

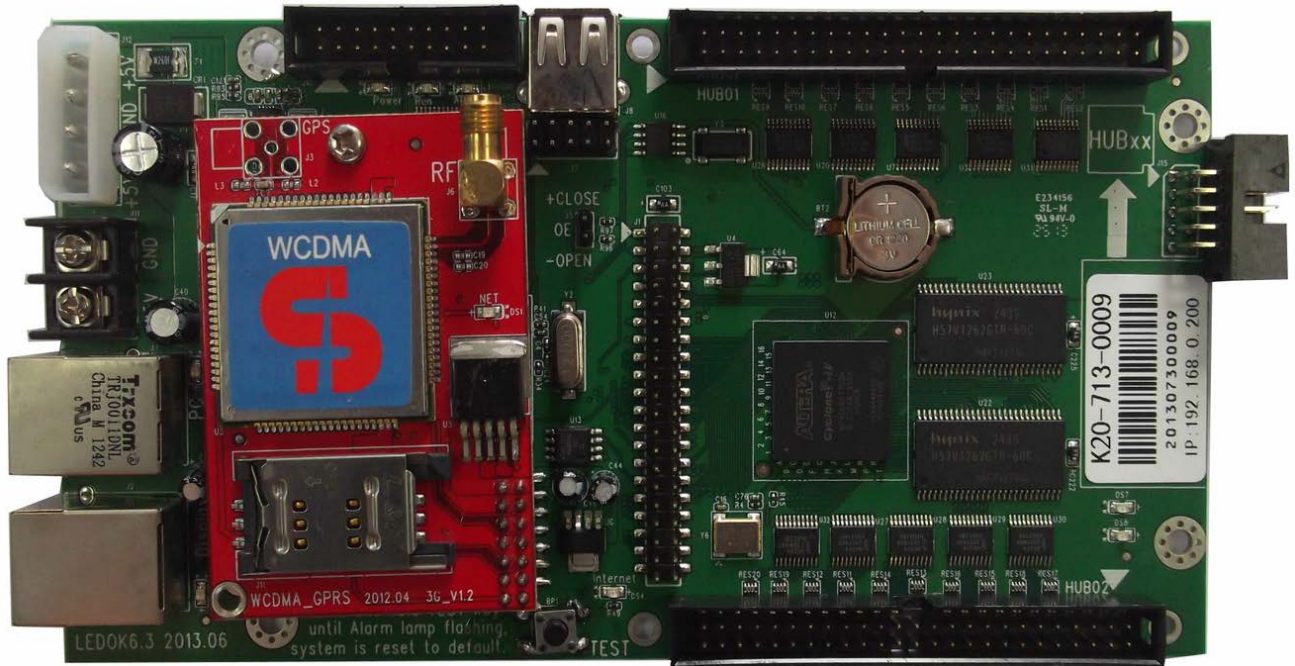


Asynchronous Sending card K20 Instructions

Version1.0

2013.8.15

1. Product picture and functions introduction



Sending card K20 has following traits:

1. Video hardware decoding to make sure smoothly displaying, while M-series and A-series controller supports software decoding.
2. Support 4096 gray level for red, green and blue.
3. Integrates 3G modem to realize wireless communication, easy to install it and fits for centralized management via internet.
4. One card support maximum pixels 640x480 pixels
5. One sending card supports more than one screen but each screen has the same size, to realize display same content in the same time
6. Supporting read back HCP1 file from led controller
7. Intelligent connection, that is exchange receiving cards in one screen without setup again, the receiving cards will display the content after exchanging.
8. M-series and A-series controller only support 1, 2, 4, 8, 16 scan types, while K-series support random scan types within 1/16 scan, like 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 scan types.
9. Support driver IC with PWM, such as MBI5041
10. One sending card can connect one HUB, will save one pc of receiving card
11. It has same installation holes with synchronous controller, so it is easy to change controller
12. Totally new design, setup controller through software in PC



