

ArtNet-SPI Control System

Model: Artnet-SPI-4 Artnet-SPI-8





Product Introduction

- Ethernet Control System based on the ArtNet protocol.
- Convert the ArtNet network data package into SPI data.
- Adopting high-speed ARM processor, stable and reliable.
- With RJ45 network and DMX512 interface, support DMX management.
- With OLED screen and 4 keys, very easy for setting operation.
- Support firmware update function.
- Support recording function, support multiple device offline sync playback function.
- Support offline timing and loop playback.
- Supports serial/parallel connection of network cables.
- Supports static/dynamic IP settings.
- Compatible with the light software based on ArtNet protocol.
- Used in LED dot matrix and DMX512 stage lighting control.
- Offline synchronized playback does not need to specify the master and slave.
- Suitable for TV station recorded scene, stage performances, entertainment, building lighting and so on.

(€ FC RoHS ☆ □ ® ● ※



Technical Specs

Artnet-SPI-4 / Artnet-SPI-8

Input voltage :	5~24Vdc	Screen:	OLED
Input signal:	Ethernet (ArtNet)	Isolation ethernet port:	Total isolation
Output signal:	SPI	Isolation power input:	Total isolation
SD card capability:	8G	Working temperature:	-30℃~55℃
DMX connection:	RJ45	Dimension:	L170×W90×H25mm
Network connection:	RJ45	Package size:	L192×W132×H50mm
Control: Artnet-SPI-	4: 680 pixels, 4 universe	Weight (G.W):	610g
Artnet-SPI-	8: 1360 pixels, 8 universe		

Compatible IC: TM1809/TM1804/TM1812/UCS1903/UCS1909/UCS1912/UCS2903/ UCS2912/WS2811/WS2812/SK6812/TM1803/TLS3001/KL590/KL592D/WS2821/TM1829LS MBI6120/GW6205/GS8206(BGR)/SM16703/UCS2904/UCS8904B/SK6812(RGBW)

Package Contents





Product Size



Main Component Description





Wiring Diagram

1. Connection in series



* Offline synchronized playback no need to specify the master and slave.

2. Connection in parallel



* Offline synchronized playback no need to specify the master and slave.

* Parallel connection is recommended for large number of devices.

LTECH

Connect ArtNet Control System to Computer

This product is compatible with all the ArtNet software in the market, here take MADRIX as an example:

1. Install the Madrix 3 software in the computer, the icon on the desktop :



- 2. Use the equipped adapter to power ArtNet control system
- 3. Connect ArtNet control system to computer via the cable.
- 4. IP Setting: This control system is compatible with random network segment. According to the ArtNet protocol, 2.X.X.X or 10.X.X.X can be added in the computer (X means arbitrary value), methods as below:

Setvolving Authenti-	cation
Connect using:	
Peatek PCle	GBE Family Controller
	Configure
This ogniection uses	the following items:
Clert for No	crosoft Networks
M Backet	t Scheduler
Se	the Oracles for Manager Materials
cel genne and me	on analytic Pictoria Internation
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A Internet Prot A Internet Prot	tocol Version 6 (TCP/IPv6) tocol Version 4 (TCP/IPv4)
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4.1 Open the Network, click "Properties" button of the TCP/IPv4 protocol.

IP/IP Address			-		-	-		8
IP address:	2		10		0		0	
Subnet mask:	255		0		0		0	
		ſ	-	A	dd		ì	Cancel

4.4 Add the IP address 2.X.X.X or 10.X.X.X (X could be arbitrary value).

eneral	
You can get IP settings assigne this capability. Otherwise, your for the appropriate IP settings.	d automatically if your network supports need to ask your network administrator
🕘 gbtein an IP address auto	matcaly
@ Use the following IP addre	5%
P address:	192 .168 . 1 .110
Sybnet mask:	255 .255 .255 . 0
Default gateway:	
Olgtain DNS server address	s automatically
Use the following DNS service	ver addresses:
Breferred DNS server:	
Alternate DNS servers	
Vajdate settings upon est	t Adjanced

4.2 Click "Advanced".

to he he	
P addyesses	
IP address	Subnet mask
192, 168. L 113	255.255.255.0
Default gatewaysi Gateway	Metric
Agtometic metric Igneria ca matrici	di
Theorem and the	

4.3 Click "Add".

10 - 44	fi fan a mad
1- 900.620	SUCHECHIESK
2, 10, 0, 0	255.0.0.0
	dd [gdt Remoge
Default gateways:	
Gateway	Metric
	dd Edg Regove
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Ighteface metric:	

4.5 Interface of adding successful, click "OK" and exit.



5. Open Madrix 3 software, choose "preferences" >" device manager" from menu.



 In "device manager" dialog, choose "ArtNet" tab, tick "enable" and click search Artnet-SPI-4 / Artnet-SPI-8 will be searched.

