onbon 仰邦科技

BX-I1 SPEICIFICATION

Version：V1.0　　Release date：2020.05.13

DIRECTORY

Instruction

Thank you for purchasing our LED control card.Hope you can enjoy the excellent performance of this product.The LED control card is designed to meet international and industry standards, but if not properly operated, it may cause personal injury and property damage.In order to avoid possible hazards of the equipment and to benefit from your equipment as much as possible, please follow the instructions in this manual when installing and operating the product.

About software

It is not allowed to change,decompilation, disassemble, decrypt or reverse engineer the software installed on this product. All the above acts are illegal.

Features

- Size small , suitable for various transparent screens.
- Support MY9866, HBS1910, MT1804, MT1805, TX1816 etc normal chip

GUIDING

Safety notification

◆ This product rated working voltage 5V, voltage range 4V ~ 5.5V, please strictly guarantee the BX-I series power quality

◆ When you want to connect or unplug any signal cord or control card, make sure all power cords are unplugged beforehand.

◆ When you want to add hardware devices to the product or remove hardware devices from the product, please confirm all signal lines and electricity

◆ The source line has been removed beforehand.

◆ Before any hardware operation, please turn off the LED control card power and release

the LED control card by touching the ground surface

◆ Static electricity.

◆ Please use the product in a clean, dry and ventilated environment. Do not use the product in a high temperature or humidity environment.

◆ This product is an electronic product, please keep away from fire, water and inflammable and explosive dangerous goods.

◆ This product contains high pressure components. Please do not open the case or repair the equipment by yourself.

◆ Please turn off the power switch immediately and contact the dealer if you find any abnormal situation such as smoking or peculiar smell.

FUNCTIONS

Bx-i1 receiving card is a high-end receiving card with small size and large load, which is suitable for all kinds of full-color LED display screens and supports mainstream LED screen driver chips. It adopts the hub board connected to the display screen, which is dust-proof and shockproof, with high stability and reliability..Support Gigabit network playback mode, support asynchronous player YQ series products, with BX-VS/VSM and other sending card to present the best display effect. The new high refresh technology allows you to have ultra HD picture quality experience.Product structure is simple, easy to install, Easy operation is to achieve the best results, no need training.BX-i1 receiving card hardware system can be upgraded online to maximize user benefits.

Easy installation

Unified interface standard, the unified specification of the installation hole, support the connection of the external operation indicator lamp and the test button;2nos double Gigabit network port, support arbitrary exchange of input and output, convenient installation cascade.It supports film screen, glass screen and other LED displays, with less space and easier installation

Flexible interface

It adopts high-density connector interface, supports E-signal, support maximum64 Scan, 8 channels of RGB signal parallel output or 32 channels of serial output at most. Support any interface display data group exchange, RGB color sequence exchange, convenient for customers to flexibly adjust module layout.

More folio modes

Support 2 folio, 3 folio, 4 folio, folio width can be different.For example, 2 folio: 128 points in front, 64 points behind;Folio: 128 points in front, 128 points in the middle and 64 points behind.

Variable data trends

.Normal data flow from right to left by default.Data flow direction can be set as left to right, top to bottom and bottom to top according to the actual use of the customer site.Specific use, and LED module alignment direction corresponding.Right-to-left and top-down modes are recommended.

Support irregular screen

Support display data line offset, can be flexibly adjusted within the range of 0 to 511 points, depending on the specific load width, the maximum can be set 384 line height display offset or data path as the unit of offset, convenient configuration for irregular screen.

More scan mode

Match with LedshowTV software, support 64 scan, 32 scan, 16 scan, 8 scan, 4 scan and other kinds of straight and folding scanning fast configuration;Support no 138 line decoding, 595 line decoding, RT5958 line decoding and so on.Through intelligent scan function, support static screen, any scan mode from 2 scan to 32 scan.

Compatible with more chips

Support conventional 16 bit serial shift constant current driver chip, PWM chip, such as: common sun and moon, accumulation, micro, set up the north and other manufacturers of driver chip.

Superior display effect

Adopt new high brush technology, support high refresh high grayscale display effect, Can support 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536 grayscale display. Flexible display mode selection, suitable for outdoor, indoor various applications.work with LedshowTV software, through adjusting the display refresh rate, display mode and display ratio and other parameters, further improve the display quality, to meet customer shooting effect.

