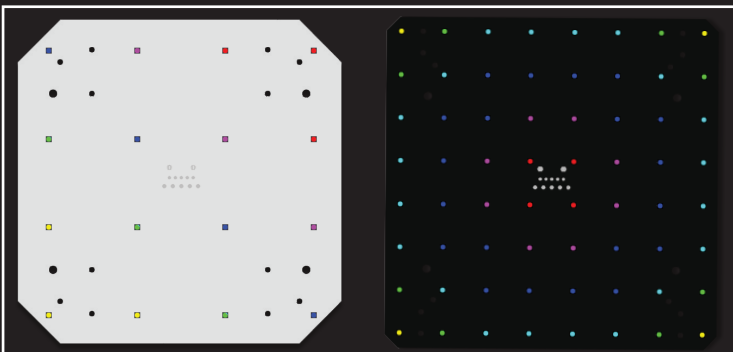




TRAXON **Plus<sup>+</sup>**

# Media Board **Plus<sup>+</sup>**

## INSTALLATION GUIDE



# Content

1.	Safety And Operation	3
2.	Introduction	4
3.	Installation	11
4.	System Config	16
5.	Care and Maintenance	19
6.	Technical Specification	20
7.	Troubleshooting	21
8.	Warranty Statement	21

For your own safety and that of the product, please read this installation guide carefully before beginning setup and installation.

# 1. Safety And Operation



Please read through Safety and Operation before start of the installation.



This device complies with Part 15 of the FCC Rules. Operation is subjected 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.

1. CAUTION - Unplug the power supply from the mains power before connecting any cables as this can damage the products.
2. CAUTION - Avoid looking directly into the LED light source at close range for your own safety.
3. Persons installing this product should make sure:
  - a. The installation complies with all applicable codes, state and local laws, ordinances, standards and safety regulations.
  - b. The installation environment is carefully studied and suitable surge protection measure(s) is taken.
  - c. He or she is qualified for the handling of electrical equipment.
4. Do not attempt to install or use the product until installation instructions and safety labels are fully understood. This product is designed for indoor and outdoor use.
5. Ensure product operates within the specified temperature range.
6. Do not attempt to open the product. Not user serviceable.
7. Do not use the product if any part of it, or the power cables are damaged.
8. Only use product for specified voltage, do not exceed.
9. Always maintain connection to ensure waterproofing.
10. If the product has been subjected to drastic temperature variances, for example, following transportation, do not connect the fixture until it has reached room temperature, as moisture condensation may cause electric shock and product damages.
11. When installing the products and system power supplies, please ensure they will not be exposed to moisture and extreme heat (and direct sunlight for outdoor products). Besides, keep a clean operating environment for the fixtures and system power supplies.
12. Please study this Installation Guide thoroughly and check the latest Technical Specification Sheets available from the Traxon website [www.traxon-ecue.com](http://www.traxon-ecue.com) before setup.
13. Please note that changes or modifications of this product is not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
14. 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 or more 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.
15. Any non-compliance of the Installation Guide will void the Traxon warranty.

# 2. Introduction

## 2.1 General

The Media Board Plus features color-calibrated, controllable ultra-bright SMT LEDs with a 31.25mm [1.23"]/62.5mm [2.46"] pitch, ensuring precise white balance and delivering vivid and vibrant colors. Example applications encompass architectural highlights (on walls, floors, counters, decorative elements) for back lighting in light boxes or stretch ceilings, as well as in light panels, to make an impact at trade fairs.

This product is intended for use in high-quality colored light applications.

**Features:**

- Direct View: RGB
- DMX / e:pix Control
- Daisy Chain System with quick lock connectors
- Auto-addressing
- IP20

Media Board Plus 16PXL Family	Maximum Number of Pixels (PXL)
MEDIA BOARD PLUS 16PXL BOARD RGB WT 62.5 24VDC	16
MEDIA BOARD PLUS 4PXL ADD ON STRIP RGB WT 62.5 24VDC	4
MEDIA BOARD PLUS 4PXL ADD ON BOARD RGB WT 62.5 24VDC	4

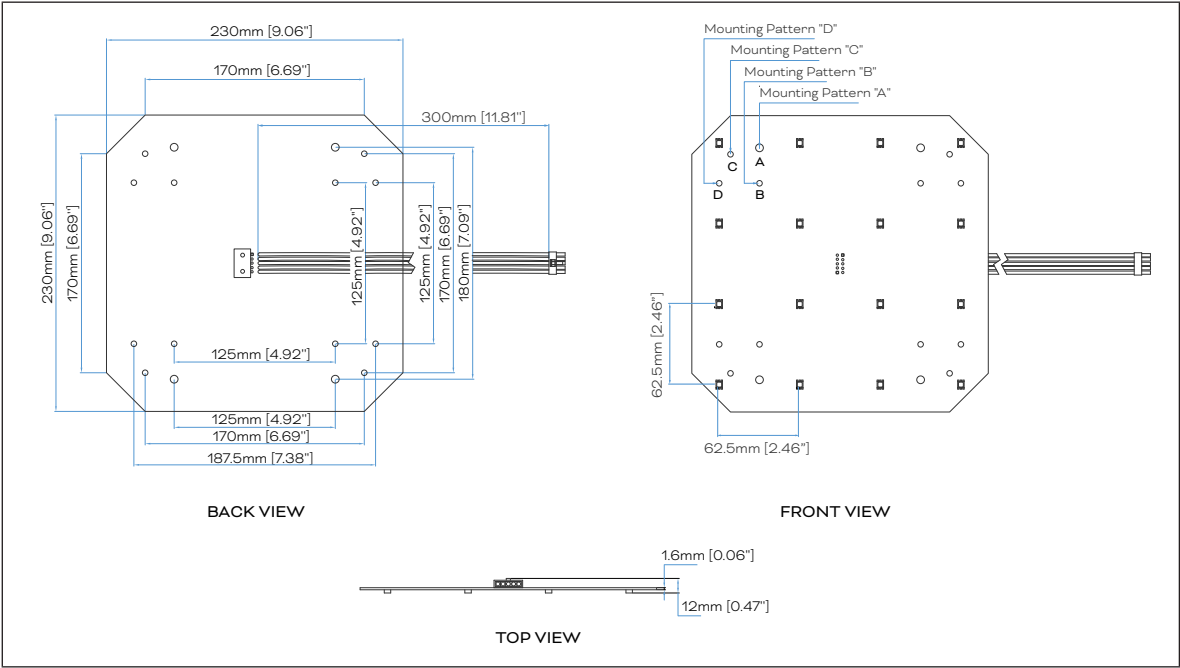
Media Board Plus 64PXL Family	Maximum Number of Pixels (PXL)
MEDIA BOARD PLUS 64PXL BOARD RGB BL 31.25 24VDC	64
MEDIA BOARD PLUS 8PXL ADD ON STRIP RGB BL 31.25 24VDC	8
MEDIA BOARD PLUS 16PXL ADD ON BOARD RGB BL 31.25 24VDC	16

