STANDALONE INTERFACES
USB-DMX 512 & 1024 CHANNELS

V.1.0.5
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**Hardware Technical Specifications**

- **Input**: USB 2.0
- **Input connector**: Mini USB - Mini USB cable included
- **Output connector**: XLR 3 (XLR 5 is optional) 1:Ground, 2:Data+, 3:Data
- **Number of DMX Input/Output**: 512 or 1024 (PC + Stand Alone)
- **PC DMX IN triggers**: Yes
- **Standalone DMX IN triggers**: Only with 1024 interfaces
- **External triggers**: x4 contacts (5V.) multiplexed to 15 contacts max (20m max cable length)
- **Master/Slave connection**: Yes, 3 wires for 16 connected interfaces max (20m max cable length)
- **Infra-red connection**: Yes via an external IR module (PCB) and 3 connection wires (max 15m away)
- **DMX Speed**: 1 to 45 Hz, MaB, Bk
- **Stand Alone mode**: Yes, 512 or 1024 channels per interface
- **Internal Clock (RTC)**: Yes
- **Internal calendar**: Yes
- **Backups of the internal clock**: Yes, 3 weeks without power
- **Internal memory**: Yes (4 MB)
- **Memory Capacity**: 4000 steps with 512 channels, 100 000 steps with 16 channels
- **Input power voltage**: 5 V. via USB(USB power supply included)
- **Input current**: 80 to 200 mA
- **Power**: 2W
- **Display of signal states**: DMX LED + USB LED
- **CPU technology**: 32 bit
- **Internal memory**: Yes
- **Data display**: 7 segments LED display
- **External triggers**: x4 dry contacts for up to 15 multiplexed contacts
- **Contact Input Voltage**: 5 V
- **Dimensions**: H: 40 mm (1.57 in) / W: 110 mm(4.33 in) / D: 120 mm (4.72 in)
- **Weight**: 0.180 Kgs
- **Color**: Black / Red
- **Operating Temperature**: -25 to +70 C°
- **Certifications**: CE, RoHS
- **IP rating**: IP20
- **Place of use**: Indoor
- **Storage**: Keep in a dry place
- **Warranty**: 24 months
- **DMX Compatibility**: 8 and 16 bit DMX fixtures
- **System Compatibility**: Windows XP, Vista, 7, 8, 8.1, 10, MAC OS X (10.6 and +), Linux
**TOP FACE OF THE 512 / 1024 CHANNELS INTERFACES**

**Scene triggering buttons:**
- 3: Scene 1 On/Off
- 4: Scene 2 On/Off
- 5: Scene 3 On/Off
- 6: Scene 4 On/Off
- 7: Scene 5 On/Off
- 8: Scene 6 On/Off
- 9: Scene 7 On/Off
- 10: Scene 8 On/Off
- 11: Scene 9 On/Off
- 12: Scene 10 On/Off

**Command buttons:**
- 2: Mode selection (trigger, speed, dimmer)
- 13: - decrease values
- 14: + increase values

**Display and LED:**
- 1: White LED mode
- 15: 7-segments LED display

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**LED 7-SEGMENTS DISPLAY OPERATION:**

Display the number of the playing scene and the mode (speed/dimmer) value.

**00:** Stand Alone mode running. No scene is playing. All DMX channels are set to 0.

**PC:** The interface is connected to the computer and software controlled.

In trigger mode, the 7 segment display gives the current scene number. The 00 value indicates that no scene is playing and the DMX interface send nulls (0x00) on all output DMX channels. In speed mode, the display indicates the speed of the current scene, values are between -9 and 9. In dimmer mode, the display indicates the general intensity, values are between -9 and 9.

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**LED 7-SEGMENTS SLEEP OPTION:**

It’s possible to activate the sleep option in the software. This will turn off the display after 4 seconds of inactivity on the interface’s buttons.