Adjust clock

Support shift clock from 10.42MHz to 31.25MHz self-regulation, adjustable duty cycle, clock phase, etc.It can satisfy the cascading characteristics of different modules, eliminate the rising points generated when some modules are cascading, and increase the loading width as much as possible on the premise of guaranteeing the refresh rate.

Blanking adjustment

By adjusting the line blanking time, line breaking time, level 1 graying and other features, further eliminate the effect of LED screen's virtual brightness, and perfectly display the text content.

Easy maintenance

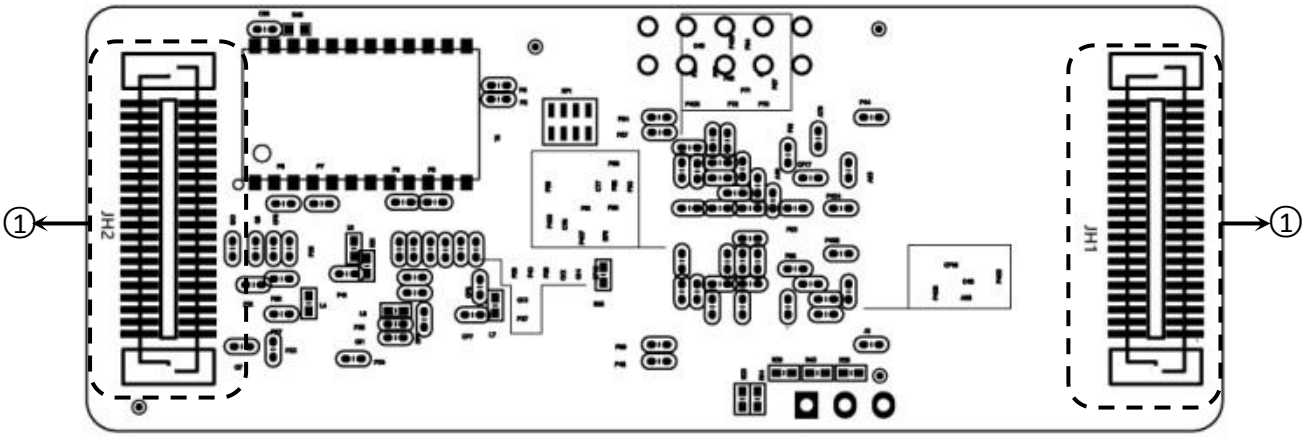
The receiving card supports configuration parameter read-back function, single point parameter setting and query read-back, and supports online upgrade, which is convenient for customer system upgrade and maintenance.

TECHNICAL PARAMETERS

SCREEN INDEX	
Parameters	Specification
Minimum size	32 x 32
Control size	128*360
Number of data groups	8 parallel / 32 serial
Row offset range	0-511 point offset range
Row offset height	Max 384, setup the row height or data unit
Cascade quantity	Single network line level connection card receiving quantity ≤ 1024
Gray level	≤65536 degree
Refresh rate	Support 5000Hz, will be changed with the control width.
Application	All kinds of full color LED screens
Chips	All kinds of main stream full color LED chips
Interface	2 nos of high density connector interfaces, 8 nos of RGB data
Brightness	256 grade

Details	
Input power supply	4V～5.5V； Please make sure the quality of power supply
Power Dissipation	≤5W
Temperature	-40℃～80℃
Size	75mm*28mm