		Statement Street Street				-
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Devicehore	dourts/194	University	P Address (MAC Address	-		
ketilet Remote			2.0.0.7 / BD102/FESB/FIEBO (Receive Only Fran 2.0.0.7)		-	=
						a
ANNA-SPI-8			21681347007/5927828.0E (Binddx1 (Send Only To 2.958.1.14)			
			Wottows - stockd 10		*	

Click the tab of "DMX devices", set port status to "ON" if connected successfully. Now, you
can use computer to control lamps via Artnet-SPI-4 / Artnet-SPI-8.

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					Optimized	
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	Artikel-SPE0 (2.190.1.14) Bindid:1 Port 2				Optimized	MADPICS inonge
	Artiket-SPI-8 (2.155.1.14) Bindid:1 Port:3					
	Artiset-5758 (2.155.1.14) Bridde 2 Port 0				Optimized	
	Arthel-SPL8 (2.193.1.14) Binikii/2 Port1					
					Optimized	
	Artikel-SPE0 (2:190.1.14) Bindid: 2 Port: 2				Optimized	rest i
						Universe :
						Frane Time (ma) : 34 🔀
						PPS: 33.3
						Send Dat Darras 9

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LCD Screen Interface Diagram



Press "MENU" key to enter main menu. Press "BACK" to playback/pause.

Main menu	
	Network SD card Free space/ lotal space
	品 🕢 12.32/14.83G
	Setting Tool
	Clock Timer
	Network ArtNet
	List Record

Press "UP" key or "DOWN" key" to switch item. Press MENU" key to enter submenu.

Clock

	Clock	
Year	Mon	Day
2018	03	05
Hour	Min	Sec
14	09	33

Press "MENU" key to switch item. Press "UP" key or "DOWN" key to adjust parameter.

Press "UP" key or "DOWN" key to select file, tick v in the box means select it.

File

name

Setting

Chip type Chip: TM1809 RGB order Order: GRB Brightness of load lamp Briaht: 254 DMX: 001 Address of the DMX -

Press "MENU" key to switch item.

Press "UP" key or "DOWN" key to adjust parameter.

Tool

Setting

Tool

Screensaver -Never Screen: Contrast: 60% Screen contrast -OFF Lock. Screen lock -

Press "MENU" key to switch item. Press "UP" key or "DOWN" key to adjust parameter.

> Timer 01.2019/06/11~ 02. Unknown~ 03. Unknown~ 04. Unknown~ 05. Unknown~

Timer

File

name

Press "MENU" key to switch item, Press "DOWN" key to enter submenu. Press "UP" key start or stop the timer, tick 🗸 in the box means start. (only effective for timer which has been set).

Press "MENU" key to switch item.

Data submenu

Dateweek Sta:2018/03/05 14:43

End:2018/03/05 14:43

01.201707151556

02.201707151656

03.201712201556



01.201707151556

02.201707151656

201712201556

03

 \Box







Network

Netwo<u>rk</u>

DHCP ON: dynamic IP DHCP OFF:static IP

	Hotwork
DHC	P: ON
IP:	192.168.001.066
MK:	255.255.255.000
GW:	192.168.001.001

Press "MENU" key to switch item. Press "UP" key or "DOWN" key to adjust parameter.

* Dynamic IP's parameters are automatically updated and cannot be changed manually.

List

	List	
File name —	01.201707151556 02.201707151556 03.201707151556 04.201707151556 05.201707151556	

Press "MENU" key to switch item. Press "UP" key or "DOWN" key to tick \checkmark in the box (means select this file).

Record

ArtNet



Press"UP" key or "DOWN" key to adjust parameters.



Work with the RDM Programmer

The ArtNet -SPI Control System can work with a DMX address programmer that follows the standard RDM protocol.

It is recommended to use LTECH RDM Programmer (Model: WiFi-RDM01), which allows remote browsing, parameter setting and DMX address setting.



