

OVERVIEW

Pathway eDIN Mergers combine two DMX streams in a number of different ways, depending on your application. The DIN form factor makes installation fast and easy.

Modules may be cascaded together, up to four levels deep.

CONNECTIONS

eDIN Mergers feature terminal strips that can be removed from the module to facilitate wiring. Make the following connections, *WITH THE POWER TURNED OFF*:

POWER

The module will run on a range from 9 to 30 VDC at 500mA per card connected. Observe the correct polarity when connecting to the V+ and V-. A second set of terminals are provided on the connector to daisy-chain power to other eDIN modules. A grounding terminal is also provided for connection to earth ground.

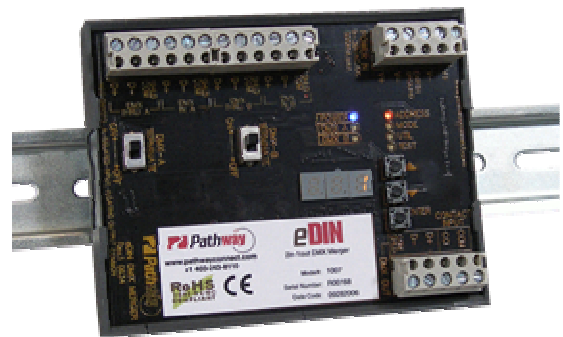
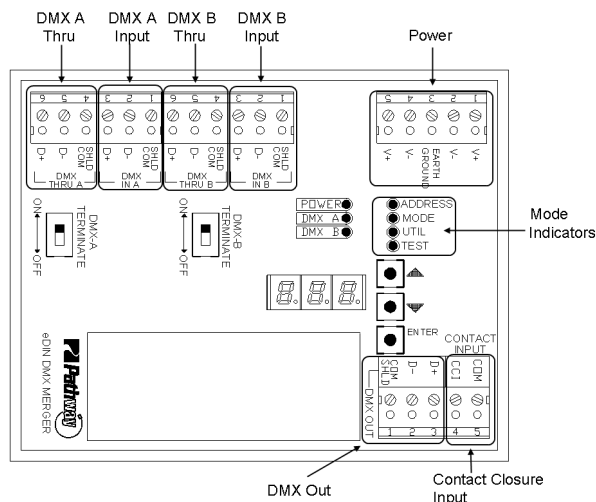
DMX

DMX connections consist of a shield and one or two data pairs. The two DMX IN usually come from control consoles, architectural controllers or opto-splitters. DMX THRU pins on each connector may be daisy-chained to the DMX IN of other eDIN modules or other DMX equipment. DMX OUT sends the merged signal and is connected to the DMX inputs of the appropriate downstream devices.

Connect the DATA+ and DATA- wires to D1+ and D1- respectively for each of DMX A, DMX B and DMX OUT. Observe the same polarity convention throughout the system. Connect the cable shield to the SHLD COM terminal. A DMX reference chart is provided on the next page.

CONTACT INPUT

Pins 4 and 5, on the same terminal strip as the DMX OUT pins, may be connected to an external contact closure. Closing the contact (shorting pins 4 and 5) forces a switch from DMX A to DMX B in operating modes 7 & 8.



STATUS INDICATORS

- POWER** Blue. Glowing steadily indicates power supply OK; off indicates no power.
- DMX A** Amber. Glowing steadily indicates DMX is present on DMX input A; off indicates no incoming DMX
- DMX B** Amber. Glowing steadily indicates DMX is present on DMX input B; off indicates no incoming DMX

CONFIGURATION

The user interface has 2 operating modes: Function and Edit. Press the ▲ or ▼ buttons to cycle through the available functions: ADDRESS, MODE, UTIL, and TEST.

When the LED beside the desired function is lit, press and hold the ENTER button until a dot appears at the bottom right of the numeric display. The card is now in EDIT mode.

ADDRESS sets the DMX offset start-address for modes requiring one. MODE sets the operating mode. UTIL is reserved for future use. TEST toggles each output channel on or off.

When done editing a parameter, press the ENTER button again. The dot will disappear, the parameter will be saved, and the card will be ready for operation.

Hint: You can press and hold the ▲ or ▼ buttons to speed through values.

SET DMX ADDRESS OFFSET

Once in ADDRESS edit mode, press ▲ or ▼ to change the DMX offset start-address to the desired value. Press enter to save the new value.

DMX offset start-address is applied to the DMX B input only, and its effect is dependent on the operating mode of the module.

TEST MODE

Once in TEST mode, press ▲ or ▼ to cycle the display from 1 to 512. The corresponding channel will cut to full and hold. Press ENTER to exit test mode.

While in test mode, normal DMX input will be ignored and only the test channel will be active.

