Statement

Dear users:

Thanks for choosing YDEA products. We will be happy that this manual can help you to understand and use our product properly. We tried to make all contents accurate and reliable in the manual. While there maybe some followed updates and modification without notice to you, so if you encounter any problem during the use of this manual, or you have a suggestion to us, please contact us according to the contact manner on the manual. We will do our best to help with your problem, and we would like to thank you in advance for any suggestions from you.

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Version: Rev 2.0.0
Date:  2017-02-15

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1. **Safety Statement**

To avoid possible hazards, please use this device as required. In case of any damage, non-professionals are not allowed to open and repair, please contact our after-sales service team in time.

| ⚠️ | Voltage hazard: the working voltage of this device is 5V/3A DC, and it cannot be connected to a different working voltage. |
| ⚠️ | Grounding: This device is connected to the earth by the earth wire of the power supply. Please make sure the earth wire socket is intact. |
| ⚠️ | Electromagnetic interference: This device should be away from magnets, motors and transformers. |
| ⚠️ | Moisture proof: Please put the device in a dry and clean environment. |
| ⚠️ | Away from flammable and explosive dangerous goods. |
| ⚠️ | It is forbidden to immerse any liquid or metal parts into the device, so as not to cause safety accidents. |
2. Overview

MDEA2FAST is a new released low cost innovative LED display information release system designed for advertising market, mainly for door head advertising, building lighting display...;

MDEA2FAST integrated network distribution system, single player system, LED control system in one unit, with the network interface (RJ45), Wi-Fi, external 3G card. This device can release information synchronously through the network and playback real-time video; it’s with built-in media player functions, can be used as PC host for media playing; it’s with video processor and LED controller and compatible with LED synchronous & asynchronous system. At the same time, it’s with competitive price. With this system can help customers to simplify the system structure & reduce the cost of control.

MDEA2FAST has solved the problem of complex system structure, various of external equipment, single function, high control cost, difficult system management and troublesome after-sale service.

3 Product Features

Compatible with synchronous & asynchronous system

MDEA2FAST comes with video processor and LED controller, compatible with LED synchronous asynchronous system.

Simple system structure
MDEA2FAST is an integrated network release system, LED control system, media playback system in one device, to achieve highly integrated architecture.

Centralized management of network

MDEA2FAST comes with network interface (RJ45), Wi-Fi, external 3G module, it can used for real-time information release and video playback through the network.

Media Player inside

MDEA2FAST comes with media player function, it can be used as a PC host to achieve local playback; the integrated hardware codec module can support 720p HD video decoding and playback; can play the local contents that saved in the hard disk / U disk.

Low control cost

MDEA2FAST is with very competitive price, less peripheral equipment can help customers achieve lower control costs.

Better safety performance

MDEA2FAST is based on the common system platform, stable performance with no system crash, easy software upgrade and maintenance, easy to use, eliminating the need for a large number of training.
## 4. Technical Specification

### Hardware Configuration

<table>
<thead>
<tr>
<th>Items</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Cortex-A7</td>
</tr>
<tr>
<td>GPU</td>
<td>Mali400, 400MHz</td>
</tr>
<tr>
<td>RAM</td>
<td>DDR3, 1GB</td>
</tr>
<tr>
<td>ROM Flash</td>
<td>8GB Flash memory</td>
</tr>
<tr>
<td>Multimedia Support</td>
<td></td>
</tr>
<tr>
<td>Photo</td>
<td>BMP, JPEG, M-JPEG, GIF, PNG</td>
</tr>
<tr>
<td>Video</td>
<td>MEPG1/2/4, H.263/H.264, WMV/VC-1, MVC, AVS, MJPEG</td>
</tr>
<tr>
<td>Audio</td>
<td>MP3, WMA, WAV, OGG, FLAC, ALAC, APE, AMR, AAC, AC-3</td>
</tr>
</tbody>
</table>

### Network

<table>
<thead>
<tr>
<th>Items</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIFI</td>
<td>Support 802.11b/g/n mode.</td>
</tr>
</tbody>
</table>