Mobile App Interface for the RDM Programmer

Download the App with your mobile phone and connect the RDM Programmer successfully, then you are allowed to set parameters through the APP. Please refer to the WiFi-RDM01 manual for more details.

- a. At the homepage, click "Add" of the device you are going to operate to edit the address, as shown below in the interface.
- b. Click "ID" to get more details for devices.
- c. Click "No" to issue an recognizing command.
- d. Click "∠" to view/modify parameters, including modifying frequency, mode, curve, querying output power and modifying current.
- e. Click "③ " in the upper left corner to access the settings which allows you to test, edit DMX addresses, set WiFi for devices and upgrade firmware.





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	More	
📑 Test		>
DMX Address		>
🕱 Setting WiFi		>
🙁 About		>
Feedback		>
🕢 Upgrade		>

Setting

ae

ad 🗢	9:41	\$ 100% 💻	
	DMX addres	s: Unicast	
Choose the so	rted models firstly,	then modify Srl.N	O and click OK
<	# -	18	> 📀
#1	#2	#3	#4
#5	#6	#7	#8
#9	#10	#11	#12
#13	#14	#15	#16
#17	#18	#19	#20
#21	#22	#23	#24
#25	#26	#27	#28

DMX address setting

e pag

- 🖘		9:41 AM			\$ 1009	6	
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#1	52	#2	52	#3	52	#4	52
#5	OFF	#6	OFF	#7	OFF	#8	
#9	OFF	#10	OFF	#11	OFF	#12	• •••
#13	OFF	#14	OFF	#15	OFF	#16	190 0 - F
#17	OFF	#18	OFF	#19	OFF	#20	200
#21	OFF	#22	OFF	#23	OFF	# ₂₄	250
#25	OFF	#26	OFF	#27	OFF	#28	200 • •
#29	OFF	#30	OFF	#31	OFF	#32	•
#33		# ₃₄		# ₃₅		#36	•





Firmware Update

Please connect ArtNet control system to computer, and copy update file to computer.

Method 1. Firmware update with software.

Open software 👯 in your computer, enter follow interface and update firmware.

	😹 AntNet 🛛 🕹	
) Frame size: 25	Infrastine transition Infrastine transition	⑤ Click "Browse", and select update file
	2 3 3 Enter IP address of Remote Local main display interface port: 6454	- ® Click "Firmware update"

Method 2. Firmware update with explorer.

Open explorer, enter "http://192.168.1.14" in the address bar, "login" interface appeared, enter user name"LTECH", password "123456", then click "login" button.

C 🛞 🧭 http://192.168.1.14/	
Login	
Eater User ID and Password:	
LIECH	Password 123456

Enter the following interface, click "browse" button to select the update file, then click "upload" button to update, if "update done!" appeared means update successful.

	cgi
Please specify a binary file to upload:	
	浏览
Upload	

* For firmware update, please contact us for update software and documents.





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ArtNet-SPI 控制系统

型号: Artnet-SPI-4 Artnet-SPI-8





产品介绍

- 基于Artnet协议的以太网络控制系统;
- 将网络上Artnet协议中的数据包转换为SPI数据;
- 采用高速ARM处理器,工作稳定可靠;
- 提供RJ45网络接口及RJ45的DMX512接口,支持DMX管理;
- 采用OLED液晶屏,配备4个按键,设置操作方便直观;
- 支持固件更新功能;
- 支持录制功能,支持多台脱机同步播放功能;
- 支持脱机定时播放及循环播放;
- 支持网线的串/并连2种连接方式;
- 支持静态/动态IP设置;
- 可以与兼容Artnet协议的灯光控制软件配合使用;
- 用于LED点阵以及需要大量DMX512数据的舞台灯光控制网络;
- 脱机同步播放无需指定主从机;
- 适用于电视台录播现场、舞台演出、娱乐场所、楼宇亮化等。

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性能参数

Artnet-SPI-4 / Artnet-SPI-8

电源输入:	5-24Vdc	屏幕:	OLED
输入信号:	以太网(ArtNet)	网口隔离:	总隔离
输出信号:	SPI	电源隔离:	总隔离
SD卡容量:	8G	工作温度:	-30°C~55°C
DMX连接:	RJ45	产品尺寸:	L170×W90×H25mm
网络连接:	RJ45	包装尺寸:	L192×W132×H50mm
控制:	Artnet-SPI-4: 680像素, 4 universe Artnet-SPI-8: 1360像素, 8 universe	重量(毛重):	610克