# 2.2 Dimensions

## 2.2.1 Media Board Plus 16PXL Family

MEDIA BOARD PLUS 16PXL BOARD RGB WT 62.5 24VDC

FIG.1: Media Board Plus 16PXL



MEDIA BOARD PLUS 4PXL ADD ON STRIP RGB WT 62.5 24VDC

FIG.2: Media Board Plus 4PXL Add On Strip

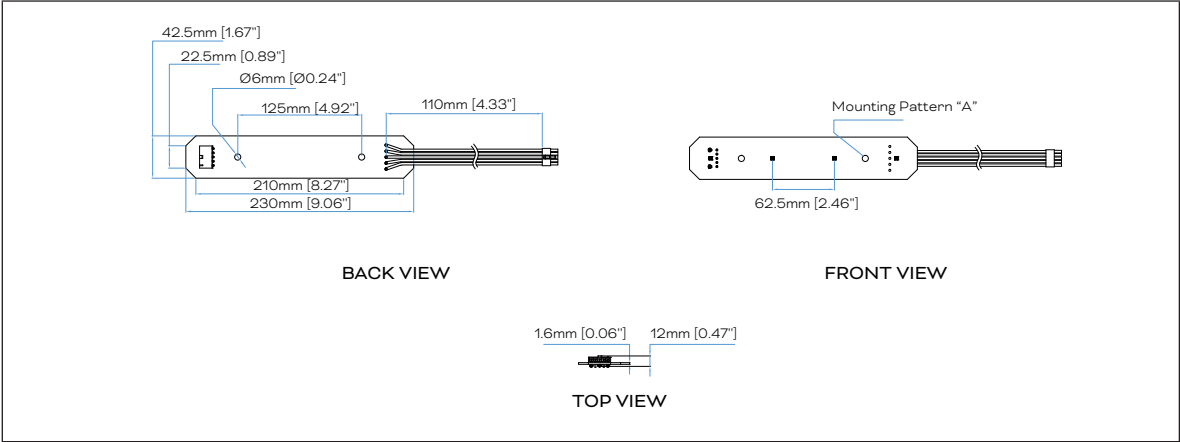
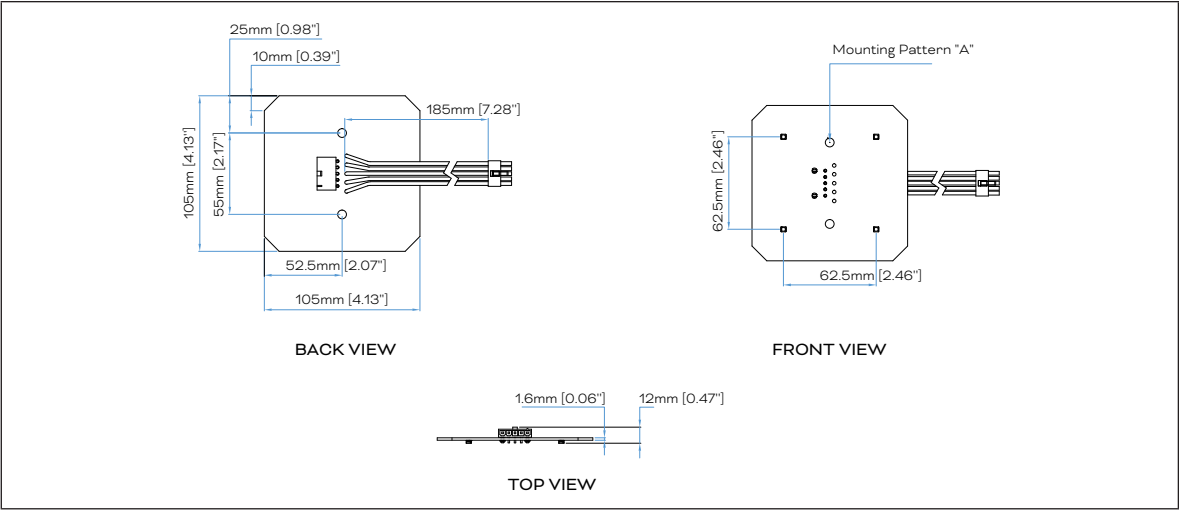
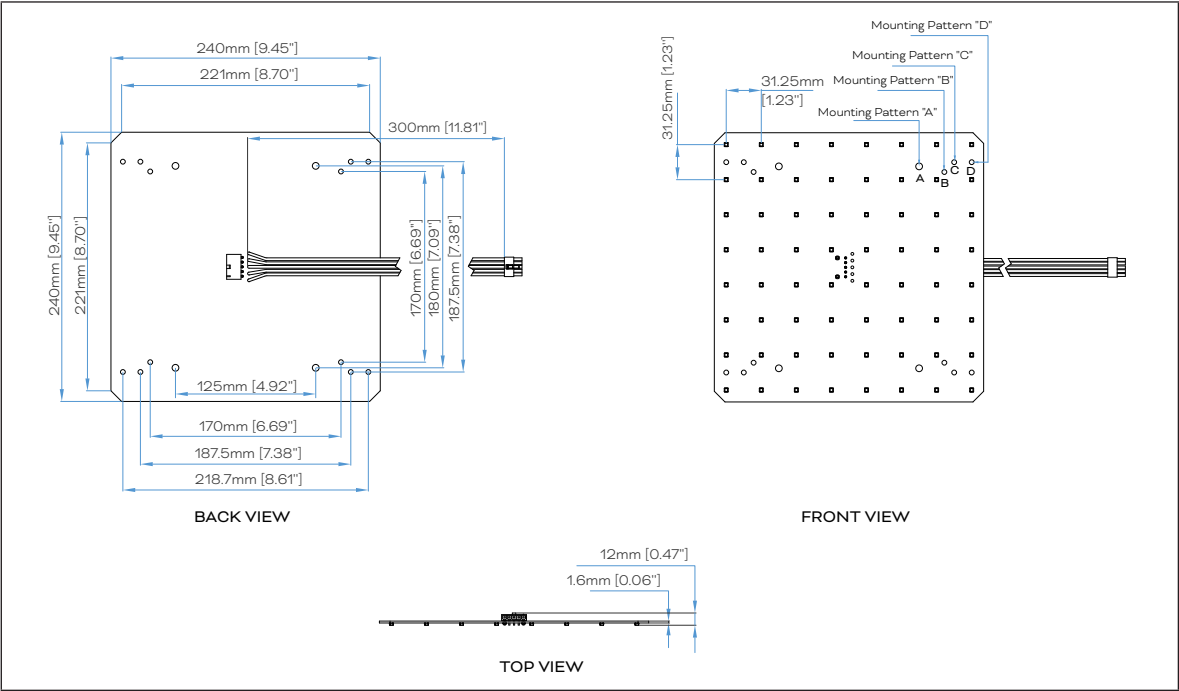