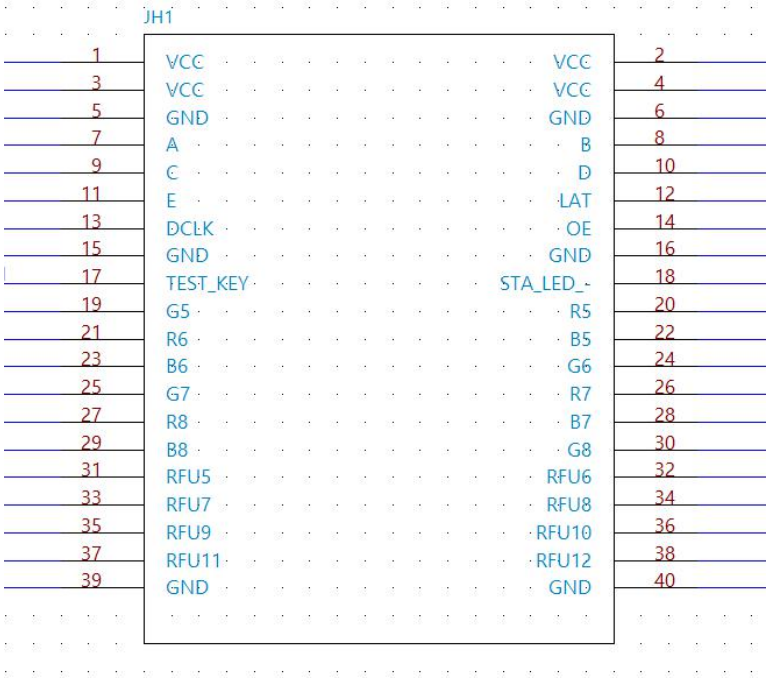
INTERFACE DIAGRAM



Interface		
1	Output interface	high density connector (JH1、JH2)

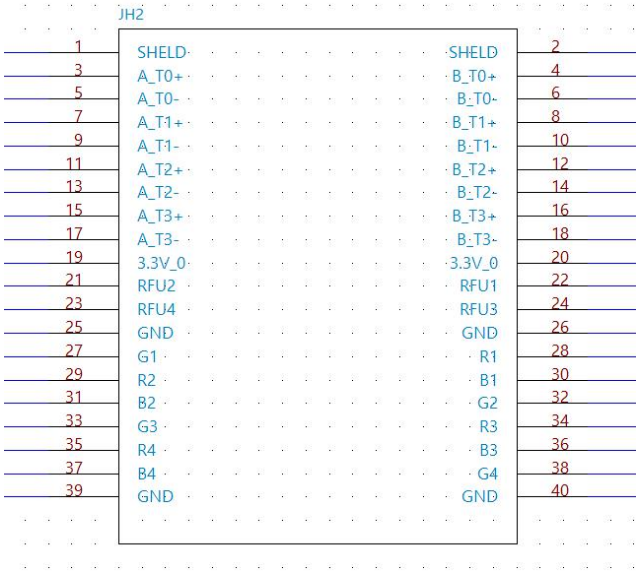
Interface definition

8 Group Parallel Data definition as following



JH1							
Note1		VCC	1	2	VCC		Note1
		VCC	3	4	VCC		
		GND	5	6	GND		
	Line decoding signal	A	7	8	B	Line decoding signal	
	Line decoding signal	C	9	10	D	Line decoding signal	
	Line decoding signal	E	11	12	LAT	Latch signal output	
	Shift clock output	DCLK	13	14	OE	Display enable	Note4
		GND	15	16	GND		
	Test button	TEST _KEY	17	18	STA_LED_-	running-state light	Note3
Note2	/	G5	19	20	R5	/	Note2
	/	R6	21	22	B5	/	
	/	B6	23	24	G6	/	
	/	G7	25	26	R7	/	

	/	R8	27	28	B7	/	
	/	B8	29	30	G8	/	
Note5	/	RFU5	31	32	RFU6	/	Note5
	/	RFU7	33	34	RFU8	/	
	/	RFU9	35	36	RFU10	/	
	/	RFU11	37	38	RFU12	/	
		GND	39	40	GND		



JH2							
	Shield Ground	SHELD	1	2	SHELD	Shield Ground	
Gigabit port	/	A_T0+	3	4	B_T0+	/	Gigabit port
	/	A_T0-	5	6	B_T0-	/	
	/	A _T1+	7	8	B_T1+	/	
	/	A _T1-	9	10	B_T1-	/	
	/	A_T2+	11	12	B_T2+	/	
	/	A_T2-	13	14	B_T2-	/	
	/	A_T3+	15	16	B_T3+	/	
	/	A_T3-	17	18	B_T3-	/	
		3.3V_0	19	20	3.3V_0		
Note5	/	RFU2	21	22	RFU1	/	Note5
	/	RFU4	23	24	RFU3	/	
		GND	25	26	GND		
Note2	/	G1	27	28	R1	/	Note2
	/	R2	29	30	B1	/	
	/	B2	31	32	G2	/	
	/	G3	33	34	R3	/	
	/	R4	35	36	B3	/	
	/	B4	37	38	G4	/	

		GND	39	40	GND		

Note1：Input voltage VCC:3.3V～6.0V.

Note2：RGB data group must be used in pairs.

Note3：running-state light　is valid for low level.

Note4：OE means enable pin for display.If use PWM chips，means GCLK signal.