![Option available in the standalone window of the software](Turn off LED display after 4s)

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Datasheet - Standalone Interfaces USB-DMX 512 and 1024 channels
**WHITE LED MODE**

All Off: Scenes buttons are operating on trigger mode
1st LED ON: Scene Speed mode activated. Press + or – to adjust the speed of the current playing scenes
2nd LED ON: General Dimmer mode activated. Press + or – to adjust the dimmer

**MODE SELECTION BUTTON**

Press the Buttons to select the Speed, Dimmer or the default Trigger mode.

**NEXT/PREVIOUS, +/-SCENE PUSHPBUTTONS**

**Trigger Mode:** Select the Next or Previous Scene number. Go to the scene number you wish to start and Hold the button for 2 seconds to confirm and play the new scene from 01 to 99.

**Speed Mode:** Increase or decrease the Speed of the current scene. Values from -9 to +9.
**Dimmer Mode:** Increase or decrease the general intensity (dimmer + RGB). Values from -9 to +9. Default is 00.

**BLUE LED TRIGGER PUSHP BUTTONS**

Push a button to trigger scenes loaded in memory. Push again to stop scenes.
**Datasheet - Standalone Interfaces USB-DMX 512 and 1024 channels**

**FRONT FACE OF THE 512 / 1024 CHANNELS INTERFACES**

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**Red DMX: Signal LED**

- **OFF**: No DMX signal to the DMX line
- **ON**: DMX is ON and DMX signal is sent or received
- **Flashing**: DMX Signal Speed is slow

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**XLR DMX Signal Connector A**

- 3 Pins. Can be configured with Output mode or Input mode.
- 1: Ground
- 2: Data -
- 3: Data +

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**XLR DMX Signal Connector B – with 1024 interface only**

- 3 Pins. Can be configured with Output mode or Input mode.
- 1: Ground
- 2: Data -
- 3: Data +

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**DMX Terminal Block**

- From Left to Right:
  - 1: DMX A Data -
  - 2: DMX A Data +
  - 3: Ground
  - 4: DMX B Data -
  - 5: DMX B Data +
REAR FACE OF THE 512 / 1024 CHANNELS INTERFACES

Mini USB connector and power connector
5 DC Volts only; 0,15-1 A.

Green USB Signal LED
OFF: Interface not Powered (check the USB cable or the power supply).
ON: Interface Powered
Flashing Slow: USB communication ready. Drivers are installed correctly. The software has detected and it is communicating with the interface.

RJ45 connector for external communication and triggers
Pin assignment for interfaces:

**RJ45 1: Master/Slave + IR signal receiver (optional). Pin numbers run front right to left.**
1: Master/Slave - Clock
2: Master/Slave - Data
3: Ground
4: IR Signal from the external IR LED receiver
5, 6: None
7: 5 Volts
8: Ground

**RJ45 2: Master/Slave + External Contact Closures. Pin numbers run front right to left.**
1: Master/Slave - Clock
2: Master/Slave - Data
3: Ground
4: 5 Volts
5, 6, 7, 8: Trigger contacts 1, 2, 4, 8 (15 triggers if multiplexed)
**STAND ALONE INTERFACE ALL PIN ASSIGNMENTS**

<table>
<thead>
<tr>
<th>XLR Pin assignment</th>
<th>Terminal block Pin assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Ground DMX</td>
<td>1: Data +; DMX 1</td>
</tr>
<tr>
<td>2: Data -</td>
<td>2: Data –; DMX 1</td>
</tr>
<tr>
<td>3: Data +</td>
<td>3: Ground; all DMX</td>
</tr>
</tbody>
</table>

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<th>XLR Pin assignment</th>
<th>Terminal block Pin assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Ground DMX</td>
<td>4: Data +; DMX 2</td>
</tr>
<tr>
<td>2: Data -</td>
<td>5: Data –; DMX 2</td>
</tr>
</tbody>
</table>

**RJ45 (1-J7) Pin Assignment (device after 10/2011):**

Master/Slave + IR signal receiver (optional).

1: Master/Slave Clock
2: Master/Slave Data
3: Ground
4: IR Signal from the external IR LED receiver
5, 6: Free
7: 5 Volts
8: Ground

**RJ45 (2-J6) Pin assignment (device after 10/2011):**

Master/Slave + External Contact Closures.

