



Shenzhen Mooncell Electronics Co., Ltd

FPGA Receiving Card

L8S Product Specifications



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Updates History

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<i>V3.0</i>	<i>31/03/2020</i>	<i>First Edition</i>
<i>V3.1</i>	<i>21/012020</i>	<i>Parameters Edited</i>



1 Product Overview

Product Introduction

*L8S is a small sized receiving card that fully researched and developed by Mooncell; it adopted the high-precision 120 PIN connector; it can supports the maximum 32 groups of the parallel connection data;the maximum loading capacity could reach up to 256*512 pixels; with strong processing ability, supper reliability and high competitive price.*

Product Features

- *It features the small size and thickness, saving a lot more space for the narrow cabinet and space of the led strip(bar).*
- *It features high precision connector, which is dust-proof & shock proof; with high reliability and stability.*
- *It supports dual card backup function,which has enhanced the reliability and stability.*
- *With strong LED Driver IC compatibility.*

Application Scenarios

It could be widely used for high-end LED display area that requires high standards; and has significant advantages in application scenarios such as led rental display, TV Broadcast, LED display for respectable Event,High-end project,etc.



2 Function Introduction

Displaying Effect

<i>It supports pixel level brightness and Chroma Calibration</i>	<i>Using it with the Mooncell Calibration Software to calibrate each one of the pixels on its brightness and Chroma. It can effectively eliminate the Chromatic aberration so as to enhance its consistency of the brightness and Chroma to a high level and result in a better displayed effects.</i>
<i>Multiple Solutions of the Displayed Effects are Supported</i>	<i>Using it with Monncell AutoLED Software, the Refresh and Grey Scale performances are able to take the precedence over other settings.</i>
<i>The Images on the led screen can be rotated 90 degree in a factor of multiple times</i>	<i>Using it with Mooncell AutoLED Software.</i>
<i>The images can be zoomed in or out</i>	<i>Using it with Mooncell AutoLED</i>

Enhanced Operability:

<i>The Receiving Card is Supported to detect its own Sequence number</i>	<i>Using the Network Port testing function on Mooncell AutoLED Software, the receiving card serial number and the Network Port Information will be displayed on the target cabinet. Users will be able to get to know the locations of the receiving cards as well as its Connection diagram.</i>
<i>Data Port User-Defined is supported</i>	<i>Using it with the Mooncell AutoLED Software, you can detect and edit the output</i>



	<i>data of the receiving cards.</i>
<i>To build up a complicated cabinet is supported</i>	<i>On AutoLED Software, there is an ‘Advanced Setting’, from here you can quickly arrange or structure the modules at your option.</i>
<i>To structure a complicated Led Screen is supported</i>	<i>On AutoLED Software, there is a “Complicated Led Screen Connection”, from here you can quickly arrange or structure the cabinet modules on your option.</i>
<i>Intelligent Module is supported(Customized)</i>	<i>The Intelligent Module consists of Flash and MCU. The Flash can reserve the calibration data and information of the PCB Board. The MCU can be communicated with the receiving cards so as to detect the temperature, voltage and wiring connectivity of each module (on a module-level: module by module). With Intelligent Module, the monitor cards are not necessary for the Monitor Users, which means you can save a lot more space on the cabinets.</i>
<i>Module Self-Calibrated is supported(Customized)</i>	<i>When a module is replaced, the receiving card will automatically read the ID and its calibration data of the new one once the electricity power is connected, and the data will be reserved to the Flash.</i>

Hardware Stability



<i>Ethernet Cable Backup(Hot Backup)</i>	<i>The main cable will be having the loop connection. If there's one cable breaks then still there will have another one to make sure the led display work properly.</i>
	<i>Dual receiving cards backup is supported(Dual Circuit backup design) Customized :when the main working receiving card fails, the other one (backup) will take its job to keep the led display working properly.</i>

Smart Software and Hardware Stability

<i>The receiving card can read the configuration data back from where it has been stored</i>	<i>You will be able to do this on Mooncell AutoLED Software.</i>
<i>It supports to detect the error rates of the network cable</i>	<i>On the Mooncell AutoLED Software, you can detect the network cable connectivity in real time to tell the condition of the network cables, so that you can get rid of any errors immediately.</i>
<i>Communication Monitoring Function</i>	<i>On Mooncell AutoLED Software, you can monitor the Working Status of the receiving cards in real time.</i>
<i>Dual Power Supplies Backup is supported</i>	<i>2 Power Supplies can be connected simultaneously and the working status can be detected. Whenever there's a power supply failure, it can be detected, the system then will automatically decrease the brightness of the led screen so</i>



	<i>that it can still keep working properly</i>
<i>LCD Module is supported(Customized)</i>	<i>The LCD Module can be connected to the HUB board to display the temperature, voltage, single running time and total running time of the receiving cards.</i>
<i>It supports to detect the voltage</i>	<i>It will detects the voltage status of the receiving cards.</i>
<i>It supports to detect the temperature</i>	<i>The operating temperature of the receiving cards could be detected.</i>
<i>It supports to detect the power status</i>	<i>The power status of the power supplies could be detected.</i>
<i>It supports the reset function</i>	<i>Once the online upgrading finished, it could automatically reset the hardware.</i>



