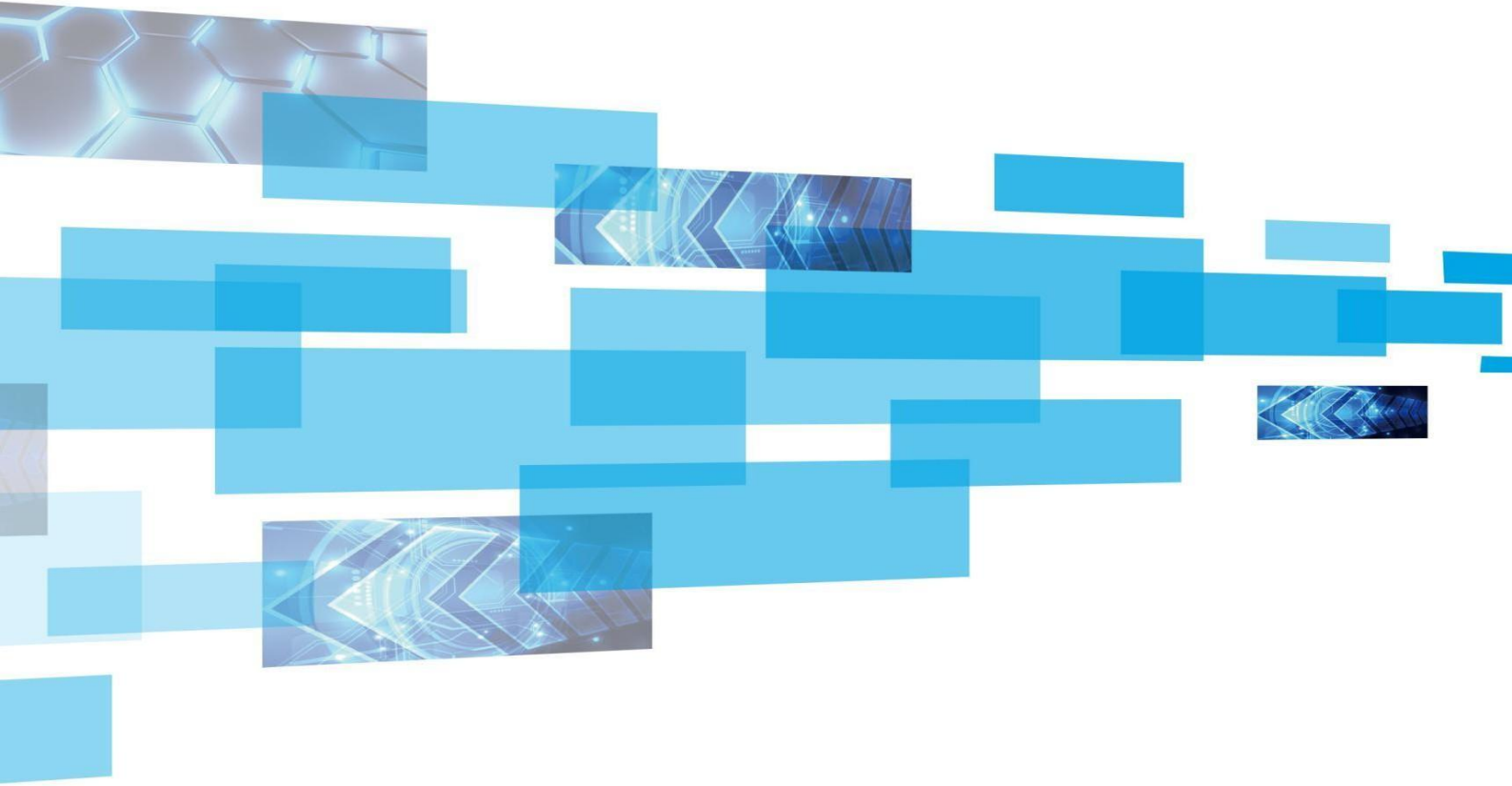


FPGA Receiving Card

D60-12



Product specification

Version: Ver.1.0

Buy website address: <https://reissopto-led.com/products/sysolution-d60-12-fpga-led-display-receiving-card>

Statement

Dear user friend, thanks for choosing SHENZHEN SYSOLUTION TECHNOLOGY CO.,LTD (hereinafter referred to as Xixun Technology) as your LED advertising equipment control system. The main purpose of this document is to help you quickly understand and use the product. We strive to be precise and reliable when writing the document, and the content may be modified or changed at any time without notice.

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Update Record

| NO. | Version No. | Updates | Revision Date |
|-----|-------------|---------------|---------------|
| 1 | Ver.1.0 | Initial issue | 2022.11.09 |

The document is subject to change without prior notice.