1: Master/Slave Clock
2: Master/Slave Data
3: Ground
4: 5 Volts
5, 6, 7, 8: Trigger contacts (15 possible triggers actions)

External Contact Closures can be done only when Pin 1, 2, 3, 4 are connected to Pin 5 (5 V. DC).

**Pin Table:**

- Trigger 01 = Pin 5
- Trigger 02 = Pin 6
- Trigger 03 = Pin 5 + 6
- Trigger 04 = Pin 7
- Trigger 05 = Pin 5 + 7
- Trigger 06 = Pin 6 + 7
- Trigger 07 = Pin 5 + 6 + 7
- Trigger 08 = Pin 8
- Trigger 09 = Pin 5 + 8
- Trigger 10 = Pin 6 + 8
- Trigger 11 = Pin 5 + 6 + 8
- Trigger 12 = Pin 7 + 8
- Trigger 13 = Pin 5 + 7 + 8
- Trigger 14 = Pin 6 + 7 + 8
- Trigger 15 = Pin 5 + 6 + 7 + 8
The 4 externals contacts are located on the Ethernet socket number 2. You can use the 4 contacts to basically trigger 4 scenes. To have more triggers you must use a multiplexed system to get a maximum of 15 contacts as following:
Button 1 to 10 must be assigned to a scene via the software. Each button can trigger a different scene. With the remote control, a scene cannot be stop directly with the assigned button. To stop it you must press the Stop/Black Out button or trigger another scene.

**Pause button** to freeze the current scene to its actual state.

**Stop/Black Out** button to stop the current scene and play the empty scene number 00. All DMX channels are set down to 00 levels.

**+/- for scene trigger.** Select the next or previous scene automatically. You don’t need to hold the button to validate and play a scene. The next or previous scene will play directly after selected.

**+/- for Scene speed.** Increase or decrease the speed of the current scene. A different speed can be chosen separately for each scene.

**+/- for General dimmer.** Increase or decrease the RGB, CMY and dimmer channels of the fixtures. The CMY, RGB, Dimmer channels are defined in the Profile of the fixture.

To use the IR remote control, an external PCB with an IR receiver LED must be connected before to the RJ45 #1 of the Stand Alone interface. The standard RJ45 cable distance is about 20 meters maximum.

**IR PCB Pin assignment:**
- With RJ45 use pins #3 = Ground; #4 = IR Data; #7 = 5V DC.
- With T. Block use pins: O = IR Data; V = 5V DC; G = Ground.
In the software go to Stand Alone Mode and use the Triggers options to assign a remote button to a scene. Standalone mode offers up to 10 triggers with the Infrared remote.

By selecting a scene in the list, it's possible to choose the remote button number (from 01 to 10) to trigger the scene. The other IR remote functions will work as well as the SLIM DMX interface. (Speed, dimmer, scene +, scene -, off).
DMX IN TRIGGER CONNECTION

DMX-B Must be turned into Input in the software

Standard DMX Controller board

The DMX Output is connected to the interface input

DMX Output, playing scenes triggered with the DMX Board via the DMX IN signal.
DMX Merging is available for the 1024 SLIM interfaces only, because it takes two DMX lines to make a merge.

One DMX line must be turned into an input to capture the DMX signal provided by an external DMX board or by another DMX interface.

The interface will merge the input signal with its own output signal by comparing DMX levels with a HTP filter. Merging is a solution to keep manual control on channels, using a DMX Board for example. It’s also a way to create a multi-zones system by merging several interfaces on one final DMX line.

**DMX MERGING IN STANDALONE**

DMX Output A is a merge between what the interface is playing and what is coming in the input line B.

In the software’s standalone window, select: “DMX 1 OUT / DMX 2 IN” and validate the merge option.

The DMX Output is connected to the interface input – LINE B.

DMX-B Must be turned into Input in the software.

Standard DMX Controller board.
CONFIGURATION OF THE MASTER/SLAVE INTERFACES

When multiple interfaces are connected with USB, the standalone mode allows to set them as Master/Slave. This mode allows to synchronize many interfaces and mutualize their standalone spaces combining the universes. (up to 32 standalone universes)

A single interface can be define as master, others are automatically set to slaves. Triggers operated on the master interface are passed on slaves. However slaves are not synchronized on play time and keep individual control. Consequently slaves can trig and play different scenes. The master acts like a general remote imposing triggering to the slaves.

