SYSOLUTION

Product Specification

Four-In-One

Master Controller Video Processor

M90 Plus

Ver.1.0 SYS/C3-0102003042

Update Record

No.	Version No.	Updates	Revision Date
1	Ver.1.0	Initial Issue	2017.11.01
Download (Chinese) : www.ledok.cn **Download (English) : www.sysolution.net**			

Note: This document may be updated without prior notice, thank you very much for your support and understanding.

Feature

- **Four in one**

Has video processor, synchronous sending card, asynchronous system and also cloud platform integrated together.

- **WEB based software**

  - ✓ Work with XIXUN AIPS platform (www.ledaips.com), support all online functions on AIPS which include: group control signs remotely, edit programs, Authority management and so on.
  - ✓ In build WEB server, compatible with computer, iPhone, Android cellphone, tablet and other smart devices.

- **In-built cloud player, support Ethernet, Wi-Fi, 3G and 4G**

  - ✓ Has in-built high-performance cloud player, 2GHz processor, 1GHz quad-core CPU, 8GB memory and support expansion to 32G with SD card.
  - ✓ Support access to AIPS cloud platform by RJ45/Wi-Fi

- **Multiple signals input**

  - ✓ Video processor: support 6 HD signals: DVI, VGA, HDMI, CVBS*2, USB*2
  - ✓ Support USB disk plug and play (include: video, image, text, clock and other materials)

- **Easy development with short cycle**

  - ✓ M90 Plus is based on Android system, which is flexible and transparent, client is able to do development on it like develop applications on cellphone.
  - ✓ Powerful Realtime SDK, port of Realtime SDK are all written by general technology, no custom protocol, as long as client know about js and html, they can finish the development in very short term.

◆ Other Function

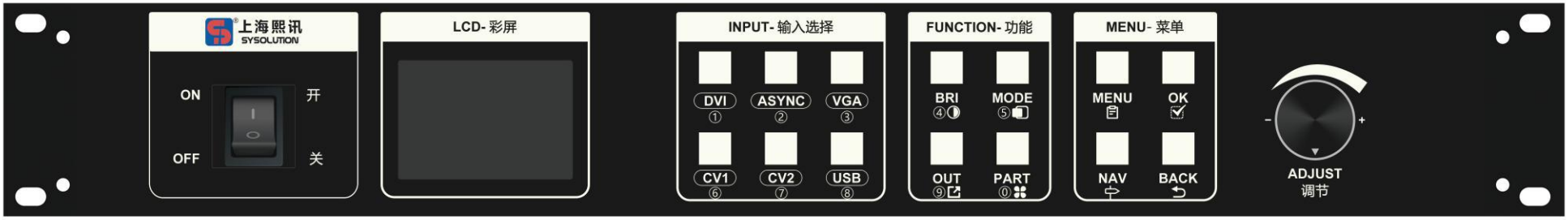
- ✓ Support big resolution: 1920*1080
- ✓ LED synchronous sending card with 4 network port, support picture playback and back up.
- ✓ Support non-linearity edit, general standard for advertisement edit in advertising business.
- ✓ Indoor advertising sign will show stored programs immediately once the sign has been powered up, no need to open any software and set parameters for it.
- ✓ Highly integrated 3G, 4G, Wi-Fi and GPS module to ensure the stability and security of the system (IP address for 3G is intranet, stranger can not access to this IP address even they have it)

- ✓ Status report, auto
- ✓ Read back showing pictures in real time and support monitor function by camera.

