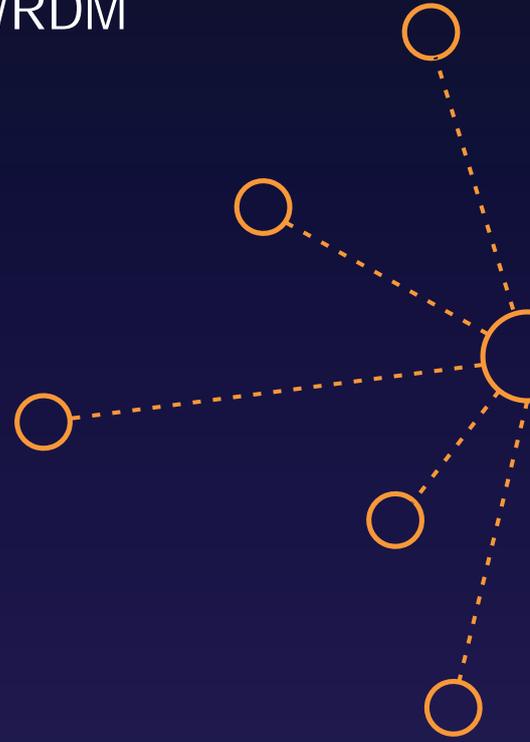


Revolutionary Wireless DMX/RDM



**M**  
Multiverse®

**CITY**  
**THEATRICAL**  
NEW YORK • LONDON

Made in USA

# Multiverse: Expanding the World of Wireless DMX

After 20 years of pioneering wireless DMX and RDM for entertainment and architectural lighting, City Theatrical has developed its revolutionary **Multiverse® wireless DMX/RDM** system broadcasting as many as 10 universes of DMX/RDM data from a single transmitter, with the ability to use less radio energy than present-day single universe systems.

## Multiverse marks our fifth generation of engineering development.

All previous wireless DMX control systems have suffered from a basic limitation: they are only able to transmit and receive a few universes of DMX data before their radio energy overpowers the spectrum and prevents their signals, and the signals of other devices in the venue, from accomplishing their mission. With this constraint, large scale multiple universe wireless systems simply have not been possible to achieve. In addition, the broadcast spectrum in which DMX systems operate has become overcrowded with other radio signals causing additional interference issues.

Faced with these challenges, we began to plan a new system of wireless lighting control that could be scaled up to unprecedented levels without overpowering the spectrum. Our mission therefore was to be able to deliver more data using less radio energy.



### Solution: Multiverse Module

We achieved our goal with the creation of our Multiverse Module. Every product in the Multiverse wireless DMX system is built around these tiny circuit board mounted devices, as an embodiment of this breakthrough technology.

More Data Using  
Less Radio Energy

## Key Features and Benefits

### Flexibility & Scalability

Multiverse components can be set up as single or multiple universe configurations. Using our plug and play wireless Multiverse SHoW Baby or Multiverse Nodes, single universe systems can be created quickly and easily. Using a single Multiverse Transmitter, you can create a system of up to 10 universes.

### Ease of Use

Components are easily set up and users can configure their system and then control its fixtures using Streaming ACN or Art-Net, or convenient smartphone based interfaces such as our DMXcat Bluetooth app or other Wi-Fi controllers, like Luminair.

### Two 2.4GHz Radio Operation

2.4GHz operation is usable worldwide, and for the first time, Multiverse users can broadcast as many of 10 universes of wireless DMX/RDM on two radios in the 2.4GHz band at the same time.

### PoE (Power over Ethernet)

Power the Multiverse Transmitter and receive sACN at the same time, without a power cord or external DC adaptor.

### Backwards Compatibility

Multiverse products can be used seamlessly with highly popular City Theatrical legacy wireless DMX products, including SHoW DMX SHoW Baby®, SHoW DMX Neo®, and SHoW DMX Ver0® and SHoW DMX Ver0 Net®.