兼容IC: TM1809/TM1804/TM1812/UCS1903/UCS1909/UCS1912/UCS2903/UCS2912 WS2811/WS2812/SK6812/TM1803/TLS3001/KL590/KL592D/WS2821/TM1829LS MBI6120/GW6205/GS8206(BGR)/SM16703/UCS2904/UCS8904B/SK6812(RGBW)

包装内容



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尺寸图







产品说明







[★] 脱机同步播放无需指定主从机。

2、并联示意图

联机



* 设备数量较多时,推荐使用并联连接方式。

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0 23949 81

连编封使用

安装の

计读得使用下列语言 的

Realtok PCIs GRE Family Controller

₩ → 総路原格林文明的印度用

。 诸地论是默认的广阔网络协议,它擅共在不同 这种时刻码上的通讯。

网络 44634632

ArtNet控制系统连接电脑

本产品支持市面上所有的ArtNet软件, 下面以MADRIX为例讲行说明:

1. 安装操作软件: 电脑上安装MADRIX 3软件, 装好后图标显示为:

2、ArtNet控制系统连接电源:

3、用网线将ArtNet控制系统和电脑连接好:

配置 (0)...

4. IP设置:本转换器支持任意网段的设置。根据Artnet协议建议,请在电脑添加 2 X X X 或 10 X X X 网段 (X 表示任意数值), 方法如下:

ternet 协议后本 4 (TCP/IPv4) 屬件

常祝

(1) 打开网络, 点击TCP/IPv4 协议的"属性"按钮

(5) 添加成功后的界面,确定退出

現現 TCP/IP 設置 8 X 17 役里 105 ¥116 17 地址(3) 17 地社 子网横码 192.168.1.110 2.0.0.6 295.255.295.0 295.0.0.0 滚加(A).... 编辑(E).... 删除(V) 野辺同美(の) 网关 1158 **液加の....** (納後の...) (納後の) 1 Attack 100 URE REA

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(2)点击"高级"按钮

abite TCP/IP 设置 17 GE 185 19185 17 羌姓(8) 17 地址 7000 192 168 1 110 21 204 P3 10tg (A)....) (1046 (C)....) 1058 (V) WILLSH M 网关 好你的 ■自地好点 00 Ni Ră

2 8

(3) 点击"添加"按钮

MADRIX 3





8 - 8









5、打开MADRIX 3软件, 在菜单上选择"首选项"/"设备管理器";

6、在"设备管理器"对话框中,选择"ArtNet"选项卡,勾选"启用",并点击搜索 2; 电脑 将搜索到ArtNet-SPI-4/ArtNet-SPI-8

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utilet Reviole			2.0.0.7 (80.83 #618) / 8.80 (①从,20.0.7 論後)		wr.
ANNE SPL 8			2.168.1.14/0C7F 9870.280E/Ended2 (2222220) 21681.14)		
			2.160.1.14/0C/7F 59/70.28/0E / Bedao/1 ((726)) (2.160.1.14)		
					÷
				-	

7、切换至"DMX设备"选项卡,连接成功,将端口状态设置为"开"。现在可以实现电脑通过 ArtNet-SPI-4/ArtNet-SPI-8控制灯具了。

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★ MADRIX[®]为德国 inoage GmbH公司的注册商标。



显示屏界面 按键说明 I ENU 110 DOWN PACE 主菜单键 返回键 参数键/条目切换键 М 顺序播放主机 主界面 剩余空间/总空间 主机/从机 顺序播放从机 网络 SD卡 播放/暂停 Mt 定时播放主机 定时播放从机 옸 12.32/14.83G M P 芯片类型--像素--RGB顺序 (TM1809--340--RGB) IP地址 -192.168.001.066 星期 日/月/年 时间-M 05/03/2018 13:25:18

按 "MENU"键进入主菜单,按"BACK"键播放/暂停

主菜单



按"UP"键或"DOWN"键切换条目,按"MENU"键进入下级菜单



				Clock	
年 时	月分	日— 秒—	Year 2018 Hour 14	Mon 03 Min 09	Day 05 Sec 33

按"MENU"键切换条目,按"UP"键或"DOWN"键调整参数

LTECH

设置

		Setting
芯片类型 ―	Chip:	TM1809
RGB顺序 —	Order:	GRB
负载灯亮度 —	Bright:	254
DMX地址—	DMX:	001

