



7 inch Embedded All in One PC Specifications

Model: DM070

(Code Name: DM070B)



Guangzhou TouchWo Electronics Co., Ltd

version V1.0



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1 Product Overview

1.1 Features

- Stereo cooling structure: Multi hole stereo cooling design for better cooling effect.
- Installation : The installation method is pushed from outside to inside, so that the machine and the embedded structure are fixed on a flat surface, which is beautiful and elegant.
- Pure flat capacitive touch panel, support personalisation: 7" new generation of pure flat level 7 explosion-proof and shock-resistant glass panel, with precise touch, fast response and long touch life; can support personalisation such as colour, silkscreen LOGO and text.
- Touch: high sensing accuracy, fast response time, surface can be glossy or matte finish, support more refined industrial operation, no blind spots for touch.
- Faster running and more reliable storage: 50% faster running speed with high speed memory + solid state drive, big brand quality chips and long life.
- Massive compatibility, rich interface: support compatible with most industrial control configuration software, support customized multiple serial ports, USB interfaces and diverse peripheral devices. (e.g. 232, 485, TTL and other interfaces, camera, 4G module, card swiper, fingerprint recognition, POE power supply, QR code, small ticket printer, etc.)
- HD display: 7" LCD screen with LED backlight, low power consumption, clear, natural and transparent colours, supports multi-screen simultaneous/alternative display, easily extends multi-screen synchronous/asynchronous display.
- Strict QC and testing: the whole machine has undergone multiple tests such as 48-hour ageing, electrostatic testing, vibration, high voltage and display. Regulated voltage/electronic load test, voltage withstand test, touch/calibration test, controlled high temperature test, constant temperature and humidity test, controlled drop test.

2 Specifications



2.1 System design

Output (All in one PC)	Internal Android HDMI output
Input (Monitor only)	Support VGA、HDMI input
Touch	New projected capacitive screen with 10-point touch and multi-point gesture support.
Display	HDMI/VGA support 1024*600
PC Video decoding	MPEG、H.264 etc.
Structural design	Sheet metal backshell, industrial embedded
System modules	Display ,touch all in one, button switch

2.2 LCD Panel

Screen Type	A-Si,TFT-LCD, back-light, A-type		
Size	7 inch (16:9)		
Display area	155.5 (W) * 87.5 (H) mm		
Resolution	1024 * 600		
Brightness	$\geq 250\text{cd/m}^2$	Contrast ratio	$\geq 800: 1$
Response time	10/15(Typ.)(Tr/Td) ms	Refresh rate	60Hz
Number of colors	16M , 50% (CIE1931) LVDS 40 Pins		
Viewing angle	85/85/85/85 (Typ.) CR ≥ 10 left/right/up/down		
Life time	15000 hours		



2.3 Touch Panel

Touch technology	Projected capacitive technology (capacitive touchscreen)		
Response time	< 5ms		
Touch points	10-point touch as standard		
Touch effective recognition	> 1.5mm	Touch data output	Coordinate output
Touch effective recognition	200Hz	Scanning accuracy	4096×4096
Communications	USB 2.0,3.0	Theoretical Clicks	50 Millions
Firmware	Upgraded by USB	Driver	NO
Working Current/Voltage	180Ma/DC+5V ± 5%		
Surface Hardness	Chemically toughened, explosion-proof glass with a Mohs 7 rating		
OS	Win 7/ Win 8/Win 10/CE/Mac/Android/Linux /XP		

2.4 Power supply parameters

Input Power	110-240V AC 50/60Hz	Output power	DC 12V3A (Android/monitor)
Consumption for Touch monitor	< 20 W	Standby power consumption	< 0.5 W
Consumption for Android	< 25 W	Speaker	8 Ω 3W

2.5 Working environment

Operating temperature	0°C-50°C
Working humidity	10% - 80%
Storage temperature	-5°C-60°C
Storage humidity	10% - 70%
Altitude	Under 5000 meters



2.6 CPU

Project	Touchscreen Monitor	Android	Custom Design
Chip	Same as display parameters	Quad-core RK3288 Quad-core RK3568 Heta-core RK3399	Yes
Ram		2G/4G	
Hard Disk		8gb/16gb/32gb options	
Graphics		Android HD	
Definition		720P	
Operating System		verison 7.1/9.0 (RK3568, version 11.0)	
NIC		Integrated 10/100 / 1000M adaptive network card, wireless network card 802.11a / b / g / n	

3 Interfaces & Accessories

3.1 Interfaces for Touchscreen Monitor

DC Jack	2.1mm DC12V*1	Audio	1
VGA input(15pin D-Sub)	1	HDMI input	1
USB touch port	1		