Note5：RFU1～12 reserved extension function interface.

2.32-Group Parallel Data：

JH1							
Note6		VCC	1	2	VCC		Note6
		VCC	3	4	VCC		
		GND	5	6	GND		
	Line decoding signal	A	7	8	B	Line decoding signal	
	Line decoding signal	C	9	10	D	Line decoding signal	
	Afterglow control signal	Output_CTRL1	11	12	Output_LAT	Latch signal output	
	TXD signal	Output_TXD	13	14	Output_OE	Display enable	Note9
		GND	15	16	GND		
	Test button	Input_KEY0	17	18	Output_LED	running-state light	Note8
Note7	/	Data13	19	20	Data12	/	Note7
	/	Data15	21	22	Data14	/	
	/	Data17	23	24	Data16	/	
	/	Data19	25	26	Data18	/	
	/	Data21	27	28	Data20	/	
	/	Data23	29	30	Data22	/	
	/	Data25	31	32	Data24	/	
	/	Data27	33	34	Data26	/	
	/	Data29	35	36	Data28	/	
	/	Data31	37	38	Data30	/	
		GND	39	40	GND		

JH2							
	Shield Ground	SHELD	1	2	SHELD	Shield Ground	
Gigabit port	/	A_T0+	3	4	B_T0+	/	Gigabit port
	/	A_T0-	5	6	B_T0-	/	
	/	A_T1+	7	8	B_T1+	/	
	/	A_T1-	9	10	B_T1-	/	
	/	A_T2+	11	12	B_T2+	/	
	/	A_T2-	13	14	B_T2-	/	
	/	A_T3+	15	16	B_T3+	/	
	/	A_T3-	17	18	B_T3-	/	
		3	19	20	3		
Note10	/	RFU2	21	22	RFU1	/	Note10
	/	RFU4	23	24	RFU3	/	
		GND	25	26	GND		
Note7	/	Data1	27	28	Data0	/	Note7
	/	Data3	29	30	Data2	/	
	/	Data5	31	32	Data4	/	
	/	Data7	33	34	Data6	/	
	/	Data9	35	36	Data8	/	
	/	Data11	37	38	Data10	/	
		GND	39	40	GND		

Note6：Input voltage VCC:3.3V～6.0V.

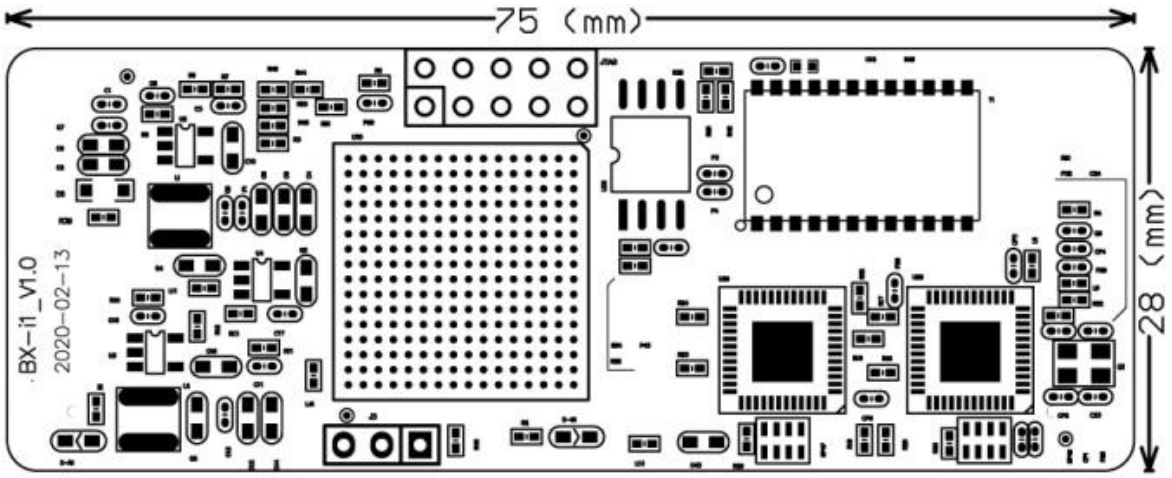
Note7：Data group must be used in pairs

Note8：running-state light is valid for low level.

Note9：OE means enable pin for display.If use PWM chips，means GCLK signal.

Note10：RFU1～4 reserved extension function interface.

Dimensions



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