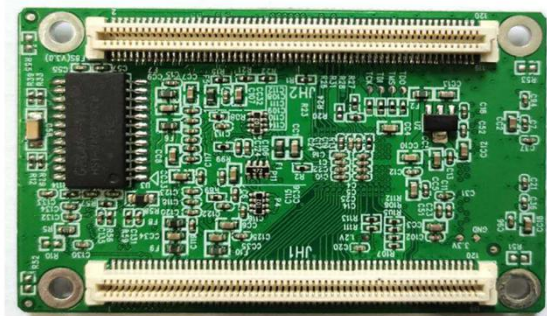
3 Product Parameters

Basic Parameters

RGB Parallel	The Maximum Loading Capacity(Pixels)	Loading Capacity After lightness Calibrating (Pixels)	Loading Capacity after Color Calibrating(Pixels)
32 Groups	256*512	256*512	256*352

Single Network Pot Cascading Quantity	Scanning Lines Supported		
≤1000PCS	1-64 Scan		

Hardware Introduction



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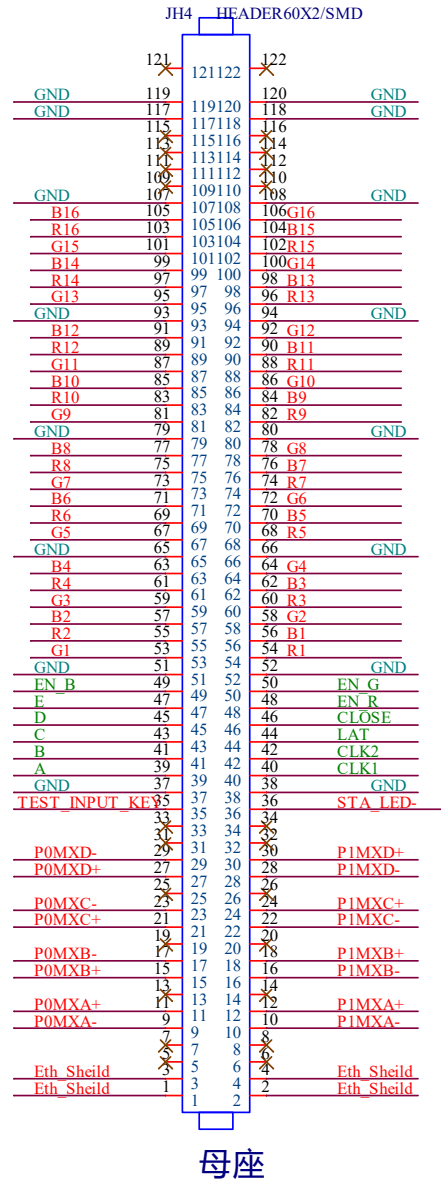
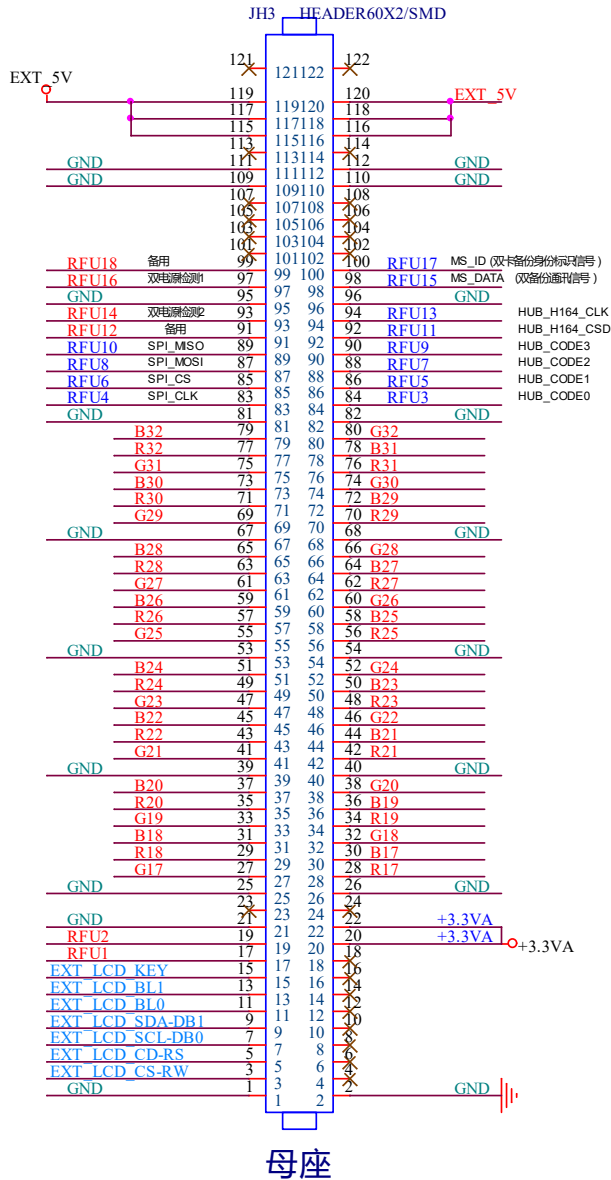
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Output Port Definition