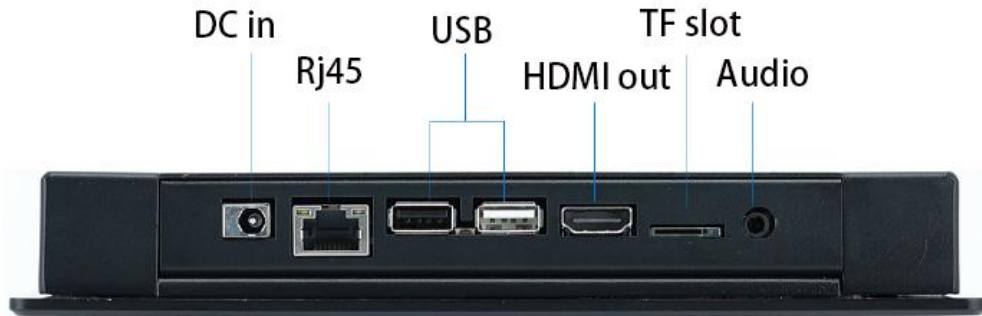
3.2 Interfaces for Android Touch PC

DC Jack	2.1mm DC12V*1	Headphone	1
RJ45	1	HDMI	1
USB(with OTG)	2	WIFI	1
TF /SD card slot	1	TTL/232/485 options	



Interfaces

Android



Monitor



Note: Different motherboards, interfaces and interface mounting positions may vary, subject to availability

3.3 Accessories

Instructions	1
AC Power line	1
Power Adapter	1
Recessed snaps/wall mount bracket/desk stand(Choose one of three)	1
Warranty Card	1
Certificate	1



HDMI/USB cable	HDMI *1; USB*1 (touch monitor only)
WIFI Antennae	1 (Android only)



Instruction



Warranty



Adapter



HDMI



USB

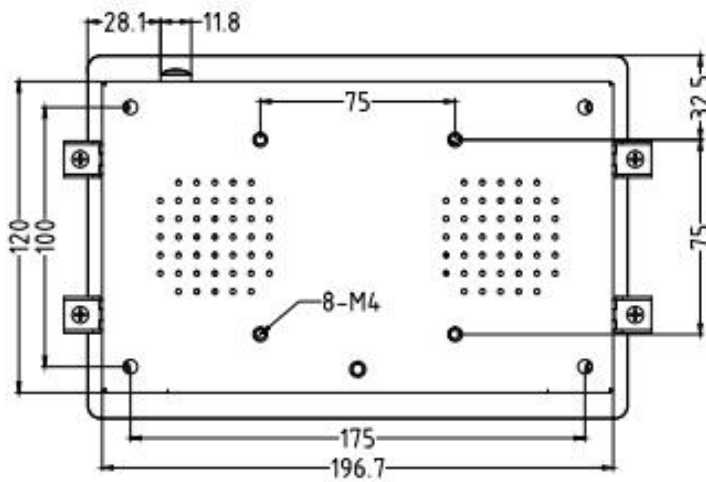
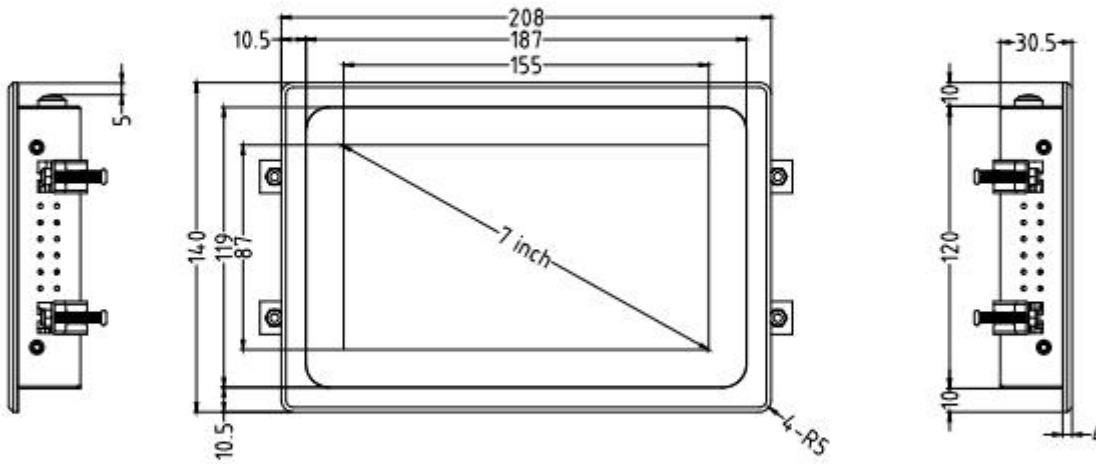
Wall mounted
desktop bracket

4 Mechanical Parameters

Size	7 inch
Display size	155 * 87 mm (16: 9)
Machine size (W * H *T)	208 (W) ×140 (H) ×30.5 (T) mm
Package size (W * H *T)	340 (W) ×277 (H) ×97 (T) mm
Recessed snaps/wall mount bracket/desk stand(Choose one of three)	Carabiner (net weight 31g), wall mount (net weight 106.8g), stand (net weight 275g), optional stand
VESA hole	75mm×75mm
Wall screw specifications	M4
Net weight	0.876KG
G.W (packaging)	1.35KG