按"MENU"键切换条目,按"UP"键或"DOWN"键调整参数

⊤員

	Tool		
屏保开关 —	Screen:	Never	
屏幕亮度 —	Contrast:	60%	
锁屏开关 —	Lock:	OFF	

按"MENU"键切换条目,按"UP"键或"DOWN"键调整参数

Timer	
01.2019/06/11~	
02. Unknown~	
03. Unknown~	
04. Unknown~	
05. Unknown~	

按"MENU"键切换条目,按"DOWN"键讲入子菜单

按"UP"键启动或停止该定时器, 在 🗆 内打勾表示启动 (仅对设置过的定时有效)



按"UP"或"DOWN"键选择需播放的文件,在 🗆 内打勾表示选中

网络

	Network	
DHCP — ON: 动态获取IP OFF: 静态IP	DHCP: ON IP: 192.168.001.066 MK: 255.255.255.000 GW: 192.168.001.001	

按"MENU"键切换条目,按"UP"键或"DOWN"键调整参数 * 动态获取IP时参数自动更新,不可手动更改

列表



按"MENU"键切换条目, 按"UP"键或"DOWN"键在 🗆 内打勾 (表示选择此文件)



ArtNet



按"UP"键或"DOWN"键调整参数



搭配RDM编辑器使用

ArtNet-SPI控制系统可以与遵从标准RDM协议的地址编辑器配合使用。

建议使用LTECH的RDM编辑器(型号WiFi-RDM01),可实现手机远程浏览、设置参数、设置 DMX地址等功能。



RDM编辑器APP界面介绍

手机下载APP,与RDM编辑器连接成功后,即可通过APP设置参数,具体请参看WiFi-RDM01 使用说明书。

a. 在首页界面, 点击对应设备的 "地址" 方框即可编辑设备地址;

b. 点击 "标识符" 出现设备详细信息;

c. 点击序号发出识别命令;

d. 点击编程图标可以查看/修改参数。包括修改频率、模式、曲线、查询输出功率、修改 电流等功能;

e. 点击右上角设置 ③ 按钮, 进入设置界面。可以进行测试、编写DMX地址、设置设备工作 的WiFi、固件升级等。





1 11 🗇	9:41 AM	\$ 100%
	更多	
⊒# 测试		>
E DMX地址表		>
😪 设置WiFi		>
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设置

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#1	52	#2	52	#3	52	#4	5
#5	OFF	#6	OFF	#7	OFF	#8	•
# ₉	OFF	#10	OFF	#11	OFF	#12	tes OFF
#13	OFF	#14	OFF	#15	OFF	#16	150 OF F
#17	OFF	#18	OFF	#19	OFF	#20	0175
#21	OFF	#22	OFF	#23	OFF	# ₂₄	280 -
#25	OFF	#26	OFF	#27	OFF	#28	200 - 0 FF
#29	OFF	#30	OFF	#31	OFF	#32	•
#33		#34		#35		#36	



		♣ 100%			
	DMX地均	L表-单播	3 8		
选择你要排序的型号,然后修改序号,点击" ~ "确定					
<	#	18	› 🕑		
#1	#2	#3	#4		
#5	#6	#7	#8		
			100		
#9	#10	#11	#12		
#13	#14	#15	#16		
#17	#18	#19	#20		
	"10				
#21	#22	#23	#24		
#25	#26	#27	#28		
			iii		

DMX地址设置



固件升级

请将本产品与电脑用网线连接好,并将升级文件拷贝至电脑。

方法1、使用软件升级固件

在电脑上打开软件 🤽 , 进入以下界面, 进行固件升级。

	ArtNet-20190501	
		Browse
Network Local IP: 192 168	8 1 103 Local Port:	Browse Firmware Version

方法2、使用浏览器升级固件

打开浏览器,在地址栏输入"http://192.168.1.14",出现"login"界面,输入用户名 "LTECH",密码"123456",然后点击"login"按钮。

🗲 🛞 💋 http://192.168.1.14/
Login
Rater User ID and Password: User ID TECH Password 123456
Login

进入以下界面,点击"浏览"按钮选择升级文件,再点击"upload"按钮进行升级,如界面显示"uploate done!"表示升级成功。

승 🛞 💋 http://192.168.1.14/checklogin.cgi			
Please specify a binary file to upload:			
	浏览		
Upload			

* 如需固件升级,请联系我们索取升级软件及升级文件。

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