Port Definition of the 32 Groups of parallel connection data



JH1 Definition:

illustration	Definition	PIN	PIN	Definition	ILLUTRTION
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	<i>GND</i>	<i>1</i>	<i>2</i>	<i>GND</i>	
<i>LCD Data Signal</i>	<i>EXT_LCD_SDA</i>	<i>9</i>	<i>10</i>	<i>NC</i>	
<i>LCD Backlight Signal 1</i>	<i>EXT_LCD_BL0</i>	<i>11</i>	<i>12</i>	<i>NC</i>	
<i>LCD Backlight Signal 2</i>	<i>EXT_LCD_BL1</i>	<i>13</i>	<i>14</i>	<i>NC</i>	
<i>LCD Control KEY</i>	<i>EXT_LCD_KEY</i>	<i>15</i>	<i>16</i>	<i>NC</i>	
<i>Extension Port</i>	<i>RFU1</i>	<i>17</i>	<i>18</i>	<i>NC</i>	
	<i>RFU2</i>	<i>19</i>	<i>20</i>	<i>3.3V_LED</i>	<i>3.3V Subsidiary Output</i>
	<i>GND</i>	<i>21</i>	<i>22</i>		
	<i>NC</i>	<i>23</i>	<i>24</i>	<i>NC</i>	
	<i>GND</i>	<i>25</i>	<i>26</i>	<i>GND</i>	
	<i>G17</i>	<i>27</i>	<i>28</i>	<i>R17</i>	
	<i>R18</i>	<i>29</i>	<i>30</i>	<i>B17</i>	
	<i>B18</i>	<i>31</i>	<i>32</i>	<i>G18</i>	
	<i>G19</i>	<i>33</i>	<i>34</i>	<i>R19</i>	
	<i>R20</i>	<i>35</i>	<i>36</i>	<i>B19</i>	
	<i>B20</i>	<i>37</i>	<i>38</i>	<i>G20</i>	
	<i>GND</i>	<i>39</i>	<i>40</i>	<i>GND</i>	
	<i>G21</i>	<i>41</i>	<i>42</i>	<i>R21</i>	
	<i>R22</i>	<i>43</i>	<i>44</i>	<i>B21</i>	
	<i>B22</i>	<i>45</i>	<i>46</i>	<i>G22</i>	
	<i>G23</i>	<i>47</i>	<i>48</i>	<i>R23</i>	
	<i>R24</i>	<i>49</i>	<i>50</i>	<i>B23</i>	
	<i>B24</i>	<i>51</i>	<i>52</i>	<i>G24</i>	
	<i>GND</i>	<i>53</i>	<i>54</i>	<i>GND</i>	
	<i>NC</i>	<i>55</i>	<i>56</i>	<i>NC</i>	
	<i>NC</i>	<i>57</i>	<i>58</i>	<i>NC</i>	
	<i>NC</i>	<i>59</i>	<i>60</i>	<i>NC</i>	
	<i>NC</i>	<i>61</i>	<i>62</i>	<i>NC</i>	
	<i>NC</i>	<i>63</i>	<i>64</i>	<i>NC</i>	
	<i>NC</i>	<i>65</i>	<i>66</i>	<i>NC</i>	
	<i>GND</i>	<i>67</i>	<i>68</i>	<i>GND</i>	
	<i>NC</i>	<i>69</i>	<i>70</i>	<i>NC</i>	



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	NC	71	72	NC	
	NC	73	74	NC	
	NC	75	76	NC	
	NC	77	78	NC	
	NC	79	80	NC	
	GND	81	82	GND	
<i>Function Extension Port (Intelligent Module, Flash ports are recommended)</i>	RFU4	83	84	RFU3	<i>Function Extension Port (Intelligent Module, Flash ports are recommended)</i>
	RFU6	85	86	RFU5	
	RFU8	87	88	RFU7	
	RFU10	89	90	RFU9	
<i>CS Signal of the LCD</i>	EXT_LCD_CS	3	4	NC	
<i>RS Signal of the LCD</i>	EXT_LCD_RS	5	6	NC	
<i>LCD Clock Signal</i>	EXT_LCD_SCL	7	8	NC	
<i>LCD Data Signal</i>	EXT_LCD_SDA	9	10	NC	
<i>LCD Backlight Signal 1</i>	EXT_LCD_BL0	11	12	NC	
<i>LCD Backlight Signal 2</i>	EXT_LCD_BL1	13	14	SWDIO	
<i>LCD Control KEY</i>	EXT_KEY	15	16	NC	
<i>Extension Port</i>	RFU1	17	18	SWCLK	
	RFU2	19	20	3.3V_LED	<i>3.3V Subsidiary Output</i>
	GND	21	22		
	NC	23	24	NC	
	GND	25	26	GND	
	G17	27	28	R17	
	R18	29	30	B17	
	B18	31	32	G18	
	G19	33	34	R19	
	R20	35	36	B19	