FIG.3: Media Board Plus 4PXL Add On Board



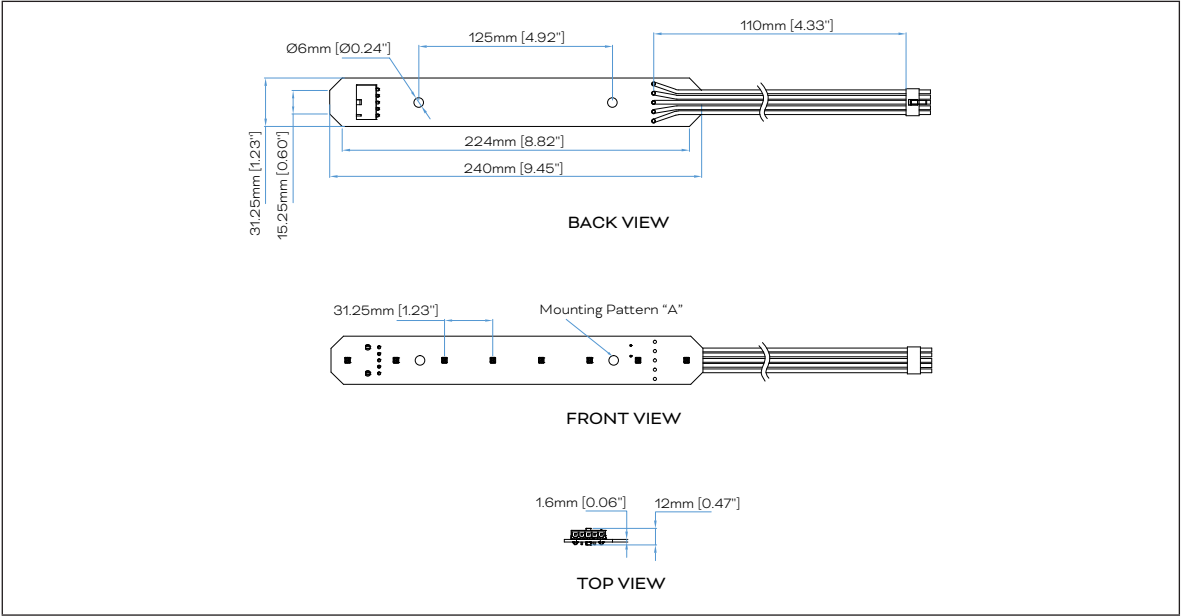
2.2.2 Media Board Plus 64PXL Family

FIG.4: Media Board Plus 64PXL



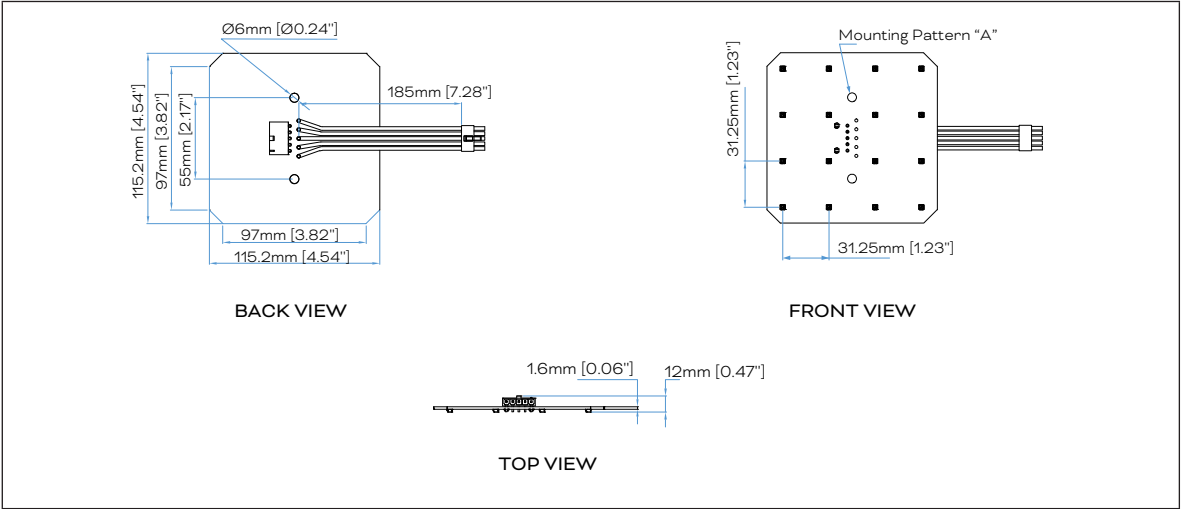
MEDIA BOARD PLUS 8PXL ADD ON STRIP RGB BL 31.25 24VDC

FIG.5: Media Board Plus 8PXL Add On Strip



MEDIA BOARD PLUS 16PXL ADD ON BOARD RGB BL 31.25 24VDC

FIG.6: Media Board Plus 16PXL Add On Board



2.2.3 Accessories

FIG.7: Connection Accessories

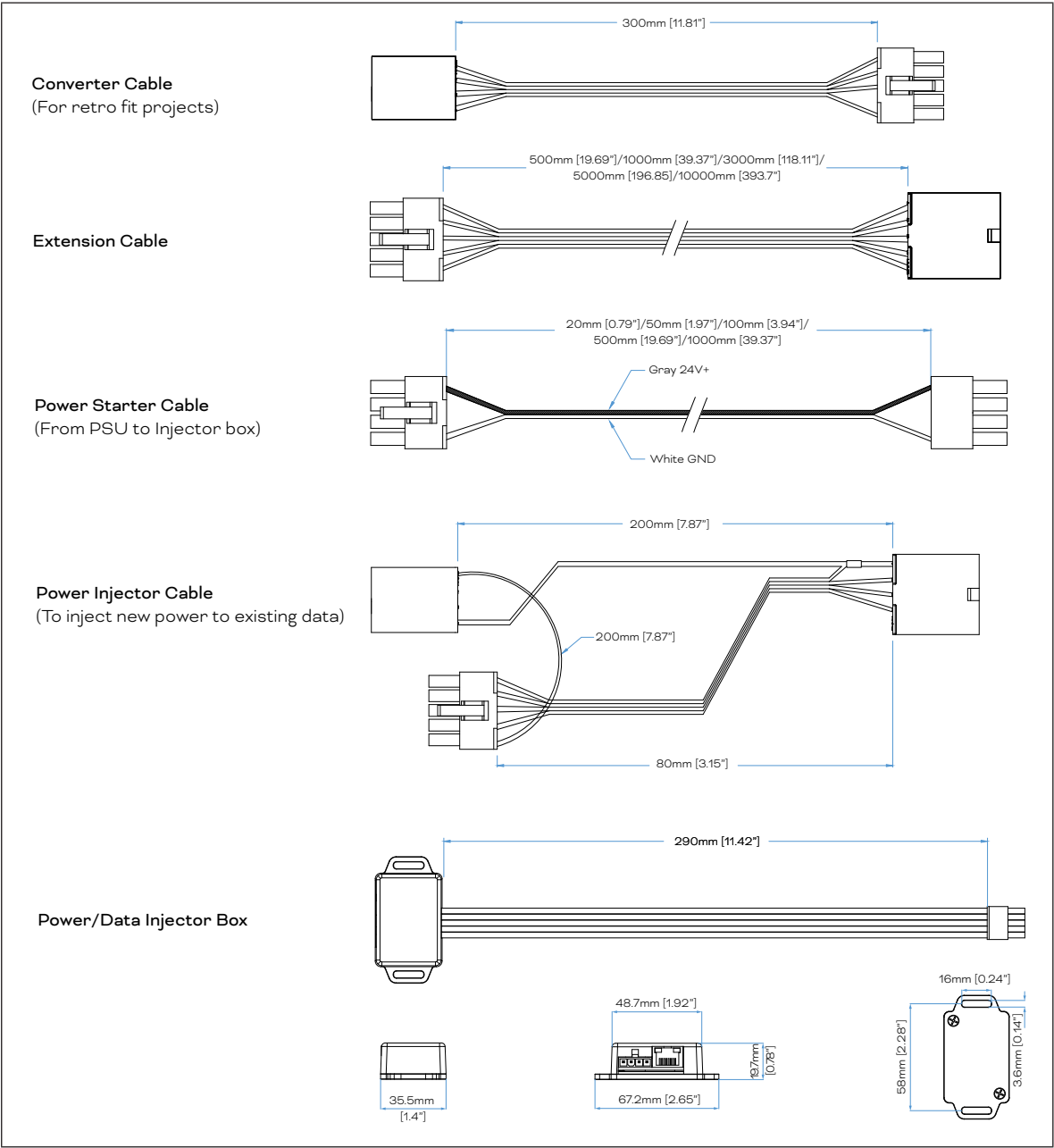
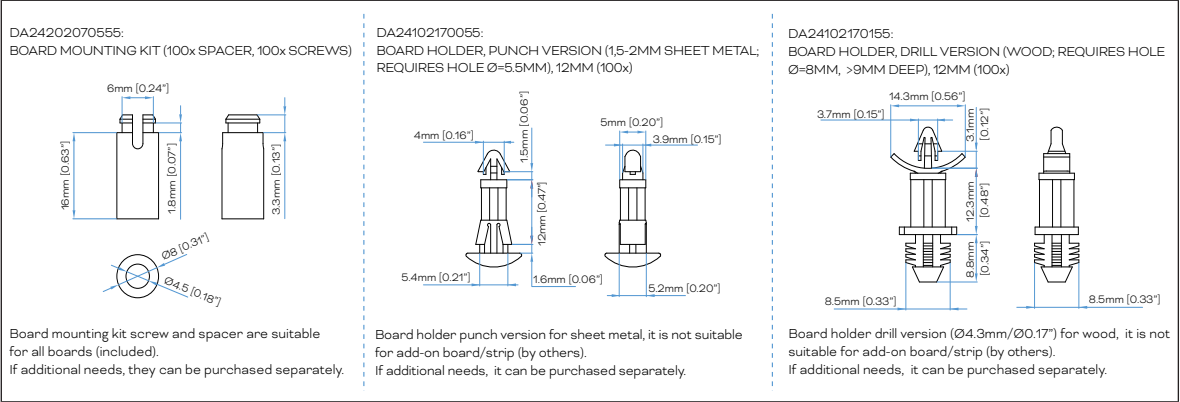