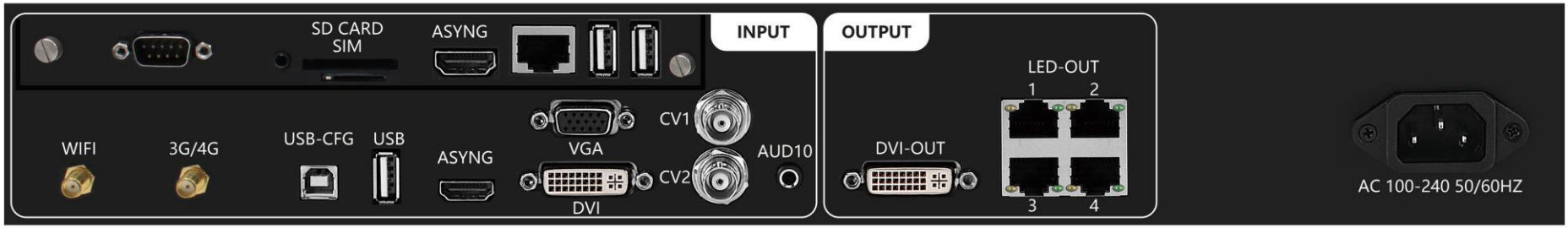
- ✓ Perfect switches between pictures or videos without any black frame, support USB camera to capturing pictures with low data, no data transmission during idle time.
- ✓ Accurate ads statistic to make sure time on report is same as the time ads has been showed on the sign.
- ✓ Support send ads according to the GPS position.

Panel diagram

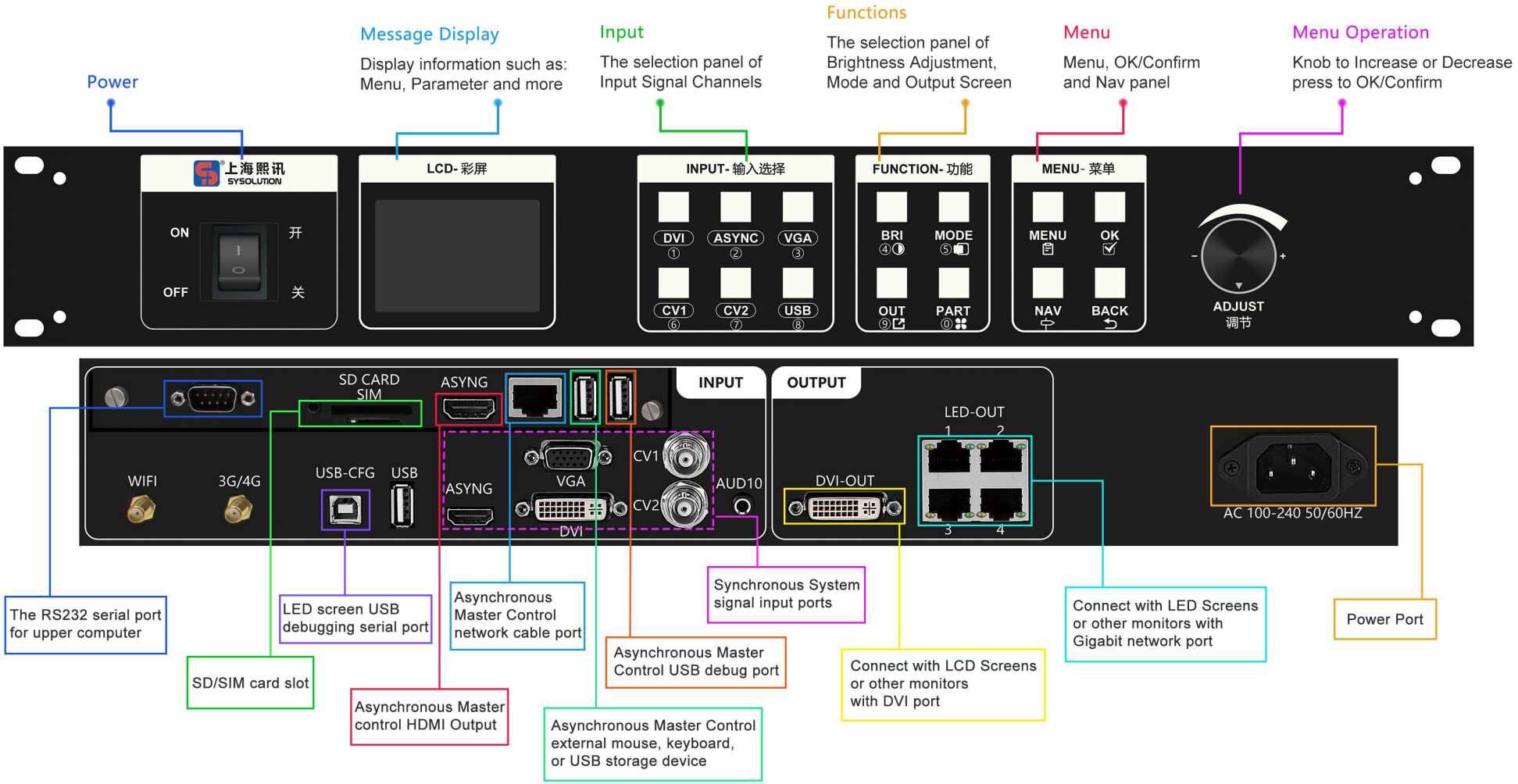
Front view :