### Interface Configuration

<table>
<thead>
<tr>
<th>Items</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDMI</td>
<td>X1, Support HDMI1.3 &amp; above (1280*720/60hz)</td>
</tr>
<tr>
<td>USB</td>
<td>X2, for mouse, keyboard &amp; U disc</td>
</tr>
<tr>
<td>Audio</td>
<td>X1, 3.5mm audio interface</td>
</tr>
<tr>
<td>LED Video</td>
<td>X4, each socket can support output mode with 64<em>960/128</em>480/256<em>240/512</em>120/1024<em>60; each socket can be adjusted within 1024</em>600</td>
</tr>
</tbody>
</table>

### S/W Configuration

<table>
<thead>
<tr>
<th>Items</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>O/S</td>
<td>Andriod 4.2.2</td>
</tr>
<tr>
<td>Playing S/W</td>
<td>Internal</td>
</tr>
</tbody>
</table>

### Electrical Indicators

<table>
<thead>
<tr>
<th>Items</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Input</td>
<td>DC Power Supply (5V/3A)</td>
</tr>
<tr>
<td>Working Temp.</td>
<td>-40℃ ~ 75℃</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>≤15W</td>
</tr>
<tr>
<td>Dimension</td>
<td>155 mm × 78 mm (mm)</td>
</tr>
</tbody>
</table>
5. Interface Introduction

<table>
<thead>
<tr>
<th>No.</th>
<th>Function</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DC Power Input Interface</td>
<td>DC5V/3A</td>
</tr>
<tr>
<td>2</td>
<td>WIFI Antenna</td>
<td>Support 2.4G&amp;5G</td>
</tr>
<tr>
<td>3</td>
<td>MICRO USB</td>
<td>Burning system firmware</td>
</tr>
<tr>
<td>4</td>
<td>USB2</td>
<td>Used for U disc, mouse, keyboard</td>
</tr>
<tr>
<td>5</td>
<td>HDMI Interface</td>
<td>Used for connecting monitor for debugging purpose.</td>
</tr>
<tr>
<td>6</td>
<td>3.5mm earphone Interface</td>
<td>Used for connecting earphone or sound system</td>
</tr>
<tr>
<td>7</td>
<td>Button 1</td>
<td>Used for Wi-Fi reset and system recovery.</td>
</tr>
</tbody>
</table>

Press and hold for 3 seconds for Wi-Fi reset, press

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<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>2PIN Connector</td>
<td>Short circuit re-burn system firmware</td>
</tr>
<tr>
<td>9</td>
<td>LEDControl system signal output port</td>
<td>Used for output video signal, relevant interfaces as below,</td>
</tr>
<tr>
<td>10</td>
<td>SD card holder</td>
<td>Used for extending storage</td>
</tr>
<tr>
<td>11</td>
<td>SIM card holder</td>
<td>For 4G sim card</td>
</tr>
<tr>
<td>12</td>
<td>Reserved serial port 1</td>
<td>Reserved serial port 1</td>
</tr>
<tr>
<td>13</td>
<td>Reserved serial port 7</td>
<td>Reserved serial port 7</td>
</tr>
<tr>
<td>14</td>
<td>Brightness sensor interface</td>
<td>For connection with external brightness sensor</td>
</tr>
<tr>
<td>15</td>
<td>4G Module PCIE card holder</td>
<td>4G module Interface</td>
</tr>
</tbody>
</table>

**Interface Introduction**

**Power Interface:** MDEA2FAST system only support DC5V ;

**USB2 Interface:** This interface is used to update the firmware ;

**USB1 Interface:** This interface supports USB device access, such as USB disk, mouse, keyboard and other USB device. ;

**HDMI Output:** HDMI output Supports an external HDMI / DVI interface monitor to monitor the running status of the Mdea system ;

**Audio Output:** Audio output support 3.5 audio interface ;

**LED Video Output Interface:** LED video output interface is for connecting MDEA2FAST to the receiving card, transmits the video signal, the first pair of standard T568B cable is suitable for the connection ;

**Remark :**

1. LED video output signal is direct output to the screen, without passing a distributor;

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2. The signal cable for connection between MDEA2FAST and the screen: the inside distributor connect to the screen with a pair of twisted pair cable, as (white-orange, orange), Transmission distance is within 40 meters. (This cable must also be ultra-five single-stranded shielded twisted pair signal cable);

**Burning button:** used to connect the computer and MDEA2FAST to update the Android system firmware of the MDEA2FAST;

**System, hotkey reset button:** system, hotkey restore button is for the reset of Android system and WiFi hot spots;

**Note: the role of the system & hotkey reset button:**

System Reset button is mainly used when the media player is with problem, or system software is faulty, you can use this button to restore all the software to the factory initial state.