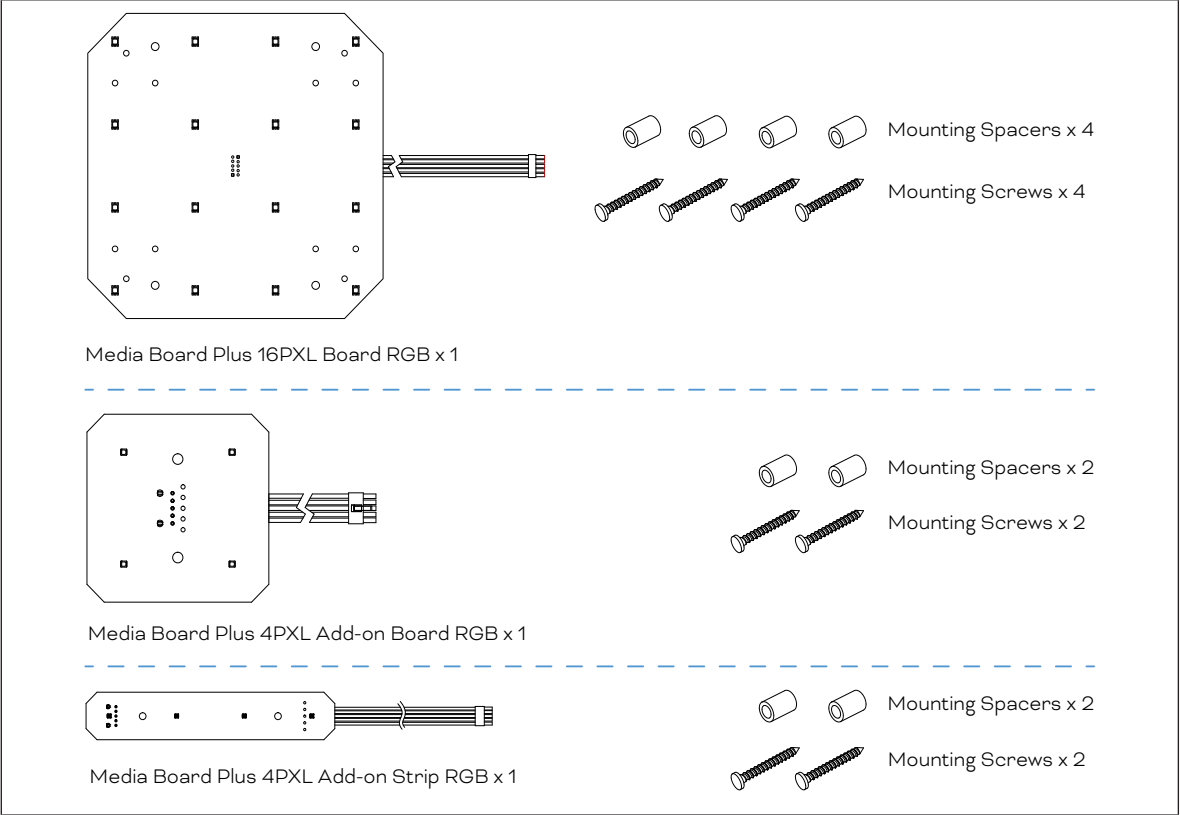
FIG.8: Mounting Accessories



## 2.3 Packing Contents

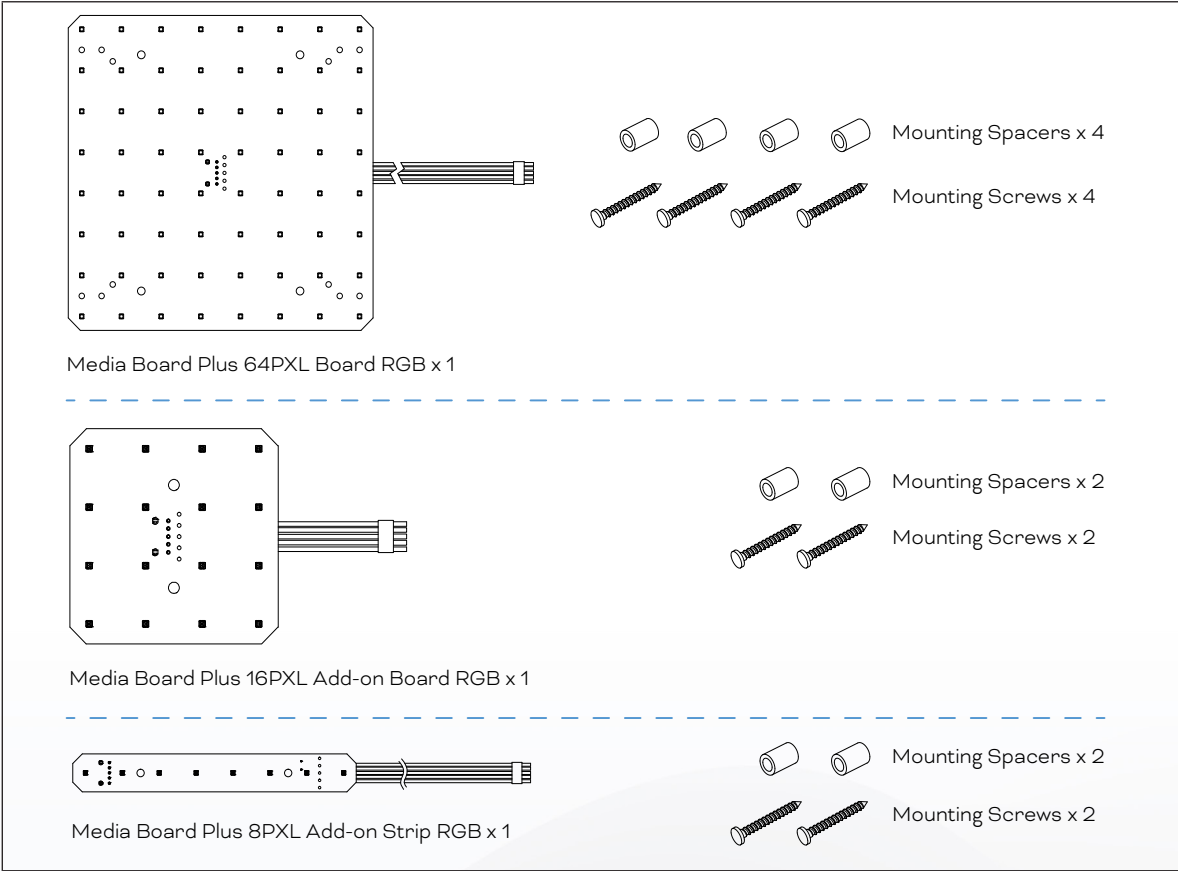
### 2.3.1 Media Board Plus 16PXL Family

FIG.9: Packing Contents



2.3.2 Media Board Plus 64PXL Family

FIG.10: Packing Contents



## 3. Installation

### 3.1 Points To Consider

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Plan your installation before mounting the Media Board Plus. The following should be considered for a successful installation.

- Ambient temperature of installation site.
- Appropriate cable lengths (cable gauges described in system diagram). Please consult your local Traxon office or authorized agent for necessary aid.
- The number of the Media Board Plus and appropriate LED Engines.
- e:pix / DMX512 to be used to control the Media Board Plus.
- Distance between each Board to maintain a consistent pixel pitch.
- Mounting distances should be considered.
- Proper surge protection.