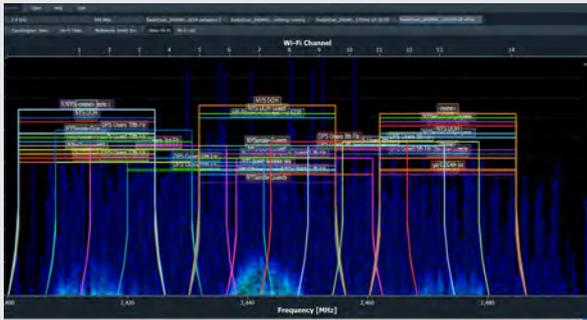
### RadioScan® Spectrum Analyser

RadioScan can help improve all Multiverse broadcasts by helping the user select the optimum area in the spectrum to place their broadcast. RadioScan coordinates with Multiverse to help select optimum SHoW IDs.



# Why couldn't all DMX data be sent wirelessly before Multiverse?

Until now, wireless DMX lighting control systems have suffered from a basic limitation: They are only able to transmit and receive a few universes of DMX data before their radio energy overpowers the spectrum and prevents their signals, and the signals of other devices in the venue, from accomplishing their mission. Thus, large scale multiple universe installations have not been possible.



A sample real-life crowded radio spectrum, shown in RadioScan software program.

Faced with this challenge, City Theatrical set out to create a totally new way of controlling live entertainment equipment that would overcome this hurdle and pave the way for the future of wireless data distribution for entertainment and architectural lighting. After years of research, development, and complex engineering, our team of experts has achieved our goal and is proud to offer Multiverse - breakthrough technology that delivers much more DMX data while producing less radio energy.



## Smartphone Control

Multiverse Transmitter allows smartphone control of Multiverse equipped lighting fixtures by use of our free DMXcat app.



## Forward Error Correction

Allows the Receiver to detect and correct errors that may occur in the wireless transmission of data.



## RDM Integration

When Multiverse radios are implemented by a manufacturer of a lighting fixture, they become an integrated part of that device. Lighting users simply look for the fixture they want to communicate with, not the radio in addition to the feature, for a simpler selection process.

# Breakthrough Innovations

Multiverse's patent-pending wireless DMX/RDM technology enables scalability of wireless lighting data like never before. It allows larger and larger systems to be scaled up without producing harmful amounts of radio energy that could disrupt other wireless systems in the venue, as well as the following innovative features.



## More DMX Data, Less Radio Energy

With Multiverse Module technology in every Multiverse product, the Multiverse wireless DMX/RDM system can broadcast up to ten universes of DMX data while using less radio energy than other single universe wireless DMX transmitters.



## Simultaneous Two-Radio Operation

Two radios broadcasting simultaneously in the 2.4GHz band can broadcast as many of 10 universes of wireless DMX/RDM at the same time.



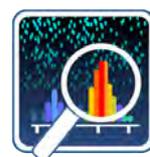
## mDMX

mDMX is a form of DMX optimised for wireless broadcast that dramatically reduces data being broadcast, thereby reducing unneeded radio energy.



## mRDM

Multiverse is able to broadcast RDM information without disrupting the DMX broadcast, a feature unique to Multiverse.



## RadioScan

The RadioScan Frequency Analyser works with Multiverse and guides the user to the best area or the spectrum to place their broadcast.



## SHoW Key Security

SHoW Key is an additional three-digit code that can be added to the Multiverse SHoW ID to prevent any other system on the same SHoW ID from interfering with your system.



## Lock PIN

When using a smartphone with the DMXcat® app, a four-digit PIN can be applied to the Multiverse Transmitter for authorised users.



## Low Cost Technology

Multiverse Modules are the lowest cost full featured DMX/RDM product ever, making them ideal for lighting manufacturers.

# Multiverse Module

| P/N  | Frequency |
|------|-----------|
| 5994 | 2.4GHz    |
| 5995 | 2.4GHz    |

## For OEM Partners

**Multiverse® Modules are best suited for lighting equipment manufacturers who are interested in adding wireless DMX to their products.**

Due to low cost, increased data transport, and ease of design integration, Multiverse Module marks the first time the implementation of a wireless DMX chip in every DMX device is possible. The Multiverse Module is available in two types for the 2.4GHz band for use worldwide, either including a PCB trace antenna or not. All versions have a U.FL connector to connect to an external antenna.

Multiverse Modules are available on reels for surface mounting. The OEM Implementation Kit includes a detailed guide, equipment, test gear and more. Contact City Theatrical for more information.