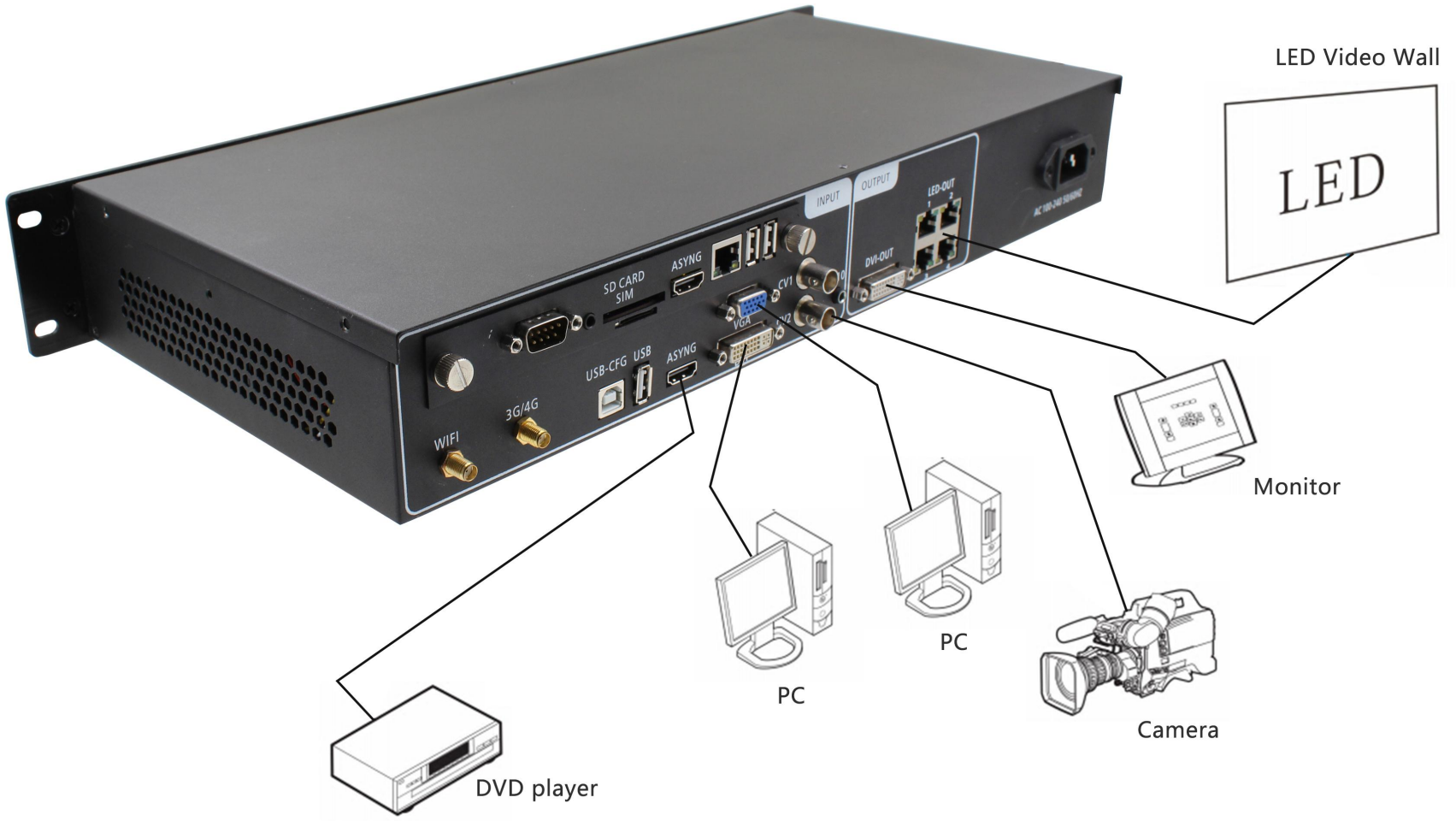
Back view :



Port overview



Device connection



Dimension Size

(**unit** : mm)

Specification

M90 Plus adopts the latest patented video processing technology, video conversion function with arbitrary format input and corresponding format output. Video signals such as CVBS (Composite Video Broadcast Signal), USB, HDMI, VGA(RGB) and DVI-D etc. can be processed.