**The steps to restore the factory are as follows:**

Press and hold the reset key, power on the unit, wait for 7 seconds, release the reset button, MDEA2FAST will restore the factory mode;

**Hotspot reset:**

Mainly used for MDEA2FAST in normal operation but cannot find the hot spots, long press the reset button for 2s, you can switch the device to hotspot mode;

**Note:**

1. Long press the reset button for 7 seconds when power on the device is for the system restore, long press for 2 seconds during normal working of the device is to reset the hotspot mode.
2. Waiting for 90 seconds for the device to restart. If the startup fails, try restarting the factory reset again or upgrading the firmware.
6. MDEA2FAST System Connection Diagram

6.1 MDEA2FAST Micro system hardware connection diagram

6.2 System Description

1. MDEA2FAST is use standard internet cable to connect with the screen, the screens are connected in a series way, MDEA2FAST is with 4 signal output, each socket can support 64 * 960/128 * 480/256 * 240/512 * 120/1024 * 60 output mode; (each output port can move within the range of 1024 * 600);

2. The receiving port of the receiving card distinguishes the input and output, the signal end is marked as the IN and OUT;

3. Use the OUT port of the receiving card to connect to the IN port of the next receiving card;

4. We can use WIFI or MDEA2FAST hot spots to achieve wireless debugging screen with a computer (MDEA2FAST hotspot is MDEA2FAST system automatically generated);

5. When many MDEA2FAST devices are connected to the same LAN at the same time, the MDEA2FAST can be group managed through the mobile device or PC, and the MDEA2FAST device can be managed point to point.
7. MDEA2FAST System Operation

7.1 Basic operation of MDEA2FAST S/W

Double click on the software icon;

System Switching

Click on the menu bar in the [set]---[version]--- switch to the C5M_Mdea version;

Remark:

1. C5C/C5M means currently we are in the C5 system debugging software, C5C_Mdea/C5M_Mdea edition means this is Mdea system debugging, according to the actual need to select a corresponding system, after each choose of a different system, the software will automatically restart, the upper left corner of the software displays the currently selected system at the same time, as shown in the figure below.

2. For MDEA2FAST, we just simply select C5M_Mdea is okay;

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7.1.1 The main interface introduction

As shown in figure, the main interface is roughly divided into four regions, functional area, operating area, menu, shortcut menu area.

7.1.2 Basic operation introduction

1. Test network connection:

switch the s/w to network communication mode, then the computer wireless network connect with Mdea hotspot;

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Remark:

1. MDEA2FAST system can be set as the WIFI hotspot, or connect the external network;
2. The difference between MDEA2FAST system and C5 system, is the Mdea system cannot connect with the computer via a serial port implementation; So the computer can only be connected through WIFI network or Mdea hot spot, to achieve wireless network control;
3. The Mdea system under hotspot mode, it will generate a hot spot with a suffix name "__host";

   Click the refresh button to view the connection to the Mdea hotspot; As shown in figure:

   ![Network Connection](image)

   The connection is successful;
When the control software is well connected with the screen, the software will display hotspot IP address. Need to check the IP address with the arrow pointing, then click ok in the box. At this time, the software is well connected to Mdea system;

If the control software is not connected normal, the s/w shows the connection fail, need to connect again:
Note:

1. If the connection fails, then try to refresh a few times more, if still fails, restart the software to connect again.

2. Make sure the Mdea system hotspt status is normal;

7.2 Menu Bar Introduction

7.2.1 Document

![File Tools
Open
Save
Exit](Fig 7 Document)

**Open**: Used to open previously saved screen parameters;

**Save**: Used to save currently parameters for next time easy use;

**Exit**: Click to quit the s/w.

7.2.2 Functions
Brightness : can adjust the global brightness, current gain, color temperature.
Brightness range is: 1-256

Current gain range is: 1-256

The single color temperature range is: 0-255

Note: if need to adjust the color temperature coordinates, you can change the value of red, green and blue color temperature range to set the color temperature you need.