Here is two different example or wiring with 3 interfaces plugged as Master/Slave with standard Ethernets cables. You must connect Ethernet sockets 1 or 2 in any order:
SETTNG OF THE MASTER/SLAVE INTERFACES

When multiple interfaces are connected with USB, the standalone mode allows to set them as Master/Slave. This mode allows to synchronize many interfaces and mutualize their standalone spaces combining the universes. (Up to 32 standalone universes)

The Stand Alone mode allows to choose 1 interface and to define this interface as Master from the interface list, it is possible to choose only one to be the Master, all the other one will be configured as slave by default. The interfaces are always ordered by serial number ascending order.

- **MODE MASTER/SLAVE « Default »**

A single interface can be define as master (lower serial number by default), others ones are automatically set to slaves. The master device play the current scene and synchronize the slave ones. The master forces the slave interfaces to play the same scene and the same step at the same time. The slave interfaces are forced to follow the master timings and triggers and they cannot act, play or trigger a scene independently. Master can trigger on and trigger off scenes of the slave interfaces.

- **MODE MASTER/SLAVE « Desynchronized»**

An interface can be define as master, others are automatically set to slaves. All Triggers On or Off operated on the master interface are effective to slave ones. However slave interfaces are not synchronized with master’s timing and keep individual controls. Consequently slaves can trigger and play different scenes at any time and not synchronized with the master ones. The master acts like a general remote imposing triggering to the slaves with total priority. Master can trigger ON and trigger OFF scenes of the slave interface.

- **MODE MASTER/SLAVE « LTP »**

LTP means Latest Takes Priority. All interfaces are defined as slaves. Interfaces are not synchronized with timing and can trigger and play different scenes by itself. However triggers from an interface are passed to the others connected interfaces automatically and slave interfaces are forced to trigger the same scene. Here each interface acts like a general remote imposing triggering to the other slaves without synchronization.

- **THE «NO RELEASE» Option**

This option is only available with LTP or DESYNCHRONIZED modes. Only triggers ON from the master interface are executed and effective. All triggers OFF are ignored and slaves interfaces keep playing their current scene. Each Slave interface can choose to release or not its scene depend on the option is activated or not.
TRIGGERS CONFIGURATION WITH THE SOFTWARE

The Stand Alone mode of the software enables to configure and personalize all the triggers. The information will be directly saved in the DMX interface memory with the memory writing function.

SWITCH TO STANDALONE MODE

When the device isn't connected to the software or has just been powered, it enters in Stand Alone mode after five (5) seconds.

LED BUTTONS TRIGGER

Standalone mode offers 10 buttons that represents the interface LED buttons. From the scene list of the standalone mode, you need to drag and drop a scene on any button to assign a button number.

It's possible to replace a scene by another one or to remove it by pulling it out of the list.

EXTERNAL CONTACT TRIGGERS

The Stand Alone mode offers up to 15 external possible triggers. By selecting a scene in the list, it's possible to choose the external contact number (from 01 to 15) to trigger the scene. By default, the interface gives 4 external contacts (01, 02, 04, 08). To obtain 15 external contacts, you have to use a de-multiplexing interface in order to go from 4 to 15 possible combinations.
DMX IN TRIGGERS VIA ANOTHER DMX SIGNAL IN STANDALONE

The Stand Alone mode offers up to 512 DMX IN channel triggers and up to 255 DMX trigger values per channel. By selecting a scene in the list, it's possible to choose the channel number and the DMX value to trigger the scene. The scene will play when the value of the DMX channel is reached or exceeded.

One DMX Output must be turned into an input in the Options windows. To access this window click on the software menu: Tools > Options then click to select the device section as following:
Follow those steps to set a DMX-IN trigger on a scene or on a program:

Step 1: Go to the scenes list if the editor view.

Step 2: Double click the “Key” cell of the scene to be triggered.