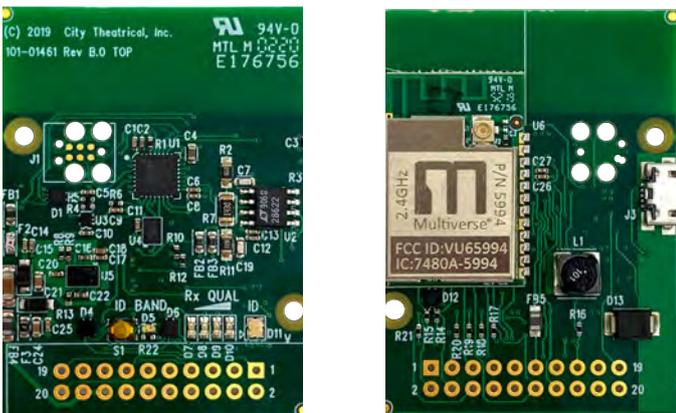
Shown at actual size.

# Multiverse Receiver Card

| P/N  | Frequency |
|------|-----------|
| 5906 | 2.4GHz    |

## Implement Wireless DMX/RDM Into Lighting Equipment in a Simple Way

Shown at actual size.



### Key Features

- Supports ANSI E1.11 DMX512-A and E1.20 RDM
- DMX RS-485 driver on board with ±60V protection
- Signal Quality LEDs on board and external connections
- SHoW ID RGB LED on board and external connections
- Multiverse Band LED on board and external connections
- Wide input voltage range, 5V to 30Vdc
- Footprint 50mm (2") x 38mm (1.5")
- +3.3Vdc output to power low current hosts
- Configurable over USB micro B connector
- Firmware updatable over USB micro B connector
- Advanced Mode features:
  - 0-10V output
  - Four PWM control outputs

**Multiverse Receiver Cards are products that any lighting user, including manufacturers with low volume products, can use to implement wireless DMX/RDM into entertainment projects or equipment, including props, costumes, or lighting fixtures, in a simple way.**

Multiverse Receiver Cards are full Multiverse wireless DMX/RDM receivers without the housing, XLR connectors, and user interface as used in wireless DMX receiving products like the Multiverse Node and Multiverse SHoW Baby. Multiverse Receiver Cards include an internal antenna and a connection to an optional external antenna. Configuration for Multiverse Receiver Cards is done via RDM with the DMXcat app, or with City Theatrical's USB Configuration Program for PC/Mac. In addition to receiving wireless DMX and outputting wired DMX, the Multiverse Receiver Card can output 0-10V, and has four PWM control outputs.



# Multiverse SHoW Baby

| P/N  | Frequency |
|------|-----------|
| 5900 | 2.4GHz    |



**Right out of the box, Multiverse® SHoW Baby® is compatible with all SHoW Babys ever made.**

With tens of thousands of units sold since their introduction in 2011, SHoW Baby plug and play transceivers set the standard for ease of use and reliability at an affordable price point. The addition of Multiverse radio technology enhances their performance even more.

City Theatrical's Multiverse SHoW Baby is a wireless DMX transceiver that delivers breakthrough plug and play wireless DMX and RDM transmission. In its default mode, it works like all other SHoW Baby Transceivers with six user selectable SHoW IDs. By connecting an RDM controller, like DMXcat® Multi Function Test Tool, all of the revolutionary 2.4GHz Multiverse SHoW IDs are accessible. Users can add to their existing SHoW Baby systems, build new single universe Multiverse systems, or use Multiverse SHoW Baby as a receiver on multiple universe systems with a Multiverse Transmitter.

## The Fourth Generation of the Original Plug and Play Wireless DMX Transceiver System

### Key Features

- Built-in 2.4GHz Multiverse radio (for worldwide use)
- All SHoW DMX Neo and 2.4 GHz Multiverse SHoW IDs are available through RDM
- In Multiverse mode, compatible with all Multiverse products. In SHoW DMX Neo mode, compatible with all SHoW DMX Neo legacy products.
- Plug and Play selection of Transmitter or Receiver function
- 5 Pin XLR DMX input and output
- 7.5 to 30VDC power input
- Molded plastic enclosure