### 3.2 Pre-Installation Checks

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#### 3.2.1 Installation Checklist

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1. Select suitable mounting kits for different mounting surface/plane.
2. Prepare necessary accessories and tools (spirit level, marking pencil etc).
3. Perform functional check of the Media Board Plus. Take care not to damage cables/ connectors during pre-installation checks.
4. Ensure all the Cables, Media Board Plus RGB and LED Engines are initially stored in a dry area, and they are well organized.
5. Ensure all pre-installation checks laid out above have been followed.

#### 3.2.2 Installation Sequence

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1. Measure the correct distances for mounting kits and install the Media Board Plus.
2. Connect the Media Board Plus in the daisy-chain manner outlined in the System Diagram.
3. Perform functional check on all the Media Board Plus and inspect cables and mounting kits for any damage. Check for any abnormalities with the control signal.
4. Report any functional defect found to your nearest Traxon Technologies office. DO NOT attempt to install the Media Board Plus with functional defects on-site.

### 3.3 On-Site Installation

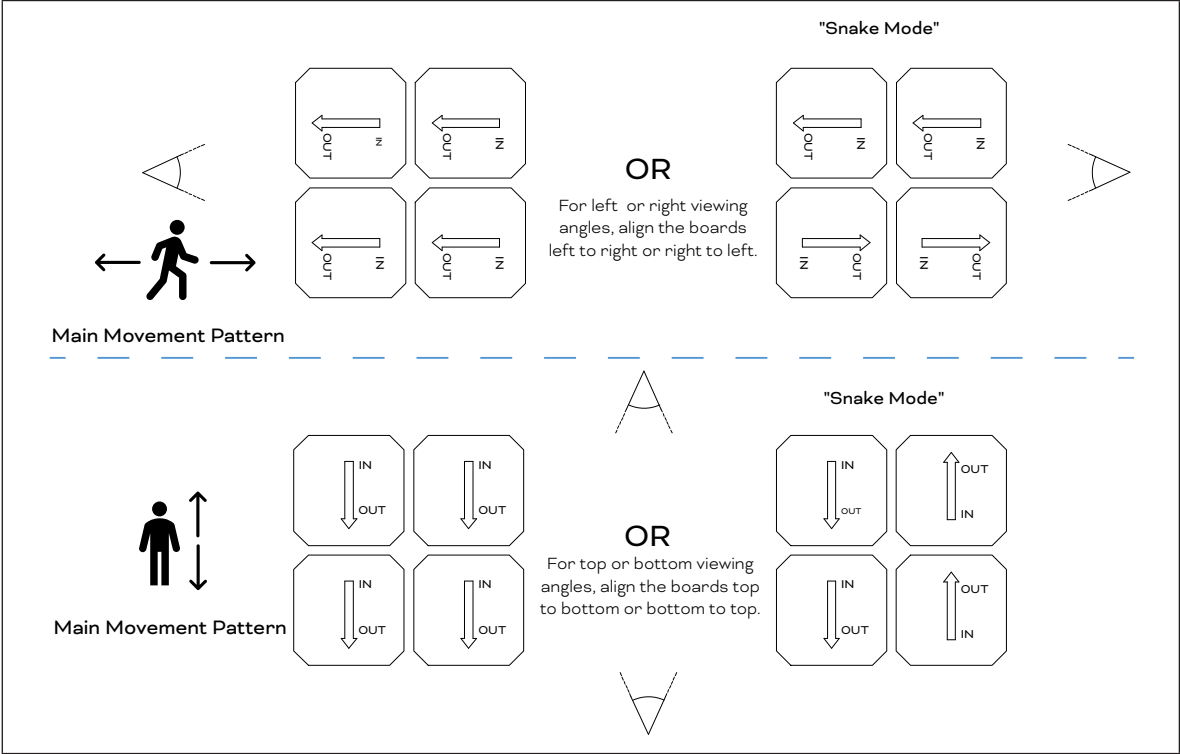


- DO NOT attempt installation in wet or severe weather conditions, especially indoor using products.
- DO NOT leave and expose any Media Board Plus RGB or LED Engines unconnected under wet environment.
- IP failure induced by stressed/damaged cables during or after installation will not be under warranty.
- Always keep the cables protected from sharp objects and ensure no damage is generated on the cable.
- Failure to keep Media Board Plus within the operating temperature range of +5°C to +40°C (+41°F to +104°F) and storage temperature range of +5°C to +60°C (+41°F to +140°F) will void the product's warranty.

#### 3.3.1 On-Site Installation

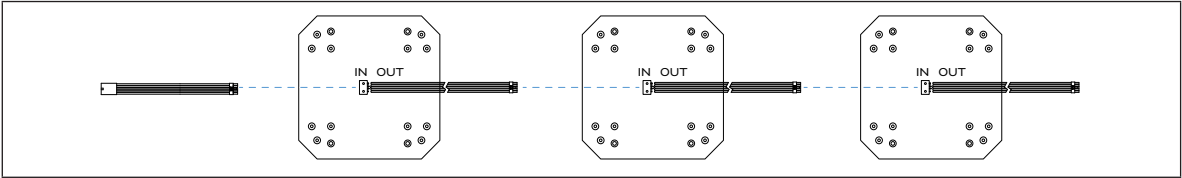
1. For best color mixing results, ensure the boards have the same orientation and remain parallel to the main movement pattern of the viewer. If same orientation cannot be achieved, ensure the orientation of the boards that snake back are 180° to the previous row / column and consider the main movement pattern of the viewer.

FIG.11: Orientation and Color Mixing



- The Media Board Plus are interconnected using the IN and OUT cables/connectors .Connectors will make an audible “click” when connected. Gently pull on the cables in opposites directions to ensure they are fully locked and do not come loose. The below diagram shows the Board connections. (Refer to “4. System Configuration” on page 16 for more details.)

FIG.12: Media Board Plus Connections



- Be sure not to compress the IN/OUT cables.

**NOTE** To keep LED pitch consistent, be sure to keep a Specific distance between consecutive Media Board Plus (See below Mounting Pattern).