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Product Introduction

D60-12 is a standard receiving card launched by Xixun Technology. It adopts 12 standard HUB75E interfaces and supports up to 24 groups of RGB parallel data. Load up to 512X384 pixels; It has strong processing capacity, super stable performance and high cost performance.

Application scenarios

It can be widely used in the high-end display field with high requirements, and has significant advantages in the application scenarios such as LED screen rental, TV live broadcast, LED screen for large-scale activities, and high-end engineering channel projects.

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Load Capacity

| Three parallel lines (RGB) | Data interface/quantity | Drive | Maximum load (Pixels) | Brightness correction band load (Pixel) | Chromaticity correction with load (Pixels) |
|----------------------------|-------------------------|---------|-----------------------|---|--|
| 24 group | HUB75E/12 | Routine | 512*320 | 512*256 | 256*320 |
| | | PWM | 512*384 | 512*256 | 256*320 |

| Number of cascade cards | Support scan line | | |
|-------------------------|-------------------|--|--|
| ≤1000PCS | 1-64 sweep | | |

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Function Definition

| Function | Instructions |
|--------------------------------|--|
| Improved Display Effect | <ol style="list-style-type: none"><li data-bbox="630 526 1348 1108">1. Support by lighting chrominance correction: with the correction software, the brightness and chrominance of each light point on the large screen can be corrected, effectively eliminating color difference, so that the brightness and chrominance of the display can reach a high degree of consistency, and improve the picture quality of the display.<li data-bbox="630 1142 1348 1332">2. Support multiple display effects schemes: With LedSet4.0 software to achieve refresh priority and grayscale priority effects.<li data-bbox="630 1366 1348 1568">3. Support screen rotation by 90 ° multiple: With the LedSet4.0 software to realize, it can rotate the screen of the receiving card by 90° multiple.<li data-bbox="630 1601 1348 1870">4. Support screen zoom function: With LedSet4.0 software, the receiving card pixels can be scaled by multiples, and the screen can be enlarged and reduced. |

| | |
|---|---|
| <p style="text-align: center;">Improved Operability</p> | <ol style="list-style-type: none"> 1. Support receiving card serial number detection: Cooperate with the network debugging function of LedSet4.0 software, the receiving card number and network port information will be displayed on the target box, and the user can obtain the location number and connection line of the receiving card. 2. Support data interface customization : With LedSet 3.0 software, the output data of the receiving card can be detected and edited. 3. Supports the construction of complex box: With the advanced layout of LedSet4.0 software, you can quickly arrange and structure the box modules. 4. Supports the construction of complex large screens: In the complex display connection with LedSet4.0 software, the boxes can be quickly arranged and structured arbitrarily. |
| <p style="text-align: center;">Improved Hardware Stability</p> | <ol style="list-style-type: none"> 1. Network port hot backup: Network ports increase the reliability of serial connection of the receiving card through the loop connection of the main and standby network cables. When one |

| | |
|--|---|
| | <p>of the main and standby series lines fails, the other can ensure the normal display of the screen.</p> <p>2. Support hardware reset function: The receiving card can restart the online hardware by itself after the hardware online upgrade is completed.</p> |
| <p>Intelligent Software Upgrade</p> | <p>1. Support receiving card configuration parameter readback: Can read back the current receiving card configuration parameters on LedSet 3.0.</p> <p>2. Support network cable bit error rate detection: On LedSet 3.0, the quality of the network cable communication signal connected to the system hardware can be monitored in real time to quickly judge the quality of the network cable and troubleshoot.</p> <p>3. Communication monitoring function: Monitor the working status of the receiving card in real time on LedSet 3.0.</p> |

Output Interface Definition

24 parallel data interface definitions



JP1—JP12 Data Interface Definition

| Description | Definition | Pin | Pin | Definition | Description |
|-----------------|------------|-----|-----|------------|-----------------|
| RGB Data output | R | 1 | 2 | G | RGB Data output |
| | B | 3 | 4 | GND | ground |
| | R | 5 | 6 | G | RGB Data output |

| | | | | | |
|---------------------------|-----|----|----|-----|----------------------|
| | B | 7 | 8 | HE | Line decoding signal |
| Line decoding signal | HA | 9 | 10 | HB | |
| | HC | 11 | 12 | HD | |
| Shift clock output | CLK | 13 | 14 | LAT | Latch signal output |
| Display enable (remarks1) | OE | 15 | 16 | GND | ground |

Note 1: Pin 15 is the display enable pin. When PWM chip is used, it is GCLK signal.

