CLUB SPI

Introduction

The CLUB SPI is a compact USB-to-SPI & DMX standalone interface for LED and DMX lighting control. It operates in three independent modes: Live (PC-controlled), Stand-Alone (no PC required) and LED Driver (autonomous DMX-to-SPI converter).

It is compatible with plenty of SPI ICs (WS2812, APA102, SK6812 and more), it delivers up to 3,072 SPI channels (1,020 RGB pixels) and 512 DMX-RDM channels simultaneously.

Bundled free software: PRO DMX 2, STUDIO DMX and PIXXEM -- Windows, macOS, Linux & Raspberry Pi.

CLUB SPI

KEY FEATURES

3-in-1 device	Live (PC), Stand-Alone (no PC), LED Driver (DMX-to-SPI converter) -- all in one unit
Simultaneous I/O	1x 512 ch. DMX-RDM output + 3,072 SPI channels on a single terminal block
SPI ICs	WS2812/2811/2813/2815, SK6812, APA102, LPD8806, UCS, TM series and more
Stand-Alone	32 MB memory | 512 scenes | 8,000 steps | IR remote, 3 dry-contact triggers
Free software	PRO DMX 2 | STUDIO DMX | PIXXEM -- Windows, MacOS, Linux, Raspberry Pi
Upgradable on site	Art-Net IN/OUT, PIXXEM up to 512 universes, FULL feature unlock via DeviceTool
Compatible Fixtures	• Addressable pixel LEDs (WS2811, WS2812, SK6812, UCS1903, etc.) • Pixel LED strips, bars and matrices • All DMX512 fixtures: LED PARs, bars, strobes, simple moving heads, dimmers

SAFETY INSTRUCTIONS

Intended use	This device is intended solely for controlling lighting fixtures and effects via compatible software or hardware triggers. Any other use may result in personal injury or property damage. Chromateq accepts no liability for damage resulting from improper use.
Do not use in	Direct sunlight | Extreme temperature or humidity conditions | Dusty or wet environments | Areas near strong magnetic fields | Any situation where the unit is or may become damaged
General handling	Never use force when installing connectors. Do not immerse in water. Clean only with a dry cloth -- do not use solvents, benzene, thinners or flammable cleaning agents.
Electrical safety	Verify supply voltage before connection (5 V USB-C or 9-24 V DC). Ensure proper strain relief on all wiring. Do not exceed maximum current ratings listed in specifications.
Children	Keep packaging materials out of reach of children -- choking hazard. Small components may detach; ensure children cannot access them.
Disclaimer	Read all documentation before use. Retain this guide for future reference. If transferring the product to a third party, include this document.

Technical information

PC: Personal Computer (Live)
SA: Stand Alone (no computer use)

Interface, Output, Input (PC + SA)

DMX output	1 x 512 channels
RDM	Yes, Via DMX port + software (PC)
DMX In	1 x 512 channels (PC)
DMX Pixels	Up to 170 RGB or 128 RGBW
SPI output	3072 channels @ 15 fps (PC) to 25 fps (SA)
SPI Pixels	Up to 1,020 px RGB or 768 px RGBW
USB-C	USB-C power compliant
Memory	256 Mb
LED Driver	Yes, 512 channels input, 170 RGB pixels
Upgrade	Yes, FULL or UxU for Art-Net / sACN
Triggers	x3 Dry smart contact (GND), Infrared remote

Software, APP & OS

PRO DMX 2	Free, live lighting control & stand alone
PIXXEM	Free, Pixel-mapping, DVI capture, video
STUDIO DMX	Free, real time 3D viewer
Windows	Windows 10 / 11 (32 & 64-bit)
macOS	MacOS 10.14 and latest
Linux	Ubuntu, Debian and derivatives
Raspberry	Raspberry Pi OS
USB drivers	For Intel, ADM, Qualcomm cpu
Wi Light APP	Free, iOS & Android -- LAN control
UDP / SDK	Open UDP protocol for 3rd part software
DeviceTool	Setting, firmware, upgrade, licence

Supported SPI IC's

Voltage	5 V, 12 V, 5-12 V, 5-24 V, 5-32 V (per IC)
RGBW	SK6805/6812, TM1814, WS2814, SM16703/16704, UCS2904B
RGBWAL	FW1906
RGB	WS2811, 2812, 2812B, 2813, 2815, 2815B, 2818, APA102, SK9822, LPD6803, 8803, 8806, 1101 UCS1903, 1909, 1912, 2903, 2909, 2912, 6909, 6912, TM1804, 1809, 1903, 1914, 1934, CS8812, GS8206, 8208, D705, HD107S, SM16703P, WS2801, 2803

