 Kbytes) JPEG format(Picture quantity relate to JPEG size, size of a single JPEG image file should not exceed 252 Kbytes)
<b>RAMmemory</b>	128Kbytes	variable storage space Variable Storage Space	Power failure does not save Data is not saved when power down
<b>Nor Flashmemory</b>	512Kbytes	User database User database	Power-off save Data is saved when power down

**- UIand peripheral supportUI & Peripheral**

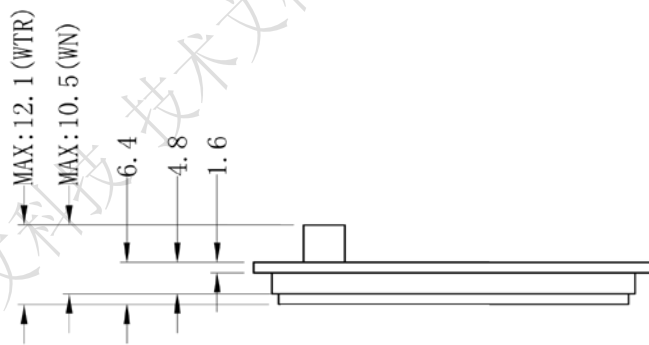
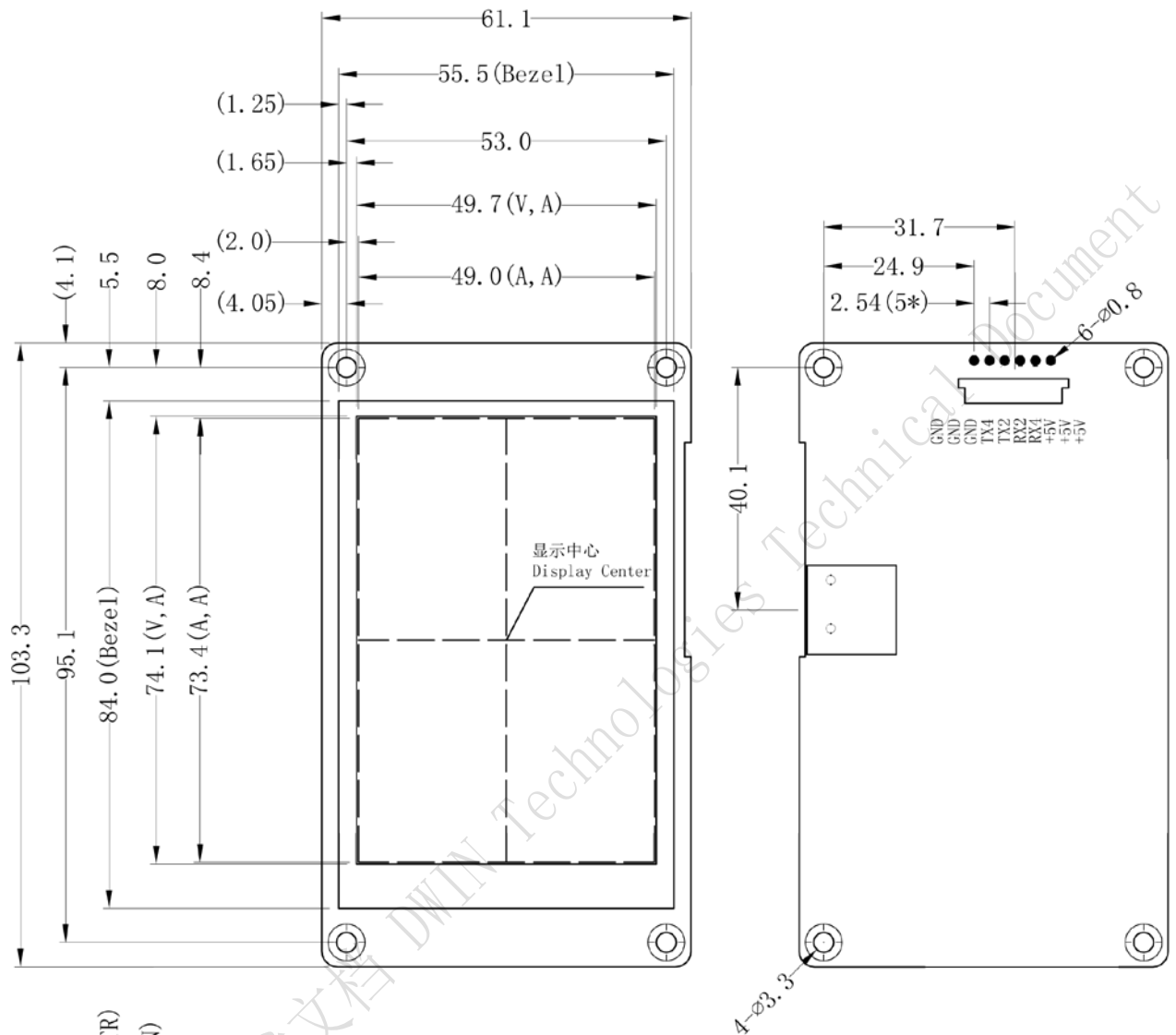
UIand peripherals <b>UI &amp; Peripheral</b>	
<b>UIVersion UI Version</b>	TA/DGUSII (factory pre-installedDGUSII) TA/DGUSII (DGUSIIpre-installed)
<b>Peripherals supported Peripheral</b>	DMG48320C035_03WN:buzzer DMG48320C035_03WN : Buzzer DMG48320C035_03WTR: Support resistive touch screen, built-in buzzer,WIFI_10module DMG48320C035_03WTR : Resistive touch panel, Built-in Buzzer, WIFI_10 module