Transmitter set to SHoW ID 117



Receiver set to same SHoW ID

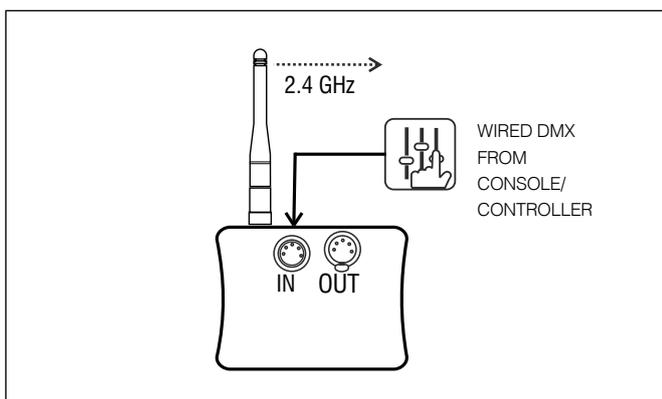


Set SHoW IDs on back of unit

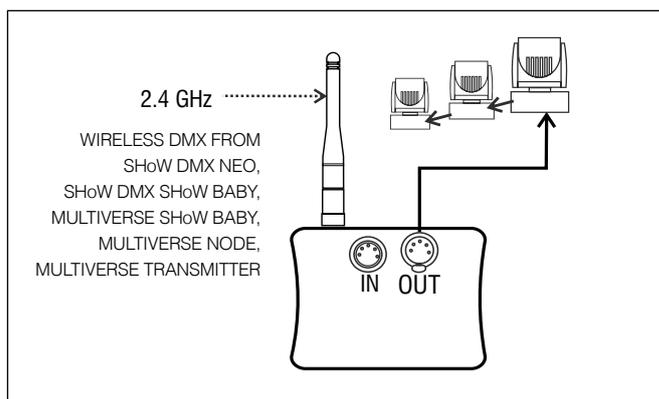
### What's in the box:



### Tx SCHEMATIC



### Rx SCHEMATIC



# Multiverse Node

| P/N  | Frequency |
|------|-----------|
| 5903 | 2.4GHz    |



# Single Universe Plug and Play Simplicity

## Key Features

- Built-in 2.4GHz radio allows the user to select which single universe to transmit, and which radio band to use via the SHoW ID
- As a single universe receiver as part of a multi-universe system, users can select which universe to receive
- A very simple user interface to set SHoW ID and universe
- Rugged cast aluminum enclosure
- 5 Pin XLR DMX input and output
- 5 to 30VDC power input via locking barrel connector

## The Multiverse® Node is the first building block of the Multiverse system.

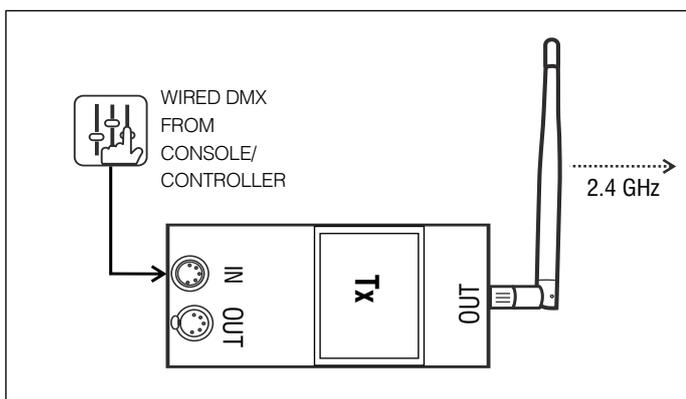
Each Multiverse Node is a transceiver. As a single universe transmitter, it functions in a similar plug and play manner to our Multiverse SHoW Baby®, but contains two radios (North America version only) and a full user interface. As a receiver, it is the primary single universe stand alone receiver in the Multiverse system, and can be part of a larger multi-universe setup.