Specifications

Power input	5 V USB-C (0.2 A) or 9-24 V DC
Power consumption	0.7 W
DMX isolation	3 kV / 0.12 A (fuses & diodes)
DC isolation	1.5 kV / 0.3 A
Dimensions	103 x 50 x 37.5 mm (4 x 2 x 1.5 in)
Net / Gross weight	0.10 kg / 0.16 kg (0.22 / 0.35 lbs)
Housing	Solid aluminium | IP40
Operating temperature	-45 C to +85 C
Mounting	Desktop or screw-fix (no DIN rail)

Stand Alone

Step capacity	8,000 steps for 7 U (1 DMX + 6 SPI)
Scene played	1 (DMX + SPI combined)
Scene number	512 max
SPI driver	DMX to SPI, 512 channels input to 170 RGB pixels
SPI driver options	Pixel grouping, pixel repeating, start DMX address RDM

Upgrade & Live (PC)

Upgrade	FULL, UxU to unlock Art-Net / sACN
Multi-device	Up to 10 devices via USB
Art-Net / sACN Out	Up to 64 U. (Pro DMX 2), 512 U. (Pixxem)
Art-Net / sACN In	Up to 16 U. (PC)
DVI resolution	Up to 1920 x 1080 via PIXXEM
Timeline	Up to 24H, need FULL Upgrade

Triggering & 3rd Part Connectivity

Smart dry contacts	3 x (A / B / C on Ground) (5 ms)
Contact options	On, On/Off, Auto-release, Restart
DMX In	512 channels (PC) -- triggers / merge
Infrared	Scenes 1-15, Zones, Dimmer / Speed / Colour / Blackout / Pause. Via IR remote (included)
DMX In	512 channels -- triggers / merge

Warranty & Certifications

International warranty	3 years
Certifications	CE, Fcc, RoHS, UKCA
HS customs code	8537.10.91
HTS/TARIC/UKGT/CN	8537.10.91

Protocols & Communication

DMX 512 / RDM	USITT E1.11-2008. All DMX512 / RDM device
RS232	Via RS232 port (PC + SA)
UDP (SA)	Triggers & commands via Ethernet devices
UDP (PC)	Via Prod DMX 2 or Pixxem software
SMPTE	Need FULL upgrade, via software (PC)
MIDI / MTC	Devices (PC), Time Clock (need FULL upgrade)
Art-Net / sACN	In/Out, up to 64 U. (Pro DMX 2) or 512 U. (Pixxem)
RDM Art-Net / sACN	Via software and Upgrades
Calendar / Clock / Time	Via software (FULL Upgrade) or via device RTC
SPI	Data + Clock | 3,072 channels
DALI	Via CLUB DALI
Wi-Light APP	Via software (PC)
Audio BEAT & BPM	Via software (PC)
Keyboard	Via software (PC)
Hyperlinks	Via software (PC)

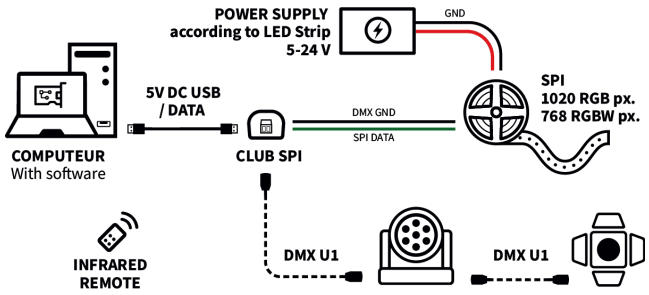
Tools and Accessories

DIN mounting	Not supported, via DIN rail mounting unit
Power supply	Not included
Infrared remote	x1 Included
DMX cable	Not included

Operating Modes

* LIVE MODE

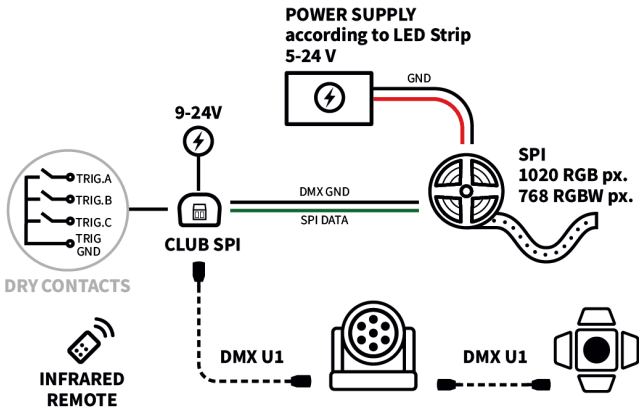
1. Download and install the latest software and USB drivers
2. Connect the CLUB SPI to your computer via the included USB-C cable
3. Start the software, the interface is detected automatically (green LED flash)
4. Configure the software according to your DMX fixtures or SPI pixels
5. Program scenes and sequences using the lighting control software
6. Play your show and scenes