FIG.13: Media Board Plus 16PXL Family Mounting Pattern

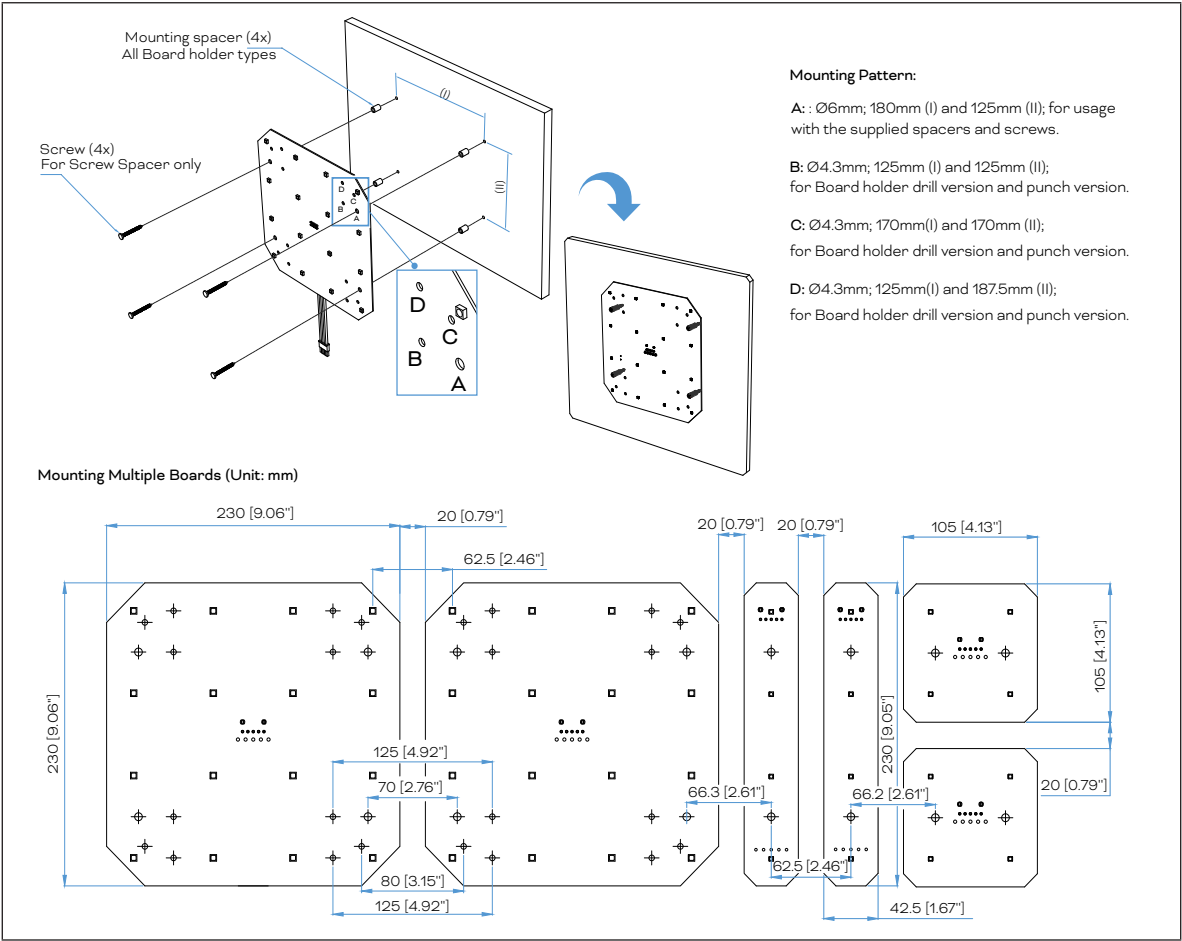
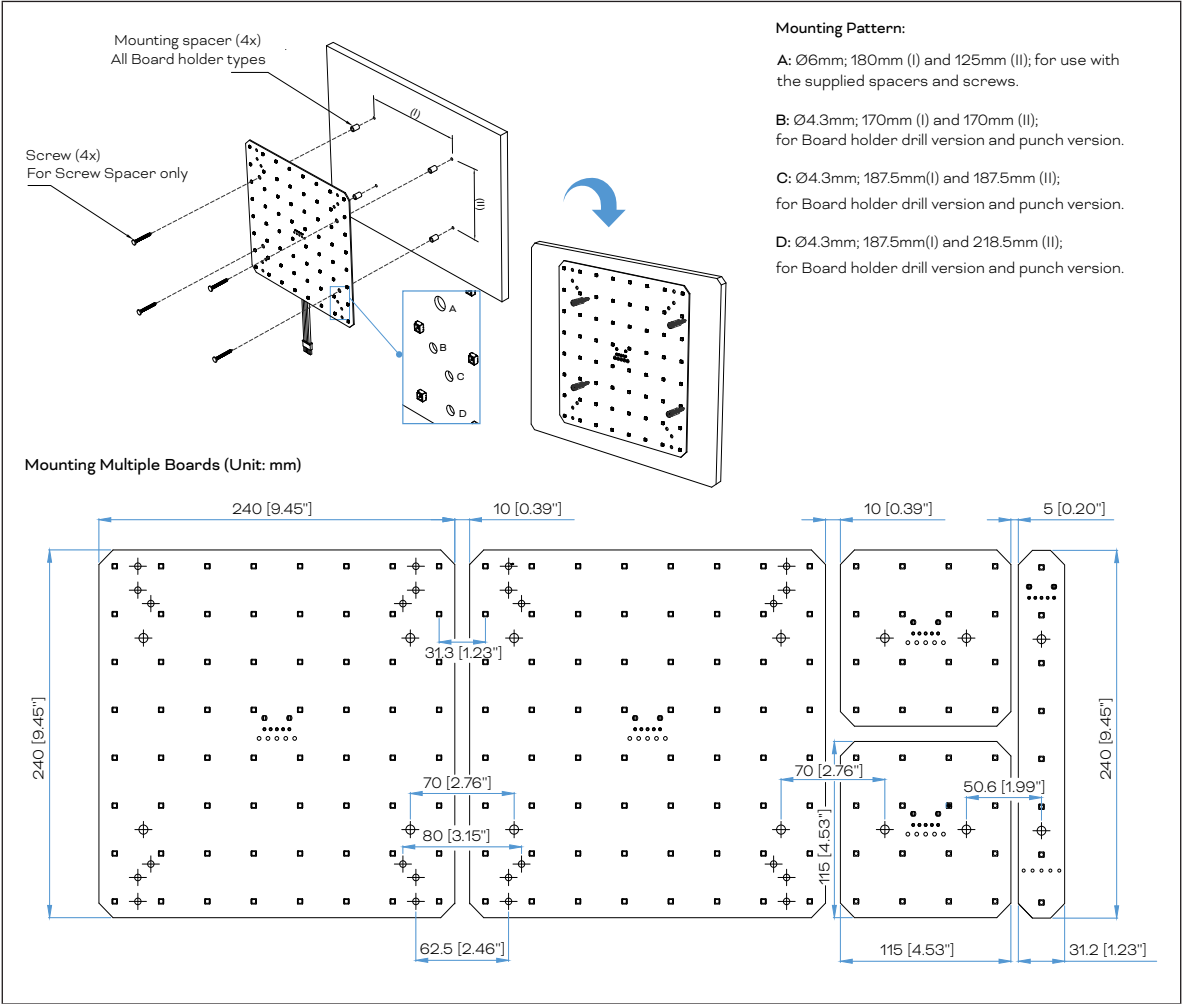
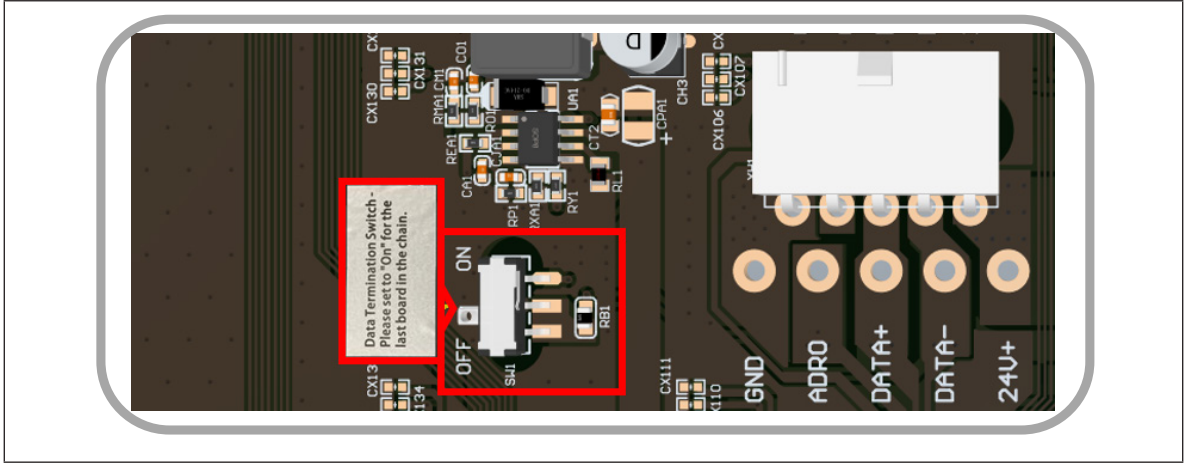


FIG.14: Media Board Plus 64PXL Family Mounting Pattern



4. The first board of the daisy-chain group has to be connected to the control system via Junction Box. Starter cables, Data and Power cables, and video fiber optic cables have to be installed through conduit. For the detail, please find the system diagram.
5. To prevent signal reflection and ensure reliable and stable data communication. Please set Data Termination Switch to "On" for the last board in the chain. The default setting is "OFF".

FIG.15: Set Data Termination Switch



6. Set up the control system indoors as detailed in the system diagram and connect to the Media Board Plus.
7. Start each unit and verify correct function.