The detailed specifications are as follows:

BNC Input	
Number of Inputs	2
Supported Standards	PAL/NTSC
Signal Level	1Vpp±3db (0.7V Video+0.3v Sync) 75 Ohm end knot
HDMI Input	
Number of Inputs	1
Supported Standards	EDID/DDC2B
Signal Level	1Vpp±3dB (0.7V Video+0.3v Sync) 75 Ohm end knot
USB Input	
Number of Inputs	1
Supported Standards	U-Disk, SD card etc input
Signal Level **Signal Level**	1Vpp±3dB (0.7V Video+0.3v Sync) 75 Ohm end knot

VGA(DB15 Input)	
Number of Inputs	1
Connector	Standard DB15 Socket
Resolution	VGA-UXGA
Signal Level	R、G、B、Hsync、Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync) 75 Ohm end knot black level: 300mV Sync-tip: 0V
DVI Input	
Number of Inputs	1
Connetor	Standard DVI-D Interface
Resolution	SMPTE: 625/25 PAL, 525/29.97 NTSC, 625/50p PAL, 525/59.94p NTSC, 1080P60,1080i50, 1080i59.94/60, 720p50 and 720p59.94/60 VESA: 800×600@60Hz，1024×768@60Hz，1280×768@60Hz， 1280×1024@60Hz，1600×1200@60Hz
Signal Level	TMDS Level，Single pixel input，165MHz Bandwidth
Standard	DVI 1.1

DVI Output	
Number of Inputs	1
Number of Inputs	Standard DVI-D Interface
Output Resolutions	1024×768@60Hz,1280×1024@60Hz 1366×768@60Hz,1440×900@60Hz 1600×1200@60Hz，1680×1050@60Hz 1920×1080@60Hz,1920x1080@60Hz
Signal Level	TMDS Level，165MHz Bandwidth
Ethernet Port Output	
Number of Inputs	4
Number of Inputs	Gigabit network port
Auxiliary	
CE Standard Certification	BS EN 55013:2001+A1:2003+A2:2006 BS EN 61000-3-2:2006+A2:2009 BS EN 6100-3-3:2008 BS EN 55020:2007 BS EN 6006:2002+A1:2006+A11:2008
PC or Small/Medium Control System Control	RS232 and USB
Power Supply	85-264V 2A IEC-3 Power Port
Quality Assurance	2 years quality warranty

Receiving Card

Type	Mode	Length*Width (Pixels)	Note
Standard	D90	Single card : 256×256 (support cascading)	Support 16 groups/20 groups RGB data; Double 50Pin Ports, connect a standard universal adapter card.
HUB75-12 Ports	D90-75		Support 24 groups RGB data; Support HUB75 12 Ports。
Small Card	D90-270		Support 16 groups/20 groups/24 groups RGB data; Four 26Pin Ports。
Goldfinger	D90-A4		Single card support 24 groups RGB signal parallel output Adopt DDR3 Port。

Working Conditions

Rated Voltage (V)	12	**Maximum**	12．5	**Minimum**	11.5
Rated Current (A)	3	**Maximum**	3．1	**Minimum**	2.9
Rated Power Consumption(W)	36	**Maximum**	38.75	**Minimum**	33.35
Working Ambient Temperature(℃)		-20℃ ~ 70℃			
Storage Temperature (℃)		-40℃ ~ 70℃, 5℃ ~35℃ Recommend			
Working Ambient Humidity(%)		10% ~ 90% , No Condensation			

Notes

1．Strictly forbidden plug in/pull out SIM card in power-on state.

2．Strictly forbidden plug in/ pull out antenna in power-on state.

3. Strictly forbidden disassemble the product