Step 3: Go to the DMX section of the Key window.
Two DMX-IN trigger options are available: DMX Level and DMX Scale, let’s see what the differences are:

**Option DMX Level**
- Choose the input universe and channel
- Choose the trigger level: if you go over it the scene starts and under it the scene stops.

**Option DMX Scale**
- Choose the input universe and channel
- Choose the trigger range of levels: if you go inside it the scene starts and outside it, the scene stops.

With the DMX Scale you can create many triggers presets on a same DMX-IN channel and so starts a suite of scenes on the DMX fader way.
INFRA RED REMOTE TRIGGERS

Standalone mode offers up to 10 triggers with the Infrared remote. By selecting a scene in the list, it’s possible to choose the remote button number (from 01 to 10) to trigger the scene. The other IR remote functions will work as well as the SLIM DMX interface. (Speed, dimmer, scene +, scene -, off).
TIME TRIGGERS WITH CLOCK AND CALENDAR

The Stand Alone mode has an internal clock and a calendar. It's possible to assign a time trigger on every scene of the list. By selecting a scene on the list, it's possible to choose the start and end dates and hours and days of the week. You can thus create a lot of scenarios.

CASE 1: Programming a unique trigger:

- **Start schedule:**
  
  ![Start schedule](image)

  The scene is triggered a single time at the given date and time.

- **End schedule:**
  
  ![End schedule](image)

  The scene is stopped at the given date and time.

CASE 2: Programming a repeating trigger:

- **Start schedule:**
  
  ![Start schedule](image)

  Date from which one the scene will be playable according to the programmed triggers

- **End schedule:**
  
  ![End schedule](image)

  Date after which one triggers will be ignored. With no End date, triggers are permanent
• **List of the months of the year**

![Checkboxes for months]

The 12 check boxes represents the 12 months of the year (J) January to (D) December. The triggers will be performed on the activated months. Next, a daily hours range must be defined.

• **Start and Stop days**

![Input fields for start and stop days]

With a monthly repetition, you can choose the starting and stopping days for each chosen month. In this example triggers can happen between the 1st and the 15th of each chosen month.

• **List of the days of the week**

![Checkboxes for days]

The 7 check boxes represents the 7 days in a week. The triggers will be performed on the activated days only. Next, a time range must be defined.

• **Start time**

![Input field for start time]

The starting time is the time when the scene will be triggered for each chosen day. Of course chosen months, start and end schedule days are included.

• **Release time**

![Input field for release time]

The release time is the time when the scene will stop for each chosen day. Of course chosen months, start and end schedule days are included. The release time is not mandatory, if it’s not defined, the scene will keep playing until another trigger event happens. (Like the triggering of another scene for example).

**NOTE**: For a daily repetition, if the the starting time is later than the release time then the triggering will stopped the next day, even if the next day has not been selected.
SAVE AND RECOVER THE LAST SCENE AFTER THE POWER CUT OFF:

Scenes with a start schedule and a stop schedule are set on a defined time space and can be memorized. The interface save the last scene played before the power cut off and recover it when the power is restored. The scene must obligatory include a start schedule and a stop schedule activate this option.

SCENE TRIGGER PRIORITIES:

When several scenes have the same time trigger (date + hour + minute), only the first scene in the list will be triggered. The rest will be ignored.
DIMENSIONS OF THE INTERFACE

The metric system is used. The unit is mm.

FRONT FACE - 512

![512 Front Face Diagram]

FRONT FACE - 1024

![1024 Front Face Diagram]
Example of Multiple interface connections

Computer:
MAC OS X
Windows

USB

USB 1
Led Player 1024
DMX 1

USB 2
Led Player 1024
DMX 2

USB 3
Led Player 1024
DMX 3

USB Hub

USB 4
Led Player 512
DMX 5

USB 5
Led Player 512
DMX 6

USB 6
Led Player 512
DMX 7

USB 7
Led Player 512
DMX 8

USB 8
Led Player 512
DMX 9
STANDARD DMX 512 INSTALLATION

Datasheet - Standalone Interfaces USB-DMX 512 and 1024 channels