SET OPERATING MODE

Once in MODE edit, use ▲ or ▼ to choose from:

Mode 1: HTP Merge with 2 second status quo

DMX A and DMX B are merged using a highest-takes-precedence comparison, on a channel-by-channel basis. If DMX A channel 5 is at 10% and DMX B channel 5 is at 50%, the DMX output for channel 5 will be 50%. DMX B input will start at the channel number set by DMX address offset. If all DMX input is lost, the last DMX look is maintained for two seconds then stops.

Mode 2: HTP Merge with 5 minute status quo

DMX A and DMX B are merged using a highest-takes-precedence comparison, on a channel-by-channel basis. DMX B input will start at the channel number set by DMX address offset. If all DMX input is lost, the last DMX look is maintained for five minutes then stops.

Mode 3: HTP Merge with offset and 2 sec status quo

Input channels below the DMX address offset on DMX B will be ignored. Channels above and including the offset will be merged with their respective input channels on DMX A using a highest-takes-precedence comparison, on a channel-by-channel basis. If all DMX input is lost, the last DMX look is maintained for two seconds then stops.

Mode 4: HTP Merge with offset and 5 min status quo

Input channels below the DMX address offset on DMX B will be ignored. Channels above and including the offset will be merged with their respective input channels on DMX A using a highest-takes-precedence comparison, on a channel-by-channel basis. If all DMX input is lost, the last DMX look is maintained for five minutes then stops.

Mode 5: Auto Backup with 2 second status quo

DMX B is ignored as long as signal is present on DMX A. If DMX A is lost, the output will immediately switch to DMX B. If DMX A returns, output will immediately switch back. If all DMX input is lost, the last DMX look is maintained for two seconds then stops.

Mode 6: Auto Backup with 5 minutes status quo

DMX B is ignored as long as signal is present on DMX A. If DMX A is lost, the output will immediately switch to DMX B. If DMX A returns, output will immediately switch back. If all DMX input is lost, the last DMX look is maintained for five minutes then stops.

Mode 7: External Backup using a switch, 2 second status quo. DMX B is ignored until the contact closure input is closed (pins 4 and 5 on the DMX OUT shorted). When the contact input is opened, DMX A is immediately restored. Output source is controlled solely by the switch, not loss of signal. If all DMX input is lost, the last DMX look is maintained for two seconds then stops.

Mode 8: External Backup using a switch, 5 minute status quo. DMX B is ignored until the contact closure input is closed (pins 4 and 5 on the DMX OUT shorted). When the contact input is opened, DMX A is immediately restored. Output source is controlled solely by the switch,

not loss of signal. If all DMX input is lost, the last DMX look is maintained for two seconds then stops.

Mode 9: Append with 2 second status quo

DMX B is appended to DMX A beginning at the DMX address offset. The appended channels are not merged. If DMX input is lost, the last DMX look is maintained for two seconds then stops. Ideal for consoles in different rooms accessing separate ranges of the same dimmer rack.

Mode 10: Append with 5 minute status quo

DMX B is appended to DMX A beginning at the DMX address offset. The appended channels are not merged. If DMX input is lost, the last DMX look is maintained for five minutes then stops. Ideal for consoles in different rooms accessing separate ranges of the same dimmer rack.

Mode 11: Test Mode with channel fade

Similar to TEST mode, only the selected channel fades up and down. The default channel is the set by the DMX address offset. If TEST is entered while in this mode, the active channel can be selected using ▲ or ▼. DMX A and B inputs are ignored while in this mode.

Modes 12 –15: Reserved for future use

DMX TERMINATE

The rules of DMX require the last device on a DMX line be terminated with a 120Ω resistor between pins 2 and 3 to prevent signal reflection. The Merger module has termination switches for both DMX A and DMX B. If there is no connection to the DMX THRU terminals, the DMX Terminate switch for that input should be ON. If there are other devices connected to the DMX THRU terminals, the DMX Terminate switch should be OFF and termination be applied to the final device in the daisy-chain.

REMOTE DEVICE MANAGEMENT

The #1007 eDIN Merger is not compatible with the E1.20 Remote Device Management (RDM) protocol. The RDM standard has no provision for signal merging at this time.

DMX REFERENCE

DMX	XLR5 pin	eDIN terminal
Common	1	SHLD /COM
Data -	2	D1-
Data +	3	D1+
unused	4	N/A
unused	5	N/A

SPECIFICATIONS

POWER SUPPLY:	9-30VDC, 500mA
INPUT SIGNAL:	USITT DMX512A
OUTPUT SIGNAL:	USITT DMX512A
CONNECTIONS:	Two piece compression screw terminals Accepts AWG 24 to 14, stranded or solid



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