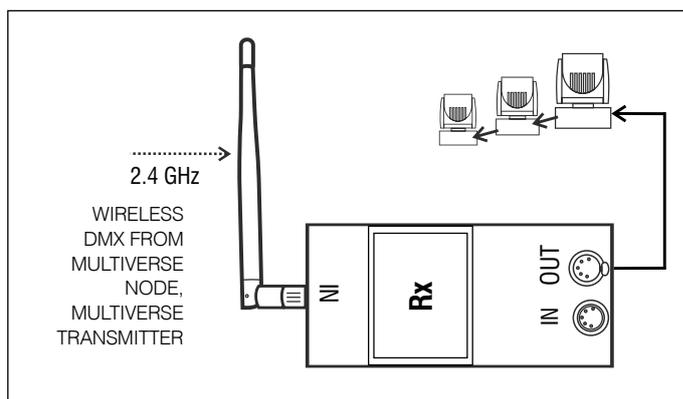
## What's in the box:



Tx SCHEMATIC



Rx SCHEMATIC



# Multiverse Transmitter

| P/N  | Frequency   | Universes |
|------|-------------|-----------|
| 5911 | 2.4GHz (x2) | 10        |



## The Multiverse® Transmitter opens a new world in wireless DMX/RDM.

Its Ethernet input allows it to take in Streaming ACN (sACN) or Art-Net and to transmit between eight and 10 user-selectable universes of DMX/RDM, depending on the Multiverse Transmitter used, with the ability to use less radio energy than a present day single universe wireless DMX transmitter.

The Multiverse Transmitter has a Bluetooth radio receiver built in that allows it to communicate with City Theatrical's multi award winning DMXcat® app from the user's smartphone. This gives the user smartphone control of any lighting fixture that is part of the Multiverse setup, whether it is a lighting fixture with a Multiverse Module inside, a lighting fixture receiving its data from a Multiverse Node, or any wired fixture downstream of those devices.

The Multiverse Transmitter is Wi-Fi enabled, allowing for communication and control from tablet based Wi-Fi lighting controllers like Luminair.

What's in the box:



# Multiple User Control Using Bluetooth Or Wi-Fi

## Key Features

- Four radios: Bluetooth and Wi-Fi for inputs, and two 2.4GHz radios for Multiverse wireless DMX/RDM output
- Ethernet input for sACN and Art-Net
- All setup and user choices made with our free DMXcat app
- Rugged cast aluminum enclosure
- A hanging bracket is included for hanging from a pipe or truss
- Additional user control via DMXcat app or Luminair
- Power Input: AC, DC, PoE

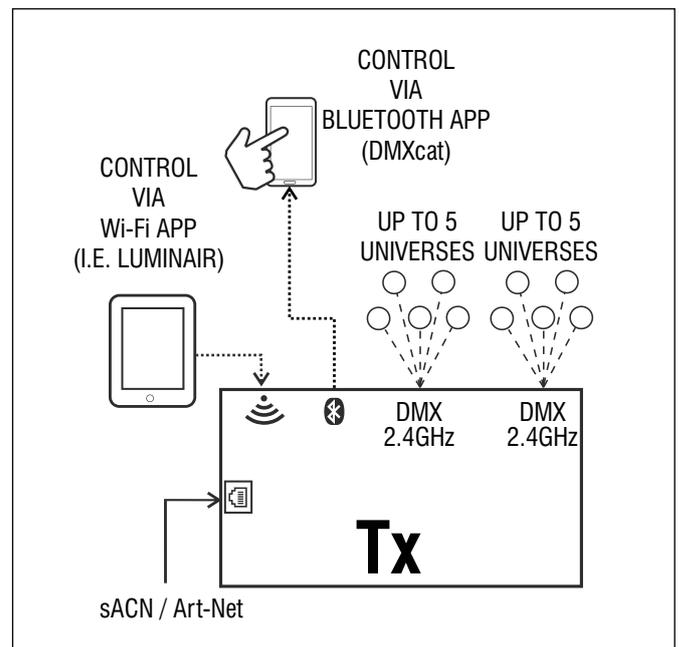


Pipe Mount



Pipe Mount

## SCHEMATIC



# Multiverse Vero Transceiver

| P/N       | Frequency |
|-----------|-----------|
| 7400-5903 | 2.4GHz    |



**The Multiverse® Vero Transceiver brings the advanced features of the Multiverse wireless DMX/RDM system to outdoor installations for architecture and entertainment.**

The Multiverse® Vero Transceiver 2.4GHz brings the advanced features of the Multiverse wireless DMX/RDM system to outdoor installations for architecture and entertainment. The 7400-5903 Multiverse Vero Transceiver 2.4GHz contains a 2.4GHz radio for worldwide use, which allows the user to select which single universe to receive, and which radio band to use via the Multiverse SHoW ID.