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	B20	37	38	G20	
	GND	39	40	GND	
	G21	41	42	R21	
	R22	43	44	B21	
	B22	45	46	G22	
	G23	47	48	R23	
	R24	49	50	B23	
	B24	51	52	G24	
	GND	53	54	GND	
	G25	55	56	R25	
	R26	57	58	B25	
	B26	59	60	G26	
	G27	61	62	R27	
	R28	63	64	B27	
	B28	65	66	G28	
	GND	67	68	GND	
	G29	69	70	R29	
	R30	71	72	B29	
	B30	73	74	G30	
	G31	75	76	R31	
	R32	77	78	B31	
	B32	79	80	G32	
	GND	81	82	GND	
Extension Port	RFU4	83	84	RFU3	Extension Port
	RFU6	85	86	RFU5	
	RFU8	87	88	RFU7	
	RFU10	89	90	RFU9	
	RFU12	91	92	RFU11	
	RFU14	93	94	RFU13	
	GND	95	96	GND	
Extension Port	RFU16	97	98	RFU15	Extension Port
	RFU18	99	100	RFU17	
	NC	101	102	NC	
	NC	103	104	NC	
	NC	105	106	NC	
	NC	107	108	NC	
	GND	109	110	GND	



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	<i>GND</i>	<i>111</i>	<i>112</i>	<i>GND</i>	
	<i>NC</i>	<i>113</i>	<i>114</i>	<i>NC</i>	
<i>Input Power VCC</i> <i>3.3V-5.5V(recommended)</i>	<i>VCC</i>	<i>115</i>	<i>116</i>	<i>VCC</i>	<i>Input Power</i> <i>VCC</i> <i>3.3V-5.5V(rec</i> <i>ommended)</i>
	<i>VCC</i>	<i>117</i>	<i>118</i>	<i>VCC</i>	
	<i>VCC</i>	<i>119</i>	<i>120</i>	<i>VCC</i>	

JH2 Definition:

<i>Illustration</i>	<i>Definition</i>	<i>PIN</i>	<i>PIN</i>	<i>Definition</i>	<i>Illustration</i>
<i>External Shield Ground</i>	<i>Eth_Sheid</i>	<i>1</i>	<i>2</i>	<i>Eth_Sheild</i>	<i>External Shield Ground</i>
<i>External Shield Ground</i>	<i>Eth_Sheid</i>	<i>3</i>	<i>4</i>	<i>Eth_Sheild</i>	<i>External Shield Ground</i>
	<i>NC</i>	<i>5</i>	<i>6</i>	<i>NC</i>	
	<i>NC</i>	<i>7</i>	<i>8</i>	<i>NC</i>	
<i>Gigabyte Ethernet Port</i>	<i>P0 MXA+</i>	<i>9</i>	<i>10</i>	<i>P1 MXA+</i>	<i>Gigabyte Ethernet Port</i>
	<i>P0 MXA-</i>	<i>11</i>	<i>12</i>	<i>P1 MXA-</i>	
	<i>NC</i>	<i>13</i>	<i>14</i>	<i>NC</i>	
	<i>P0 MXB+</i>	<i>15</i>	<i>16</i>	<i>P1 MXB+</i>	
	<i>P0 MXB-</i>	<i>17</i>	<i>18</i>	<i>Port2_B-</i>	
	<i>NC</i>	<i>19</i>	<i>20</i>	<i>NC</i>	
	<i>P0 MXC+</i>	<i>21</i>	<i>22</i>	<i>P1 MXC+</i>	
	<i>P0 MXC-</i>	<i>23</i>	<i>24</i>	<i>P1 MXC-</i>	
	<i>NC</i>	<i>25</i>	<i>26</i>	<i>NC</i>	
	<i>P0 MXD+</i>	<i>27</i>	<i>28</i>	<i>P1 MXD+</i>	
<i>P0 MXD-</i>	<i>29</i>	<i>30</i>	<i>P1 MXD-</i>		
	<i>NC</i>	<i>31</i>	<i>32</i>	<i>NC</i>	
	<i>NC</i>	<i>33</i>	<i>34</i>	<i>NC</i>	
<i>Testing Key</i>	<i>TEST_INPUT_KEY</i>	<i>35</i>	<i>36</i>	<i>STA_LED-</i>	<i>Operating Indicator(ACTIVE LOW)</i>
	<i>GND</i>	<i>37</i>	<i>38</i>	<i>GND</i>	
<i>Line Decoding Signal</i>	<i>HA</i>	<i>39</i>	<i>40</i>	<i>CLK_1</i>	<i>First Shift Clock Output</i>
<i>Line Decoding Signal</i>	<i>HB</i>	<i>41</i>	<i>42</i>	<i>CLK_2</i>	<i>Second Shift Clock output</i>