Automatic brightness adjustment _Light Sensor: MDEA system do not support the brightness adjustment yet;

Automatic brightness adjustment _DMX: Check out 《MDEA brightness

[Link to MDEA brightness page]
Online upgrade: this interface is used to upgrade Micro receiving card program.

Note:

1. MDEA2FAST temporarily does not support receiving card mark upgrade.

Online upgrade_E Version: this function should be supported in the latest update, particular case please contact technical support staff.

Dot-by-dot Correction: Point by point correction according to actual need, Mdea system temporarily does not support correction.

Gamma: adjust different gray level according to your request.

Grayscale values range: 8-16Bit.

The transition of Gamma value range: 0.000-3.00, used to adjust the Gamma curve.

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Slope;

**Gamma levels:** there were three grades: high, medium, and low, can achieve the effect of high grayscale and low brightness;

**Update, save and send:** updated is set current parameters to corresponding Gamma table, Save is to save the current Gamma table on software, next time you open the window automatically load the last saved Gamma table, click send is to send out all the parameters of the current Settings to the controller.

**The register Setting:** You can set the value of the register according to your demands, all the values will be set before the screen goes to market, customers do not need to operate;

( Fig11 Register Setting )

**Logo import:** Can import Logo to the little LED display behind the Screen;

**EDID Configuration:** MDEA2FAST do not have DVI signal input, so no this function;

**Characteristic Parameters:** can adjust the order of red, green, and blue according to request (for point light source)
**Tracing points tools**: used for point source tracing point, MDEA2FAST system temporarily do not support point source tracing point Settings;

### 7.2.3 Set up

**Communication Settings**: used to change to networks communication or serial port communication.

**Note**: 

1. **Serial communication** is used for communication between computers and C5 system, the computer is connect to the C5 system through a serial port;

2. **Network communication** is used for communication between computer and MDEA2FAST system, a computer can communicate with MDEA2FAST when they are within the same local area network (LAN);

![Fig12 Communication Setting](image)

**Language**: used to set the software to Chinese (simplified or traditional) display or English;

![Fig13 Language](image)
Autorun: used to set the control software running according to device power up or not.

7.2.4 About

Click on the menu, can view the version of installed software, it can help the user to easily communicate with the technical personnel from display manufacturers;

(Fig14   S/w version )

7.3 Shortcut menu bar
In the main interface on the right side, there are several shortcut menu buttons, function respectively as follows:

- Open preserved screen configuration file;
- save the current screen parameters as a configuration file, convenient to load directly for next time use;
- click on this button to adjust the brightness, current gain and color temperature;

**Note:**

1. The current gain setting is hidden by default, need to enter the password under the window to displayed, the password is "ydea";
2. PC software default current gain maximum adjust to 172, input pincode "0000" to
adjust it to the biggest;

: click this button to quickly test a serial port.

: click on the icon, you can switch display on or off. If all of the parameter Settings are right, but the display screen is black, click the icon to test whether the screen are shut off or not;

Note: 1. This shortcut button is switch for display on/off;

: During manual and automatic connectivity, click on the icon, you can cancel the connection;

: Check the control system version which currently connected to the computer;

Note: this shortcut button can query the current version of the control system, include: controller version, receiving card version;

: when using "CTRL + mouse wheel" to expand the view of the window, click the icon to return to the initial window size.
7.4 MDEA2FAST Software Debugging

7.4.1 Screen connection

1.1 Master port selection:

![Port select interface image](image)

(Fig26 Master port)

**Note:**

1. A single port output of MDEA2FAST system can support up to 1024 * 600 pixels;

2. The software default to choose P1, no need to change;

1.2 Port adding

Click on the “Port mode” to enter the interface

![Port adding interface image](image)

(Fig27 Port adding)
Name: product name can be set according to need freely

Rotation: according to the requirements, can achieve 0°, 90°, 180°, 270° rotating in four directions. Rotation is counterclockwise

Note: this function needs support of receive card program;

Size: single block screen width (X) and height (Y)

Note: the size is pixel density of single micro receive card;

Number: transverse loading screen number (X) and vertical loading screen number (Y)

Note: Numbers here refers to receiving card that one distributor takes;

Connection: you can set the port connection way, there are eight kinds of connection mode for your choice; if connection way is irregular, you can click [edit] to enter complex mode Settings.