J16 Interface definition

| Definition | Pin | Pin | Definition |
|------------|-----|-----|------------|
| +5V | 1 | 2 | GND |
| FLS_CS | 3 | 4 | FLS_DO |
| FLS_CLK | 5 | 6 | FLS_DI |
| PROGRAM_B | 7 | 8 | mCONF_DONE |
| GND | 9 | 10 | +5V |

J12 Indicator interface definition

| Pin | 1 | 2 | 3 | 4 | 5 |
|------------|----------|------|-------|----------|-------|
| Definition | GND/KEY- | KEY+ | LEDR- | VCC/LED+ | LEDG- |

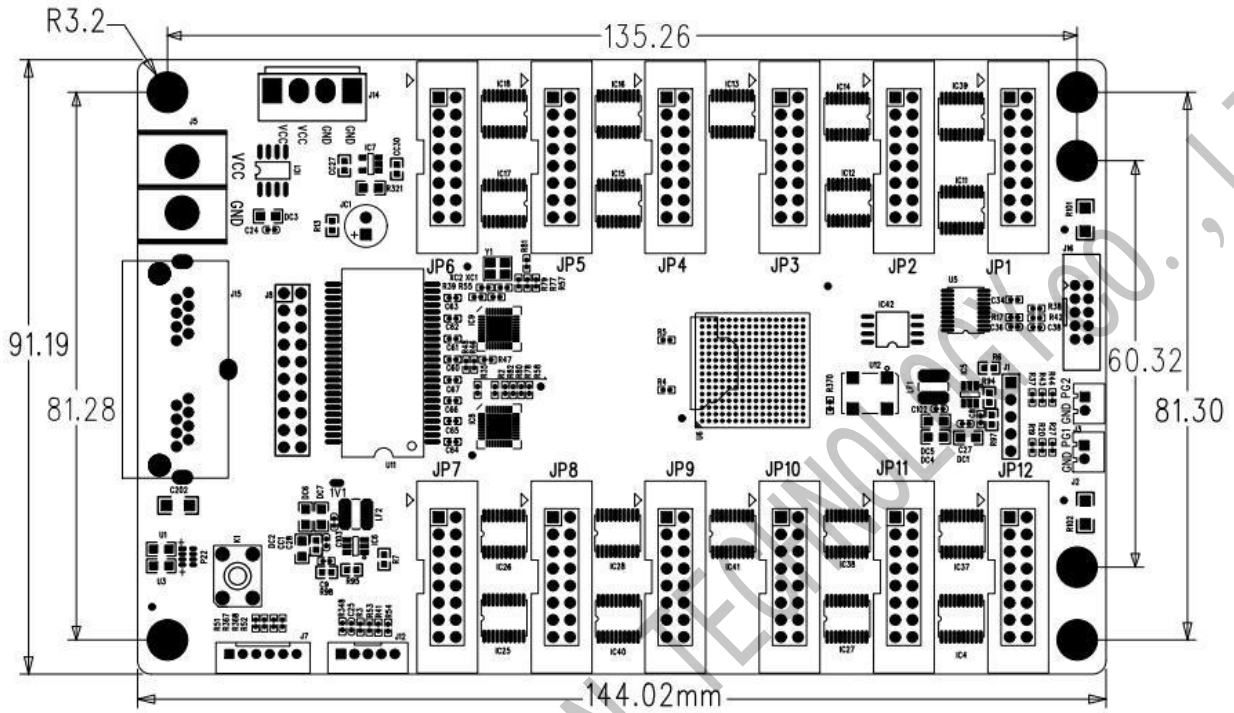
J14 Power socket definition

| Pin | 1 | 2 | 3 | 4 |
|------------|-----|-----|-----|-----|
| Definition | VCC | VCC | GND | GND |

Indicator Description

| Indicator | Location | State | Description |
|-----------------------------|----------|--------------------------------|---|
| Status indicator (green) | U1 | Flashes evenly and slowly | The receiving card works normally, the network cable is connected normally, and there is a DVI signal input. |
| | | Flashes evenly and quickly | The receiving card works normally, the network cable is connected normally, and there is a DVI signal input. |
| | | Off | No Gigabit signal |
| | | 3 flashes quickly at intervals | The receiving card works normally, the network cable circuit is in connection, and there is a DVI signal input. |
| Status indicator (red) | U3 | On | Normal power supply |

Dimensions



Unit: mm

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Working Parameters

| | | |
|---------------------------|----------------------------------|---------------|
| Electrical parameters | Input voltage | DC3.5-5.5V |
| | Rated current | 0.6A |
| | Rated power | 3W |
| Working environment | Working temperature | -20°C - 70°C |
| | Working humidity | 10%RH-90%RH |
| Storage environment | Working temperature | -25°C ~ 125°C |
| Board size | 144.02mmX91.19mm | |
| Net weight | 100.8g | |
| Certification Information | RoHS Compliant, CE-EMC Compliant | |

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Note

1. Must be used in accordance with this usage requirement.
2. Installation and commissioning must be done by professionals and must be anti-static.
3. Pay attention to waterproof and dust removal.



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