Line Decoding Signal	HC	43	44	LAT	Latch Signal output
Line Decoding Signal	HD	45	46	CTRL	Blanking Control Signal
Line Decoding Signal	HE	47	48	OE_R	Display enable (when OE_R, G, B are not controlled separately, use OE_R)
Display enable (when OE_R, G, B are not controlled separately, use OE_R)	OE_B	49	50	OE_G	
	GND	51	52	GND	
	G1	53	54	R1	
	R2	55	56	B1	
	B2	57	58	G2	
	G3	59	60	R3	
	R4	61	62	B3	
	B4	63	64	G4	
	GND	65	66	GND	
	G5	67	68	R5	
	R6	69	70	B5	
	B6	71	72	G6	
	G7	73	74	R7	
	R8	75	76	B7	
	B8	77	78	G8	
	GND	79	80	GND	
	G9	81	82	R9	
	R10	83	84	B9	
	B10	85	86	G10	
	G11	87	88	R11	
	R12	89	90	B11	
	B12	91	92	G12	
	GND	93	94	GND	
	G13	95	96	R13	
	R14	97	98	B13	
	B14	99	100	G14	



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	<i>G15</i>	<i>101</i>	<i>102</i>	<i>R15</i>	
	<i>R16</i>	<i>103</i>	<i>104</i>	<i>B15</i>	
	<i>B16</i>	<i>105</i>	<i>106</i>	<i>G16</i>	
	<i>GND</i>	<i>107</i>	<i>108</i>	<i>GND</i>	
	<i>NC</i>	<i>109</i>	<i>110</i>	<i>NC</i>	
	<i>NC</i>	<i>111</i>	<i>112</i>	<i>NC</i>	
	<i>NC</i>	<i>113</i>	<i>114</i>	<i>NC</i>	
	<i>NC</i>	<i>115</i>	<i>116</i>	<i>NC</i>	
	<i>GND</i>	<i>117</i>	<i>118</i>	<i>GND</i>	
	<i>GND</i>	<i>119</i>	<i>120</i>	<i>GND</i>	



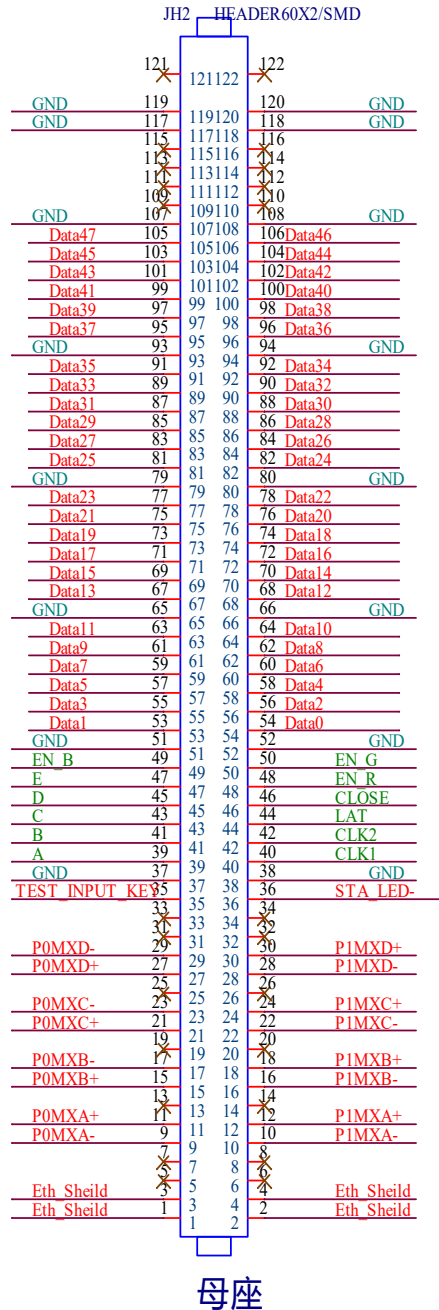
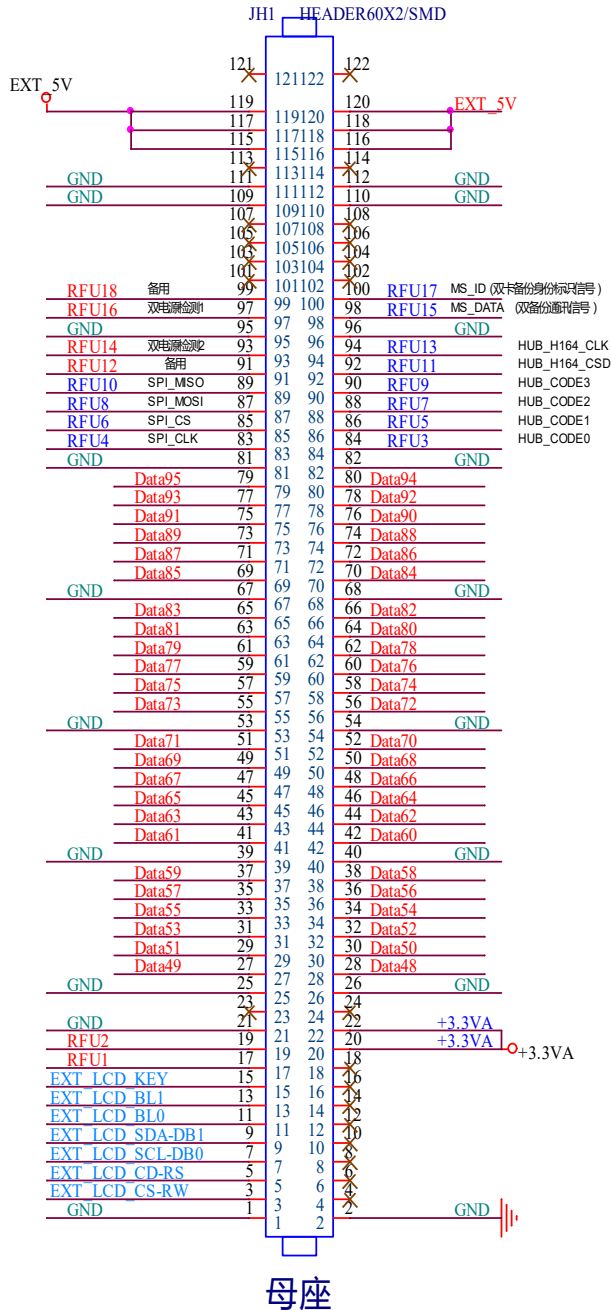
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96 Groups of Serial Connection Data Port



