DMX SuperMUX

USA & Canada

DMX Engineering LLC
http://dmx.engineering

DMX 2:1 or 1:2 Universe Channel Merger/Multiplexer



Product Description

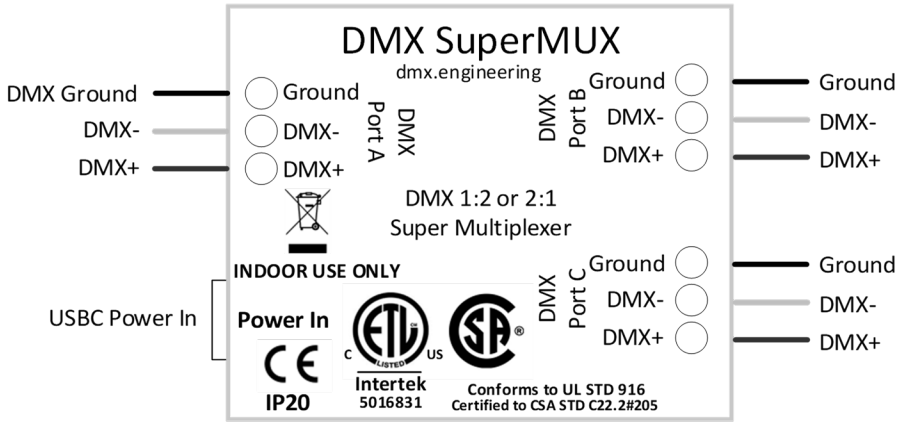
DMX SuperMUX combines two wired DMX inputs into one output, splits one input to two outputs, or generates a test signal on a selected port. Each universe supports 512 channels.

In Merge, Ports B and C feed Port A. Choose Port B Priority, Port C Priority, Highest Takes Priority (HTP), Latest Takes Precedence (LTP), Custom Block or Custom Channel Map.

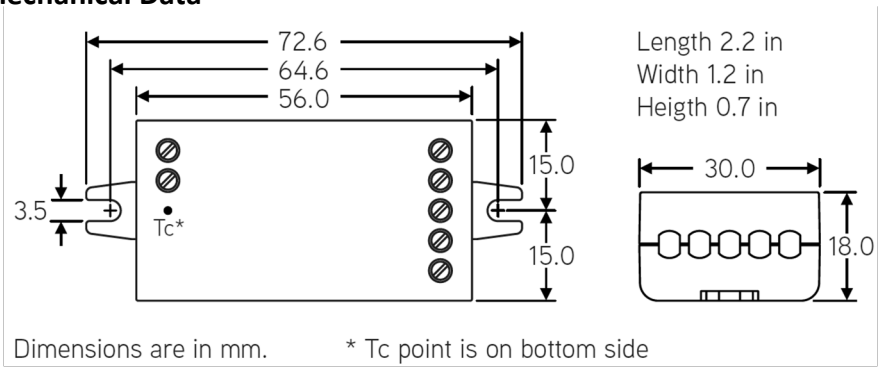
In Split, Port A feeds Ports B and C. Choose Mirror, Quick Assign, Route or Custom Channel Map. Test provides Static, Chase, Fade and Random patterns on A, B or C.

Configure from a phone, tablet or computer using the local web interface. The DMX Engineering app can also open these controls. Wi-Fi provides setup and monitoring; DMX uses the wired terminals. Bluetooth pairing is not required.

Typical Connection Diagram



Mechanical Data



Technical Data

Input
Supply: regulated 5 VDC through USB-C
Input current: max 200 mA

DMX Compatibility
The three ports share a common reference and are not galvanically isolated. Connect Ground, DMX- and DMX+ at each port. Keep connected equipment at a compatible reference.

Internal Web Server
Default hotspot: **SuperMUX-xxxx**
Default password: **12345678**
Hotspot address: **http://192.168.4.1**
The suffix identifies the unit unless customized. No internet connection is needed for local setup.

DMX Channel Mapping
Custom Blocks assign consecutive source channels. Custom Channel Map assigns individual channels. In Split, Route sends each A channel to B, C, both or neither. Mirror copies all 512 channels to both outputs.

Choose the mode and strategy, then press **START** to apply and save. Assign, Apply and Clear controls can change a running custom map immediately; press START after completing edits.

Center Status Light
Solid red means no recent qualifying DMX activity. Off after startup is normal while data flows. Brief startup and connection colors are normal. Valid all-zero DMX counts as activity.

Radio transceiver
Contains FCC ID: 2AC7Z-ESP32S3MINI

Operating conditions
Ambient temperature, ta: -13...+113°F (-25...+45°C)
Max. case temperature, tc: +167°F (+75°C)
Storage temperature: -13...+167°F (-25...+75°C)
Max. relative humidity: 0...80%, non-cond.

Connectors
Wire range, solid & stranded: 0.5 - 1.5 mm^2
14 - 22 AWG, Wire strip length: .25" (6 - 7 mm)
Tightening force: 0.4 Nm / 2.6 Lb-in

DMX Engineering LLC
1908 N 101st Place
Mesa, AZ 85209

Conforms to UL STD 916
Certified to CSA STD
C22.2#205

Installation and first connection

Disconnect power before wiring. Merge: B and C are inputs; A is the output. Split: A is the input; B and C are outputs. For Test, connect a receiver to the selected port and remove any other transmitter from that port. Match Ground, DMX- and DMX+ to the label; use DMX-rated cable and appropriate termination. Power the unit from regulated 5 V USB-C.

1. Join **SuperMUX-xxxx** in your phone or computer's Wi-Fi list. The default hotspot password is **12345678**; use the saved password if it has been changed. Stay connected if the device reports no internet.
2. Open **http://192.168.4.1** in a browser. Select the actual Merge or Split wiring, then use the Wizard or go to the controls.

Join your Wi-Fi network (optional)

3. In **Settings → Join Your WiFi Network**, scan/select your 2.4 GHz network, enter its password and press **Save WiFi Settings**. Wait for the save confirmation and connected status. Changed network credentials start a connection attempt without a routine reboot.
4. Note the displayed network IP. The setup hotspot turns off about five seconds after a stable connection. Join that same network on your phone/computer and open the displayed IP. **http://dmxsm.local** may also work where local-name discovery is supported.
5. Saved Wi-Fi settings survive a normal power cycle. If the network is unavailable for about 30 seconds, the recovery hotspot returns while connection attempts continue. With no network name saved, the hotspot starts immediately. Hotspot name/password changes require a restart; record them first.

Configuration and verification

Choose Merge, Split or Test, configure the strategy or pattern, then press **START**. Require the saved confirmation. Mapping Assign/Apply/Clear buttons can take effect immediately. In Settings, **Favorites name → Save Name** stores a name shown with the IP in the app. Verify changing DMX values on a receiver, then power-cycle and check the saved setup. **Reset Device** restores defaults, including Wi-Fi; it is not a reboot button.

Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Warning

Changes or modifications not expressly approved by DMX Engineering and Design LLC could void the user's authority to operate the equipment.

FCC Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Radiation Exposure Statement for Canada

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

This equipment is exempt from the routine RF exposure evaluation requirements of RSS-102. This equipment should be installed and operated with a minimum distance of 20 cm between the antenna and the user or bystanders.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage;

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Ce matériel n'est pas sujet à l'évaluation habituelle d'exposition RF selon RSS102. Ce matériel devrait être installé et exploité en gardant une distance minimale de 20 cm entre l'antenne et l'utilisateur ou les spectateurs.

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⚠ **WARNING:**
Cancer and Reproductive Harm
www.P65Warnings.ca.gov.

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