# 4. System Configuration

FIG.16: System Diagram for Media Board Plus 16PXL

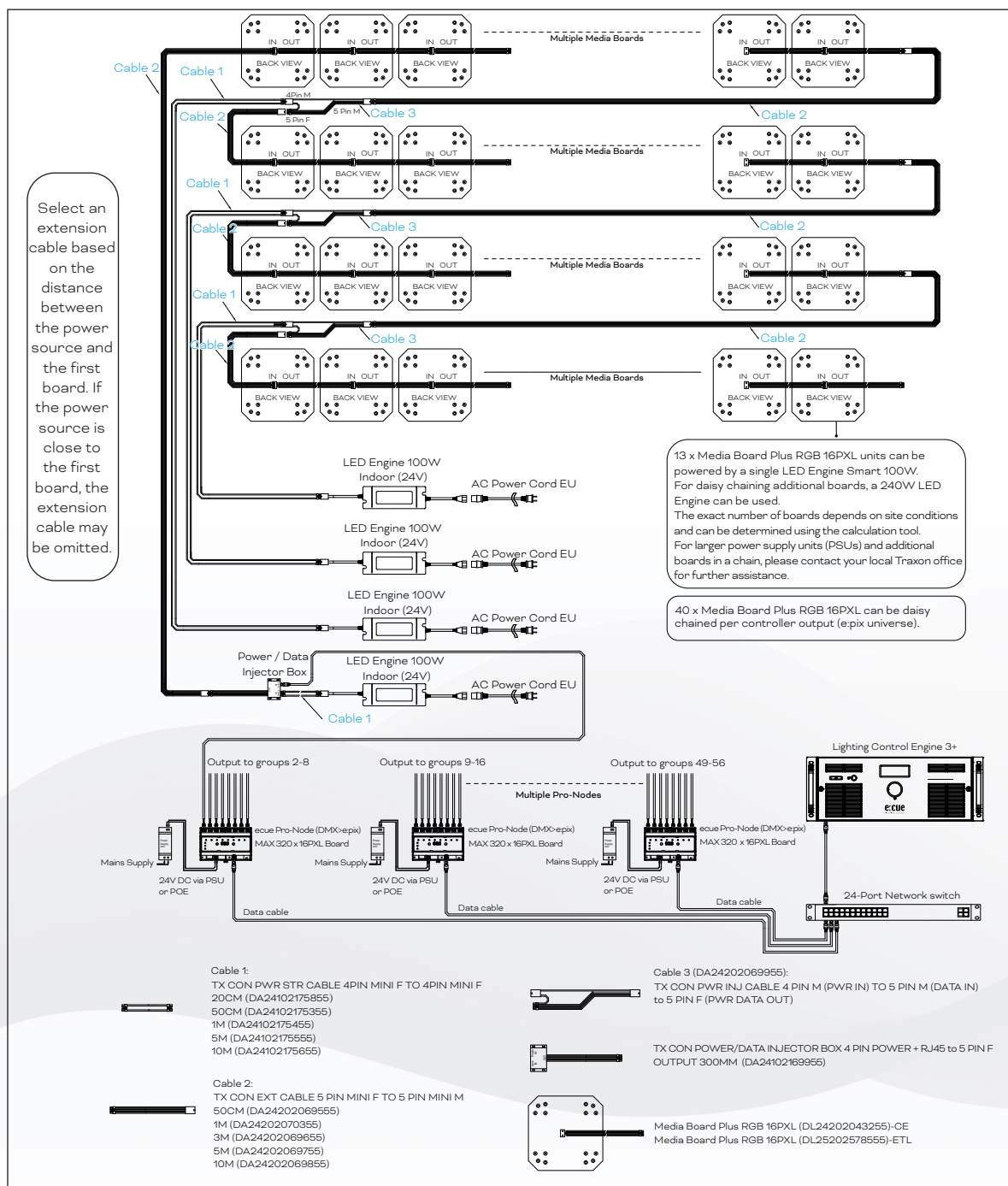
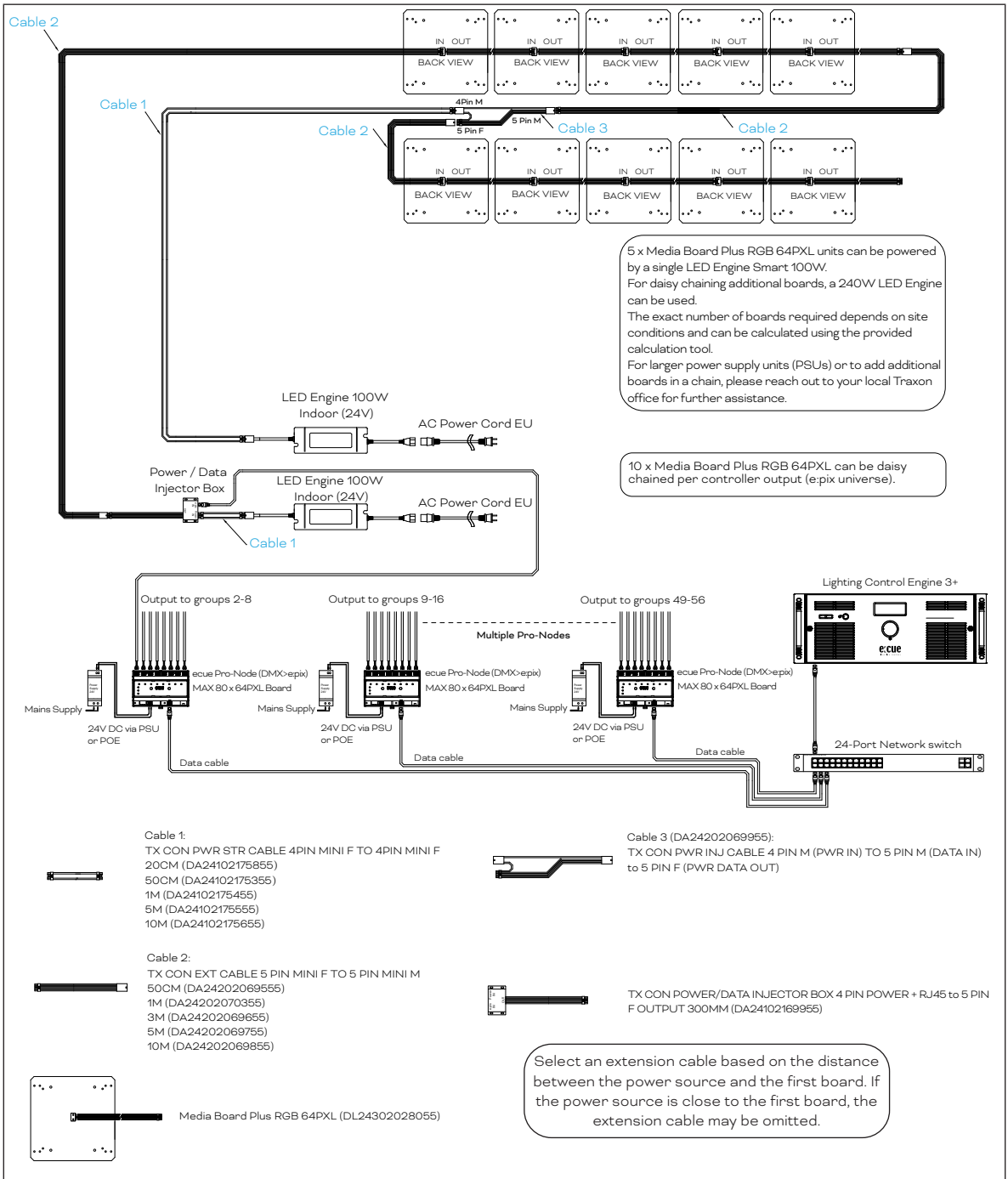