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JH1 Definition :

<i>Illustration</i>	<i>Definition</i>	<i>PI N</i>	<i>PI N</i>	<i>Definition</i>	<i>Illustration</i>
	GND	1	2	GND	
CS Signal of the LCD	EXT_LCD_CS	3	4	NC	
RS Signal of the LCD	EXT_LCD_RS	5	6	NC	
LCD Clock Signal	EXT_LCD_SCL	7	8	NC	
LCD Data Signal	EXT_LCD_SD A	9	10	NC	
LCD Backlight Signal 1	EXT_LCD_BL0	11	12	NC	
LCD Backlight Signal 2	EXT_LCD_BL1	13	14	SWDIO	
LCD Control KEY	EXT_KEY	15	16	NC	
Extension Port	RFU1	17	18	SWCLK	
	RFU2	19	20	3.3V_LED	3.3V Subsidiary Output
	GND	21	22		
	NC	23	24	NC	
	GND	25	26	GND	
	Data49	27	28	Data48	
	Data52	29	30	Data51	
	Data54	31	32	Data53	
	Data56	33	34	Data55	
	Data58	35	36	Data57	
	Data60	37	38	Data59	
	GND	39	40	GND	
	Data62	41	42	Data61	
	Data64	43	44	Data63	
	Data66	45	46	Data65	
	Data68	47	48	Data67	
	Data70	49	50	Data69	
	Data72	51	52	Data71	
	GND	53	54	GND	
	Data74	55	56	Data73	
	Data76	57	58	Data75	
	Data78	59	60	Data77	
	Data80	61	62	Data79	



	Data82	63	64	Data81	
	Data84	65	66	Data83	
	GND	67	68	GND	
	Data86	69	70	Data85	
	Data88	71	72	Data87	
	Data90	73	74	Data89	
	Data92	75	76	Data91	
	Data94	77	78	Data93	
	Data96	79	80	Data95	
	GND	81	82	GND	
<i>Extension Port</i>	RFU4	83	84	RFU3	<i>Extension Port</i>
	RFU6	85	86	RFU5	
	RFU8	87	88	RFU7	
	RFU10	89	90	RFU9	
	RFU12	91	92	RFU11	
	RFU14	93	94	RFU13	
	GND	95	96	GND	
<i>Extension Port</i>	RFU16	97	98	RFU15	<i>Extension Port</i>
	RFU18	99	100	RFU17	
	NC	101	102	NC	
	NC	103	104	NC	
	NC	105	106	NC	
	NC	107	108	NC	
	GND	109	110	GND	
	GND	111	112	GND	
	NC	113	114	NC	
<i>Input Power VCC 3.3V-5.5V(recommended)</i>	VCC	115	116	VCC	<i>Input Power VCC 3.3V-5.5V(recommende d)</i>
	VCC	117	118	VCC	
	VCC	119	120	VCC	



JH2 Definition :