Live mode wiring

* STAND-ALONE MODE

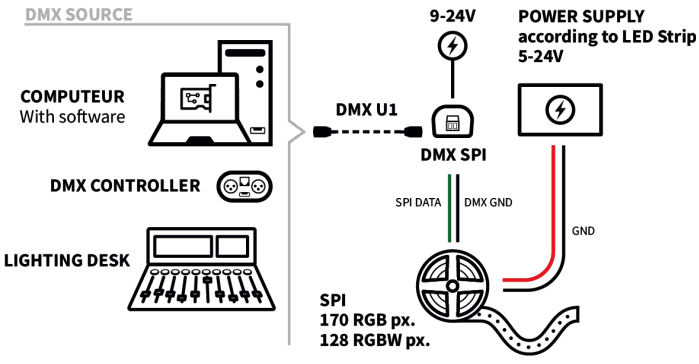
1. Program scenes in Live mode with the software
2. Save scenes to its internal memory
3. Close the software to test
4. Power the unit via USB-C (5V) or terminal block (9-24V DC)
5. The default start scene plays automatically (green LED flash slow)
6. Use the IR remote or dry contacts to select a scene to play



Stand-Alone mode wiring

* LED DRIVER MODE (DMX to SPI)

1. Open the DeviceTool (included in the software directory)
2. Connect the CLUB SPI and open it from the DeviceTool
3. In the MODE tab, select DMX-SPI mode and apply
4. Close, red LED flash fast: DMW to SPI converter mode is active
   Note: no PC needed during operation
5. Power the unit via USB-C (5V) or terminal block (9-24V DC)

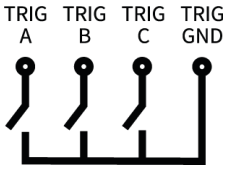


LED Driver mode wiring

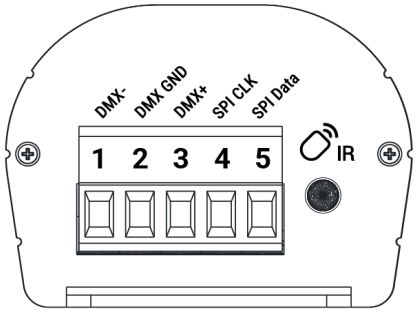
Triggers

CONTACT	
Trigger A (T1)	01
Trigger B (T2)	02
Trigger C (T3)	04
A + B	03
A + C	05
B + C	06
A + B + C	07

TRIGGER ACTIONS	
On	Start scene if none is playing
On / Off	Start or stop scene on each contact
Auto-release	Scene plays while contact active; stop on release
Restart	Restart scene on each contact action
If something plays	Start only when a scene is playing
If nothing plays	Start only when nothing is playing
On	Start scene if none is playing

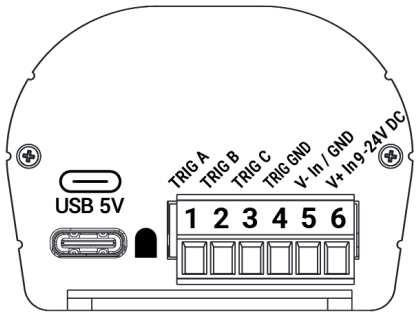


FRONT PANEL (SPI & DMX)



Terminal Block -- 5 pins	1. DMX- 2. GND 3. DMX+ 4. SPI Clock 5. SPI Data
IR receiver LED	Front-facing, 1 x IR LED (remote included)

REAR PANEL (USB & TRIGGERS)



USB-C	Data + 5 V DC input (0.3 A)
Status LED	Green / Red, Powered | Bootloader | Live USB | Stand-Alone | LED Driver | Error
Terminal Block -- 6 pins	1. Trig A 2. Trig B 3. Trig C 4. GND 5. V- 6. V+ (9-24 V DC)

STATUS LED STATES (G = Green | R = Red)	
Green OFF + Red OFF	Interface not connected
Green ON + Red OFF	Powered, no scene is stored
Green ON -- 3x flash	Bootloader preparation
Green / Red alternating	Bootloader mode active
Green fast flash + Red OFF	Live mode, active USB communication
Green slow flash + Red OFF	Stand-Alone mode -- scenes stored
Green + Red fast flash	Blacklist active
Red fast flash	LED Driver mode, DMX-to-SPI conversion active

TECHNICAL SUPPORT & RESOURCES

Download Software: chromateq.com/dmx-software-downloads/

Technical Support and commercial: chromateq.com/contact/

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