**- Packaging and Physical DimensionsPacking Capacity & Dimension**

size <b>Dimension</b>				
<b>Dimensions Dimension</b>	DMG48320C035_03WTR: 103.3(W) × 61.1(H) × 12.1(T) mm DMG48320C035_03WN: 103.3(W) × 61.1(H) × 10.5(T) mm			
<b>Net Weight Net Weight</b>	DMG48320C035_03WTR:65g DMG48320C035_03WN: 50g			
packaging standard <b>Packing Capacity</b>				
packing box model <b>Model</b>	Box size <b>Size</b>	Number of layers (layers) <b>Layer</b>	Quantity/layer (piece) <b>Quantity/Layer</b>	Total quantity (pieces) <b>Quantity(Pcs)</b>
<b>1number boxCarton1:</b>	220mm(L)×160mm(W)×47mm(H)	1	2	2
<b>2number boxCarton2:</b>	250mm(L)×200mm(W)×80mm(H)	2	2	4
<b>3number boxCarton3:</b>	320mm(L)×270mm(W)×80mm(H)	2	4	8
<b>4number boxCarton4:</b>	450mm(L)×350mm(W)×300mm(H)	-	-	-
<b>5number boxCarton5:</b>	600mm(L)×450mm(W)×300mm(H)	2	60	120

Statement: The information is for reference only. It does not affect the performance parameters and product design changes used without prior notice.

Disclaimer: The information presented is for information purposes only. The new design changes of the product will be added as time goes by, do not affect performance parameters or use without prior notice.



1. 尺寸定位基准为定位孔  
Location hole is used as position reference.  
2. 未标注公差为 $\pm 0.3$ mm  
Unmarked Tolerance is  $\pm 0.3$ mm  
注: 虚线标注为有效显示区域  
Active area is marked in Dash lines

引脚名称	引脚定义	引脚类型	说明
GND	8, 9, 10	P	公共接地/GND
TX4	7	O	迪文屏串口输出DOUT
TX2	6	O	迪文屏串口输出DOUT
RX2	5	I	迪文屏串口输入DIN
RX4	4	I	迪文屏串口输入DIN
+5V	1, 2, 3	P	电源输入 /Power Input

型号	DMG48320C035_03WN DMG48320C035_03WTR			
图 纸	A 4	图 纸	DWIN	日期
比 例		审 核		日期
单 位	MM	批 准		日期

迪文科技  
DWIN Technologies