Front view





5 Pictures

5.1 Pictures



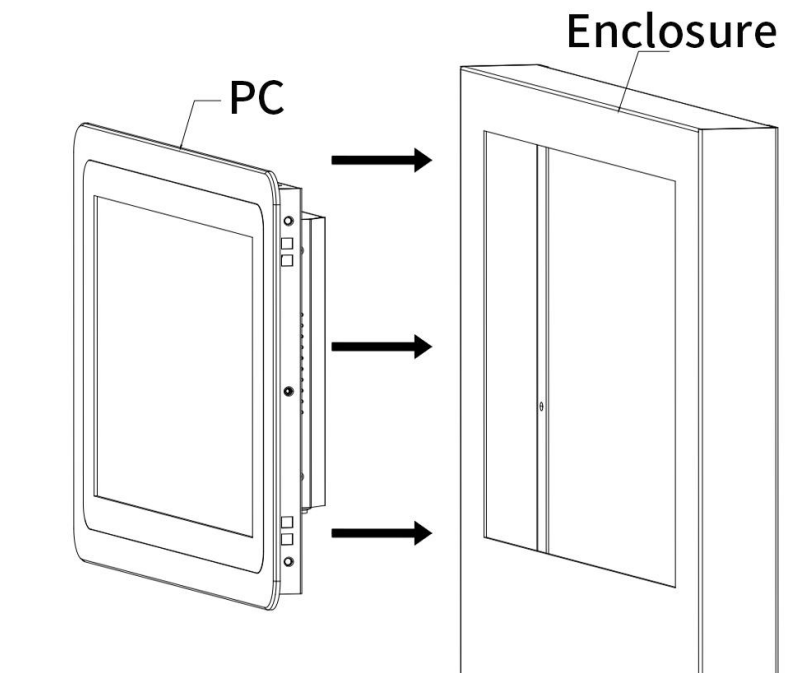
(Note: Due to different motherboards, the bottom of the corresponding interface and location is different, subject to the real thing)



5.2 Details

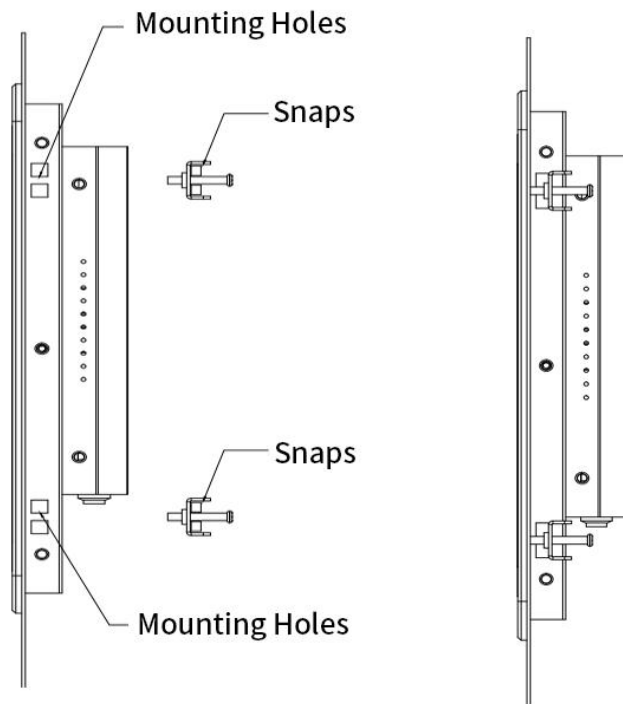


5.3 Product installation method





Step 2: Fix the snaps on the mounting holes of the PC, and tighten the snaps with screwdriver.



6 Warning

1. This product is a precision electronic device, the front is IP65, and the overall protection level is IPX3, so care should be taken to avoid water splashing and rain;
2. Do not place the equipment in a humid environment. Outdoor equipment needs to be equipped with a moisture-proof cover. When it rains and dew condensation, it needs to be protected to prevent water mist from entering the machine and the glass from becoming moldy. Wet use environment will accelerate the rapid aging of electronic components, thereby reducing the service life of this product and causing



moisture damage to components;

3. Do not place the device in an environment with strong ultraviolet rays and direct sunlight for a long time. When the temperature is higher than 50°C, ultraviolet rays and high temperature irradiate the screen will accelerate the deflection of liquid crystal molecules, and the screen will accelerate aging. When the outdoor temperature is higher than 50°C, move it indoors or perform shading treatment;

4. The brightness of the product is not less than 250cd/m². In the case of high ambient brightness, the screen display will not be clear. Please avoid placing it outdoors when the sun is strong;

5. When the temperature is lower than 0°C, the screen may not work properly due to the influence of the deflection of the liquid crystal molecules. It is not recommended to use it when the temperature is lower than 0°C;

- **The recommended ambient temperature for this product is 0-50° C and the humidity is 10%-80%.**