<i>Illustration</i>	<i>Definition</i>	<i>PIN</i>	<i>PIN</i>	<i>Definition</i>	<i>Illustration</i>
<i>External Shield Ground</i>	<i>Eth_Sheid</i>	<i>1</i>	<i>2</i>	<i>Eth_Sheild</i>	<i>External Shield Ground</i>
<i>External Shield Ground</i>	<i>Eth_Sheid</i>	<i>3</i>	<i>4</i>	<i>Eth_Sheild</i>	<i>External Shield Ground</i>
	<i>NC</i>	<i>5</i>	<i>6</i>	<i>NC</i>	
	<i>NC</i>	<i>7</i>	<i>8</i>	<i>NC</i>	
<i>Gigabyte Ethernet Port</i>	<i>P0 MXA+</i>	<i>9</i>	<i>10</i>	<i>P1 MXA+</i>	<i>Gigabyte Ethernet Port</i>
	<i>P0 MXA-</i>	<i>11</i>	<i>12</i>	<i>P1 MXA-</i>	
	<i>NC</i>	<i>13</i>	<i>14</i>	<i>NC</i>	
	<i>P0 MXB+</i>	<i>15</i>	<i>16</i>	<i>P1 MXB+</i>	
	<i>P0 MXB-</i>	<i>17</i>	<i>18</i>	<i>Port2_B-</i>	
	<i>NC</i>	<i>19</i>	<i>20</i>	<i>NC</i>	
	<i>P0 MXC+</i>	<i>21</i>	<i>22</i>	<i>P1 MXC+</i>	
	<i>P0 MXC-</i>	<i>23</i>	<i>24</i>	<i>P1 MXC-</i>	
	<i>NC</i>	<i>25</i>	<i>26</i>	<i>NC</i>	
	<i>P0 MXD+</i>	<i>27</i>	<i>28</i>	<i>P1 MXD+</i>	
	<i>P0 MXD-</i>	<i>29</i>	<i>30</i>	<i>P1 MXD-</i>	
	<i>NC</i>	<i>31</i>	<i>32</i>	<i>NC</i>	
	<i>NC</i>	<i>33</i>	<i>34</i>	<i>NC</i>	
<i>Testing Key</i>	<i>TEST_INPUT_KEY</i>	<i>35</i>	<i>36</i>	<i>STA_LED-</i>	<i>Operating Indicator(ACTIVE LOW)</i>
	<i>GND</i>	<i>37</i>	<i>38</i>	<i>GND</i>	
<i>Line Decoding Signal</i>	<i>HA</i>	<i>39</i>	<i>40</i>	<i>CLK_1</i>	<i>First Shift Clock Output</i>
<i>Line Decoding Signal</i>	<i>HB</i>	<i>41</i>	<i>42</i>	<i>CLK_2</i>	<i>Second Shift Clock output</i>
<i>Line Decoding Signal</i>	<i>HC</i>	<i>43</i>	<i>44</i>	<i>LAT</i>	<i>Latch Signal output</i>
<i>Line Decoding Signal</i>	<i>HD</i>	<i>45</i>	<i>46</i>	<i>CTRL</i>	<i>Blanking Control Signal</i>
<i>Line Decoding Signal</i>	<i>HE</i>	<i>47</i>	<i>48</i>	<i>OE_R</i>	<i>Display enable (when OE_R, G, B are not controlled separately, use</i>
<i>Display enable</i>	<i>OE_B</i>	<i>49</i>	<i>50</i>	<i>OE_G</i>	



L8S Receiving Card Specification

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(when OE_R, G, B are not controlled separately, use OE_R)					OE_R)
	GND	51	52	GND	
	Data1	53	54	Data0	
	Data3	55	56	Data2	
	Data6	57	58	Data4	
	Data5	59	60	Data6	
	Data7	61	62	Data8	
	Data9	63	64	Data10	
	GND	65	66	GND	
	Data13	67	68	Data12	
	Data15	69	70	Data14	
	Data17	71	72	Data16	
	Data19	73	74	Data18	
	Data21	75	76	Data20	
	Data23	77	78	Data22	
	GND	79	80	GND	
	Data25	81	82	Data24	
	Data27	83	84	Data26	
	Data29	85	86	Data28	
	Data31	87	88	Data30	
	Data33	89	90	Data32	
	Data35	91	92	Data34	
	GND	93	94	GND	
	Data37	95	96	Data36	
	Data39	97	98	Data38	
	Data41	99	100	Data40	
	Data43	101	102	Data42	
	Data45	103	104	Data44	
	Data47	105	106	Data46	
	GND	107	108	GND	
	NC	109	110	NC	
	NC	111	112	NC	
	NC	113	114	NC	



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	NC	115	116	NC	
	GND	117	118	GND	
	GND	119	120	GND	

Extension Functions Design Reference:

Extension Port	Recommended Intelligent Module Port	Recommended Module Flash Port	Illustration
RFU1	Reserved	Reserved	Get it connected to the reserved PIN of the MCU
RFU2	Reserved	Reserved	Get it connected to the reserved PIN of the MCU
RFU3	HUB_CODE0	HUB_CODE0	Flash Control Port 1
RFU4	HUB_SPI_CLK	HUB_SPI_CLK	Clock Signal of the Serial Connection Port
RFU5	HUB_CODE1	HUB_CODE1	Flash Control Port 2
RFU6	HUB_SPI_CS	HUB_SPI_CS	CS signal of the serial connection port
RFU7	HUB_CODE2	HUB_CODE2	Flash Control Port 3
RFU8	/	HUB_SPI_MOSI	Module Flash the Store Data Input
	HUB_UART_TX	/	Intelligent Module TX Signal
RFU9	HUB_CODE3	HUB_CODE3	Flash Control Port 4
RFU10	/	HUB_SPI_MISO	Module Flash the Store Data Output
	HUB_UART_RX	/	Intelligent Module RX Signal
RFU11	HUB_H164_CSD	HUB_H164_CS D	74HC164 Data Signal
RFU12	/	/	/
RFU13	HUB_H164_CLK	HUB_H164_CLK	74HC164 Clock Signal
RFU14	POWER_STA1	POWER_STA1	Dual Power Supply Detecting