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**Note:**

**connection mode:** it means connection way of receiving card under single distributor;

**Add:** after the related parameters have been set, click [add], to generate the corresponding port mode on the right side port modelist.

**Note:**

1. The system will automatically select the distributor load mode according to the screen size and blocks. System can support 64 * 960, 128 * 480, 128 * 240, 512 * 120, 512 * 60 mode, MDEA2FAST will automatically choose the pattern, the max load points is 1024 * 600;

2. If you need to rotate, first fill in the name, the body size (the default direction of the screen body size), blocks (rotate after the actual carrying blocks of X direction, Y direction of the blocks), choose connection mode, and then choose the rotation Angle, and then click add, and then the display will automatically change;

3. For example, a screen body size is 96 * 16, power supply box on the right, if you need the vertical display, power supply box on top and install 5 blocks, and then fill in the name first in the software, then fill out a single screen size for X96, Y16, blocks X5, Y1, then choose connection mode, then choose rotation Angle 270 °;
Finally click add, and then you will see a single screen size becomes X16, Y96 automatically.

Complex Patterns
Click [Edit], to get into complex mode;

**Name**: product name can be set according to need freely, in order to distinguish.

**Rotation**: according to the demand, used for four direction rotation.

**Serial number**: corresponding to serial number on the right side window, it’s the physical address of the receive card, the default is 1.

**Coordinates**: used to modify the coordinates of each module to showing a different position.

**Cancellation, Clearance**: can easily modify the signal connection mode.

**Done**: After finish setting change, click Done.

1.3 Port No.
Set port number: a window is on behalf of one output of the distributor, MDEA2FAST currently supported four ports output, the software only need to set up four ports, the arrangement of four ports can be set according to your request freely, it can move within 1024 * 600 points.

1.4 Position fine adjustment

Window position can be drag within load points scope, empty area equivalent to the location of the monitor screen of a computer, also you can set window starting coordinates by the Position fine adjustment functionon the lower left corner;
1.5 Connection Mode (Face the screen)

Connection mode refers to the cable connection manner behind the screen. You can choose automatic or manual. If choose auto, on the right you can have 8 kinds of basic linear way to choose from; After checked manual, you can click on window to choose how to arrange the connection.

Selected the window has been well set, and then click the right mouse button, can pop up the following Settings:

- **Delete window**: Delete current window;
- **Clear window**: Clear all the windows under a port of the master set;
- **Clear connection**: Clear all the connections under a port of the master set;
**bonding**: when two windows are very close to each other, the software will automatically bonding two windows, off this function you can place the windows anywhere you want to place at.

(Fig36  Connection Window)

### 1.6 Parameters Sending

When set up is completed, click "send" on the lower right corner.

(Fig37  Connection)

### 8 MDEA2FAST FAQ

<table>
<thead>
<tr>
<th>FAQs</th>
<th>Judgment and correction</th>
</tr>
</thead>
<tbody>
<tr>
<td>PW indicator is on, WK indicator does not blink</td>
<td>1. The PW indicator off indicating that there is a problem with the power input</td>
</tr>
</tbody>
</table>

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2. WK indicator flashes to indicate the normal operation status of MDEA2FST system
3. The PH indicator flashes to indicate that the network signal is normally transmitted to the receiving card

<table>
<thead>
<tr>
<th>Can not send parameters</th>
<th>1. Check the computer and MDEA2FST system is well connected or not.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color is wrong, there is distortion</td>
<td>1. Whether the gray level of the control system is sent correctly</td>
</tr>
<tr>
<td></td>
<td>2. Check the host computer software, if screen body switch is unlocked.</td>
</tr>
</tbody>
</table>

| Signal connection is normal, while the screen is black | 1. Check the brightness of the transmission is zero or not in the s/w; |
|                                                      | 2. Check the host computer software, if screen body switch is unlocked. |

| The computer can not connect to MDEA2FST | 1. Check whether the MDEA2FST hotspot status is normal, and whether the computer-side wireless network is connected to this hotspot |

9 MDEA2FAST System

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