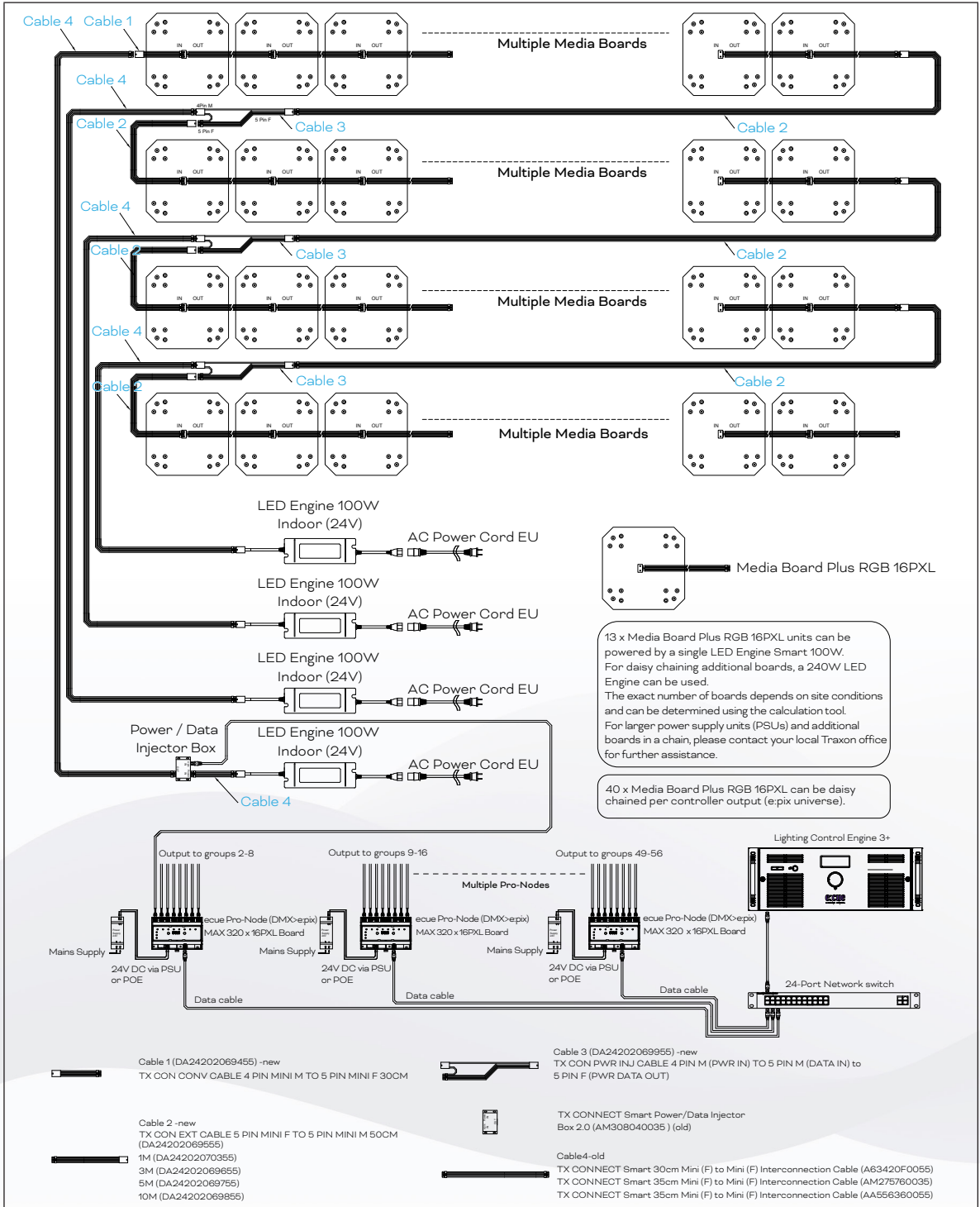


FIG.17: System Diagram for Media Board Plus 64PXL



if the existing project is being partially modified, keeping the current power supply, control, and cables system while only replacing the original boards, then only need to add a convert cable (Cable 1 in FIG.18) to the existing cables system. Take 16pxl boards system as an example.

FIG.18: System Diagram for Partial Retrofit



## 5. Care and Maintenance

Traxon products are of superior design and quality and should be treated with care. The recommendations below will help fulfill any warranty obligations and gain good use and longevity from the products.

- Do not attempt or use the product(s) until you read and understand the installation instructions. Failure to adhere to these instructions could result in serious injury or property damage.
- Do not use product(s) if cables are damaged.  
When routing cables, ensure the bending radius complies with product specifications (e.g.,  $\geq 6$  times the cable diameter). Avoid sharp bends or forced folding that may cause insulation layer rupture. In areas where cables may contact sharp edges (e.g., metal brackets, screws) or be exposed to external impacts, install abrasion-resistant sleeves, corrugated conduits, or secure cable trays. Secure cables with cable ties, clips, or similar fasteners at intervals of  $\leq 50$ cm. During bundling, avoid excessive compression. Never use metal wires to directly bind cables, as they may damage the insulation.
- Do not connect cables and connectors when wet or in wet area. Moisture on bare connectors can cause electric shock and damage to product(s).
- Do not use product(s) in extreme heat environment. Ensure there is sufficient airflow and use cool air circulation if required.
- Do not drop, knock, or shake product(s). Rough handling can damage the electronics and void the warranty.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean products. Wipe with a damp cloth on housings and a dry cloth on electronics to remove dirt or dust.
- Do not attempt to service or repair the product(s) unless done by an authorized service personnel. Contact your local Traxon office or distributor for details.
- If the product is not working as specified, please contact your nearest authorized service center or Traxon Technologies office for assistance.
- The light source of this luminaire is not replaceable; when the light source reaches its end of life the whole luminaire shall be replaced.

## 6. Technical Specification

For detailed product specifications, please refer to the product data sheet or [www.traxon-ecue.com](http://www.traxon-ecue.com).

As with all electronic devices, LED output degrades over time - a term called lumen depreciation. This also explains why it is nearly impossible to expect photometric performances of two LED products with different service life spans to be the same. The rate of LED degradation is a complex function of many factors such as operating efficiency, duration of continuous operation, and operating conditions (e.g. ambient temperature).

Because LEDs are semiconductor devices, their performances are subject to inherent variability commonly found in semiconductor industry. To improve consistency in performance across the same product, LED manufacturers “sort” LEDs into bins according to different preset parameters, such as forward driving voltage, illumination, etc. Whereas binning is a sorting function, it is not a correction process. Inherent variability in the manufacturing process always results in different binning distributions according to different production lots. Traxon uses automatically binned LEDs on its products, thereby minimizing output variations within the model range.

# 7. Troubleshooting



CAUTION: Ensure power supply is OFF when disconnecting / connecting cables.

Problem	Cause	Possible Solutions
Product does NOT light up after installation	Incorrect power connection	<ul style="list-style-type: none"><li>— Check Mains Power</li><li>— Check power supply leads and wire connections</li><li>— Ensure output wires are connected with proper polarity</li><li>— Check if LED Engine’s secondary output is working as specified.</li></ul>
Shadowing	Light source covered	<ul style="list-style-type: none"><li>— Check for cables, wires or unwanted debris covering LED light source</li></ul>
Modules are dim	Excess products connected	<ul style="list-style-type: none"><li>— Ensure the power supplies are not overloaded due to an excess of products connected</li></ul>
Flickering	Incorrect power input/Excess products connected	<ul style="list-style-type: none"><li>— Ensure the input voltage is correct</li><li>— Ensure the power supplies are not overloaded due to an excess of products connected</li></ul>

If problems persist or the product is not working as specified, please contact your Traxon Technologies office for assistance.

# 8. Warranty Statement

Traxon Technologies warrants its Products against material or workmanship defects for a period of five (5) years from date of invoicing, provided that the purchased items are used under the conditions stated in this user manual.

Please refer [www.traxon-ecue.com](http://www.traxon-ecue.com) for all warranty terms and conditions.



# TRAXON

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