2. Output interface definition

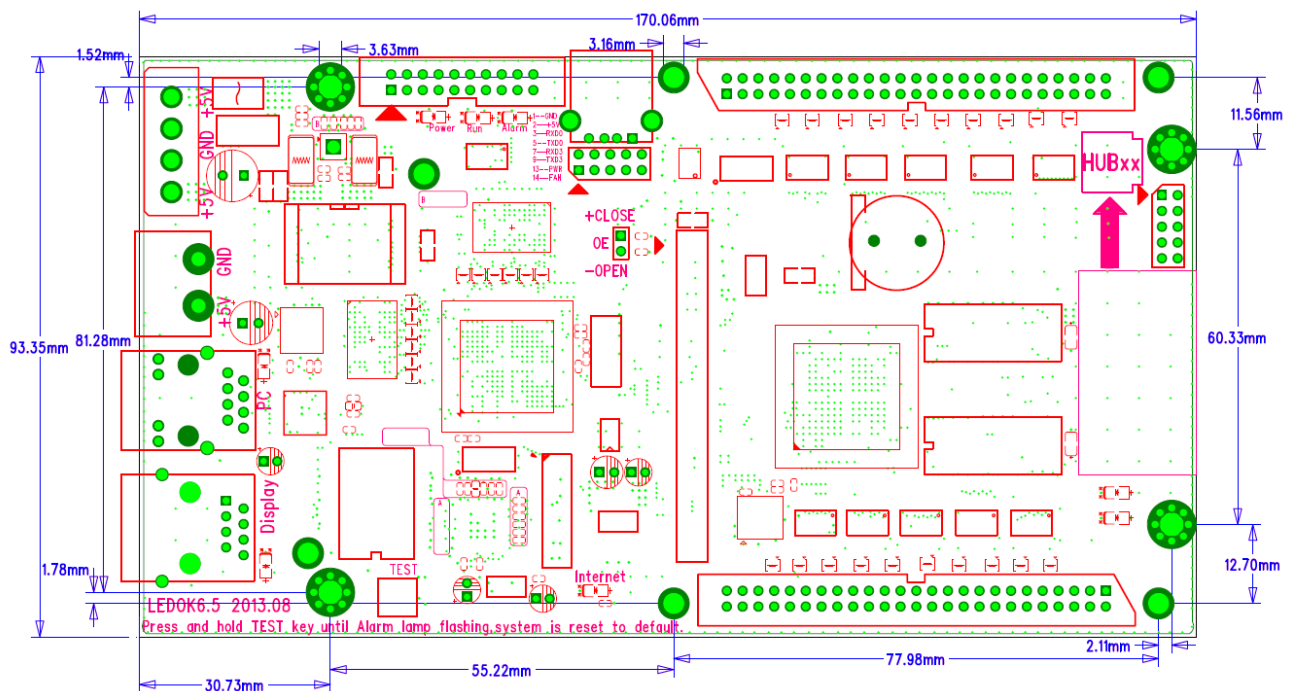
Sending card's output is RGB 50pin interface, has 8 groups of RGB data, following is the definition:

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 31 | 33 | 35 | 37 | 39 | 41 | 43 | 45 | 47 | 49 |
| GND | GND | GND | NC | G8 | NC | G7 | NC | G6 | NC | G5 | NC | G4 | NC | G3 | NC | G2 | NC | G1 | D | B | LAT | OE | VCC | VCC |
| VCC | VCC | SR | B8 | R8 | B7 | R7 | B6 | R6 | B5 | R5 | B4 | R4 | B3 | R3 | B2 | R2 | B1 | R1 | C | A | CLK | GND | GND | GND |
| 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 |

Sensor interface is 20Pin (J10), definition as following:

| | | | | | | | | | |
|-----|------|------|------|------|----|----|----|----|-----|
| 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 |
| GND | RXD1 | TXD1 | RXD2 | TXD2 | | | | | VCC |
| VCC | | | | | | | | | GND |
| 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |

3. Dimension



4. Working conditions

| Standard | Minimum | Maximum | Unit |
|---------------------|---------|---------|--------|
| Limiting Voltage | 3 | 6 | V |
| Working voltage | 3.3 | 5.5 | V |
| Working current | 0.8 | - | A |
| Working temperature | -20 | 60 | degree |
| Working humidity | 10 | 90 | % |