科而美®
CHARMING
SINCE 2003
CHARMING Co., Ltd.

FPGA
Receiving Card

DY75 Product Specifications

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Updates History

File Version	Hardware Version	Released Date	Updates Records
V3.0	DY75 V1.2	05/08/2021	First Edition
V3.1	DY75 V2.0	25/112021	The hardware version is updated to V2.0, the size chart and size parameters are updated, the font format is adjusted, and the product image is updated
V3.2	DY75 V2.0	06/01/2022	The Maximum loading and brightness calibration loading updated to 768×256

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1 Product Overview

Product Introduction

*DY75 is a standard receiving card that is fully researched and developed by Mooncell; it adopted 16x HUB75D interfaces; it can supports the maximum 32 groups of the parallel connection data;the maximum loading capacity could reach up to 768*256 pixels; with strong processing ability, supper reliability and high competitive price.*

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.

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2 Function Introduction

Displaying Effect

It supports pixel level brightness and Chroma Calibration	*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.*
Multiple Solutions of the Displayed Effects are Supported	*Using it with Monncell AutoLED Software, the Refresh and Grey Scale performances are able to take the precedence over other settings.*
The Images on the led screen can be rotated 90 degree in a factor of multiple times	*Using it with Mooncell AutoLED Software.*
The images can be zoomed in or out	*Using it with Mooncell AutoLED*

Enhanced Operability:

The Receiving Card is Supported to detect its own Sequence number	*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.*
Data Port User-Defined is supported	*Using it with the Mooncell AutoLED Software, you can detect and edit the output data of the receiving cards.*
To build up a complicated cabinet is supported	*On AutoLED Software, there is an 'Advanced Setting', from here you can quickly arrange or structure the*

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	modules at your option.
To structure a complicated Led Screen is supported	*On AutoLED Software, there is a "Complicated Led Screen Connection", from here you can quickly arrange or structure the cabinet modules on your option.*

Hardware Stability

Ethernet Cable Backup(Hot Backup)	*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.*
	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.

Smart Software and Hardware Stability

The receiving card can read the configuration data back from where it has been stored	*You will be able to do this on Mooncell AutoLED Software.*
It supports to detect the error rates of the network cable	*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.*
Communication Monitoring Function	*On Mooncell AutoLED Software, you can monitor the Working Status of the receiving cards in real time.*

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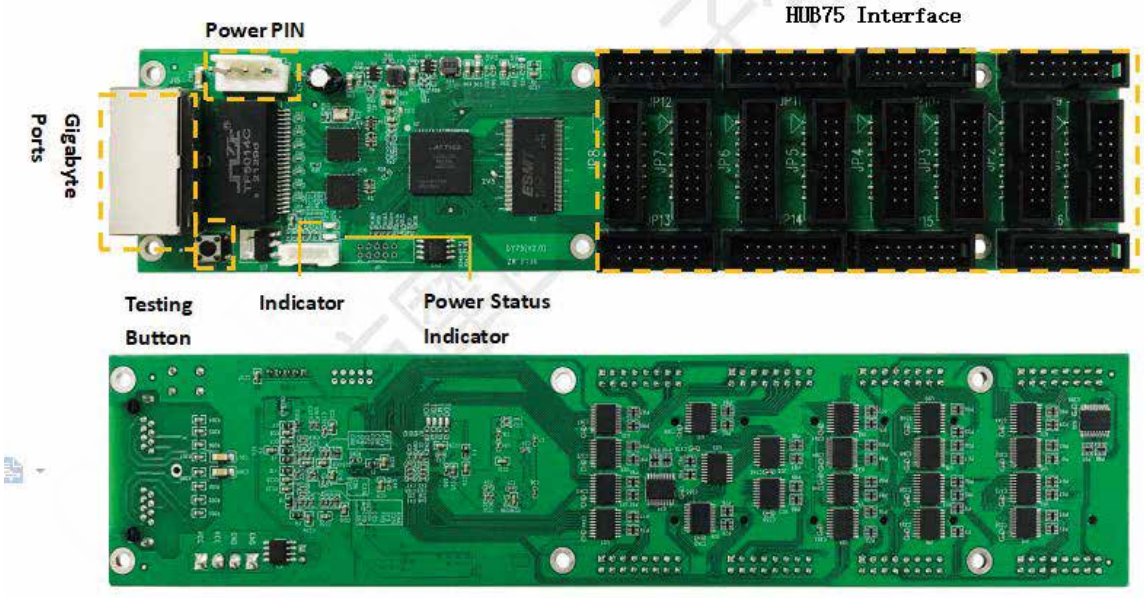
3Product Parameters

Basic Parameters

RGB Parallel	The Maximum Loading Capacity(Pixels)	Loading Capacity After lightness Calibrating （Pixels）	Loading Capacity after Color Calibrating(Pixels)
32 Groups	768*256	768*256	512*160

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

Hardware Introduction



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Output Port Definition

Port Definition of the 32 Groups of parallel connection data

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JP1-JP16 PIN Definition：

PIN#	1	3	5	7	9	11	13	15
Definition	R0	B0	R1	B1	A	C	CLK	OE
PIN#	2	4	6	8	10	12	14	16
Definition	G0	GND	G1	E	B	D	LAT	GND

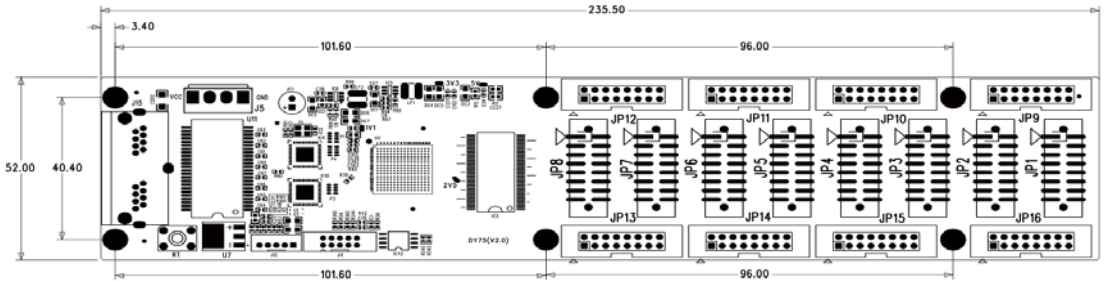
J12 Definition:

PIN#	1	2	3	4	5
Definition	GND\KEY-	KEY+	LEDR-	3V3\LED+	LEDG-

Indicator Illustration

Indicator	*Position*	*Status*	*Illustration*
Status Indicator (Green)	*U1*	*Flickering Slowly at a constant*	*The receiving card is working properly, The Ethernet Cable Connection is fine, No DVI Signal Input*
		Flickering Fast at a constant	*The receiving card is working properly, The Ethernet Cable Connection is fine, with DVI Signal Input*
		It goes out	*No Gigabit Ethernet Signal*
		Fast Flickering 3 Tunes	*The receiving card is working properly, The Ethernet Cable Loop Connection is fine, DVI Signal Input*
Status Indicator	*U3*	*Long Lasting On*	*Power is On*

Dimensions



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4Product Specifications

Specifications

Electric Parameters	Input Voltage	DC3.5-5.5V
	Rated Current	0.6A
	Rated Power	3W
Operating Environment	Operating Temperature	-20℃ - 70℃
	Operating Humidity	10%RH-90%RH
Storage Environment	Temperature	-25℃～125℃
Dimensions	235.5mmX52 mm	
Net Weight	106.7g	
Certifications	It conforms to RoHS and CE-EMC standards.	

Precautions

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

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