			<i>Signal 1</i>
<i>RFU15</i>	<i>MS_DATA</i>	<i>MS_DATA</i>	<i>Dual Card Backup Connection Signal</i>
<i>RFU16</i>	<i>POWER_STA2</i>	<i>POWER_STA2</i>	<i>Dual Power Supply detecting signal 2</i>
<i>RFU17</i>	<i>MS_ID</i>	<i>MS_ID</i>	<i>Dual card backup label signal</i>
<i>RFU18</i>	<i>HUB_CODE4</i>	<i>HUB_CODE4</i>	<i>Flash Control Port 5</i>



Indicator Illustration

<i>Indicator</i>	<i>Position</i>	<i>Status</i>	<i>Illustration</i>
<i>Status Indicator (Green)</i>	<i>U6</i>	<i>Flickering Slowly at a constant</i>	<i>The receiving card is working properly, The Ethernet Cable Connection is fine, No DVI Signal Input</i>
		<i>Flickering Fast at a constant</i>	<i>The receiving card is working properly, The Ethernet Cable Connection is fine, with DVI Signal Input</i>
		<i>It goes out</i>	<i>No Gigabit Ethernet Signal</i>
		<i>Fast Flickering 3 Times</i>	<i>The receiving card is working properly, The Ethernet Cable Loop Connection is fine, DVI Signal Input</i>
<i>Status Indicator</i>	<i>U5</i>	<i>Long Lasting On</i>	<i>Power is On</i>

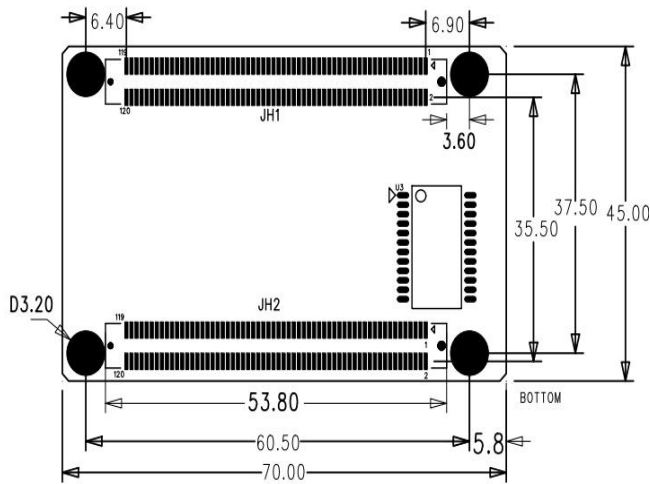
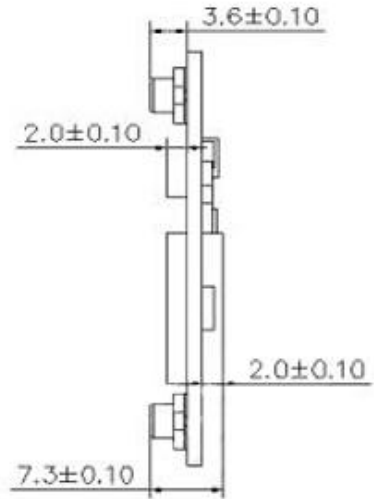
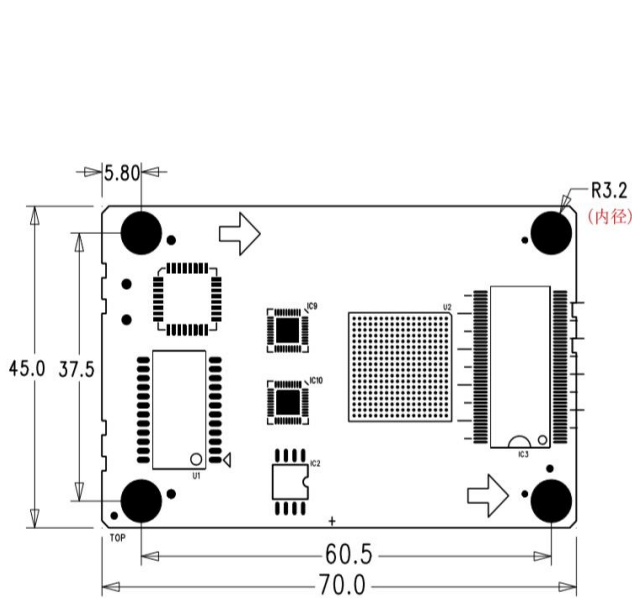
Dimensions



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4 Product Specifications

Specifications

<i>Electric Parameters</i>	<i>Input Voltage</i>	<i>DC3.5-5.5V</i>
	<i>Rated Current</i>	<i>0.6A</i>
	<i>Rated Power</i>	<i>3W</i>
<i>Operating Environment</i>	<i>Operating Temperature</i>	<i>-20°C - 70°C</i>
	<i>Operating Humidity</i>	<i>10%RH-90%RH</i>
<i>Storage Environment</i>	<i>Temperature</i>	<i>-25°C ~125°C</i>
<i>Dimensions</i>	<i>70mmX45mm</i>	
<i>Net Weight</i>	<i>18.3g</i>	
<i>Certifications</i>	<i>It conforms to RoHS and CE-EMC standards.</i>	

Precautions

1. *The testing (debugging) and installation should be done by the qualified professionals*
2. *Anti-Static, Water-Proof and Dust-Proof Required*