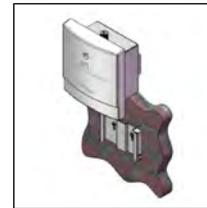
The Multiverse Vero Transceiver is housed in a NEMA 4 / IP66 package that provides protection from the outdoor elements. Its internal backlit LCD display makes setup easy and gives feedback on system performance. Each unit comes with a 2.5dBi outdoor omni-directional Antenna.



## Outdoor-Rated Wireless DMX/RDM

### Key Features

- Built-in Multiverse 2.4GHz Frequency Hopping Spread Spectrum radio
- Compatible with all Multiverse and legacy SHoW DMX Neo products
- User can select a single universe to receive
- Four button user interface screen to set SHoW ID, universe, and other functions
- DMX In (when used as transmitter) and Out (when used as receiver) via 3 pin Screw Terminal
- Rugged weatherproof aluminium enclosure
- Antenna: Omni Broadband, 900MHz/2.4GHz, 2.5dBi/2.5dBi



Wall Mount



Pipe Mount



# RadioScan Spectrum Analyser

| P/N  | Frequency                      |
|------|--------------------------------|
| 5988 | 902-928MHz and<br>2.4-2.483GHz |



**RadioScan Spectrum Analyser is a 2.4GHz spectrum analyser that enables you to easily visualise radio energy that is otherwise invisible to you.**

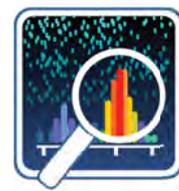
Using RadioScan helps you to create a broadcast plan that optimises available spectrum in your area, and helps prevent interference with other mission critical radio devices near you.

RadioScan shows all radio activity near you in your chosen frequency, including frequency hopping gear like wireless DMX, as well as Wi-Fi networks, Bluetooth, wireless headsets, video transmitters, cordless phones, baby monitors, and microwave ovens. RadioScan can view spectrum data either in Spectrogram View or Waterfall View, and snapshots can be taken of both in the program. Scans of any length can be recorded, saved, emailed and played back with the RadioScan software, without the need for the RadioScan hardware dongle.

For users of Multiverse® wireless DMX/RDM products, RadioScan will guide you in creating the optimum broadcast plan for your production.



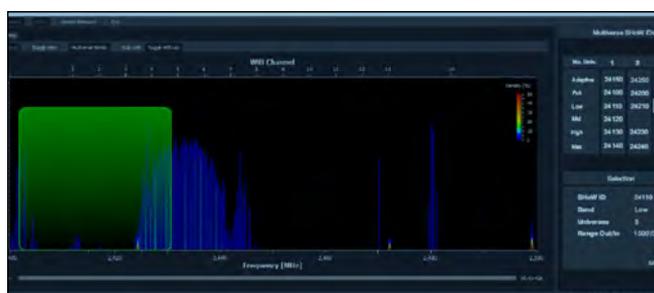
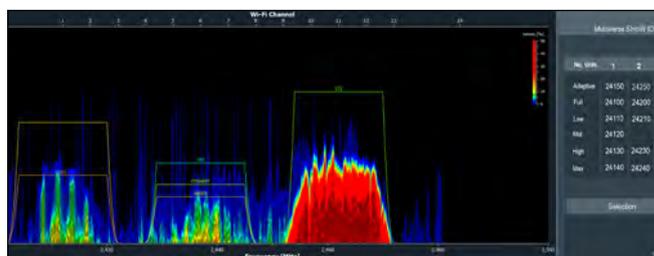
## Easily Visualise Radio Energy and Create Broadcast Plans



**RadioScan®**

### Key Features

- 2.4GHz spectrum analyser
- Finds all radio activity nearby in chosen spectrum
- Identifies SSID and signal strength of Wi-Fi networks
- Shows either Spectrogram or Waterfall view
- Can record and play back scans of unlimited length
- Takes and saves snapshots
- Records text notes on scans
- Prompts Multiverse SHoW IDs



# DMXcat Multi Function Test Tool

P/N | 6000

Anyone Can Turn on Any DMX Device,  
From an LED PAR to a Complex  
Moving Light DMXcat®

## Key Features

- Built-in LED flashlight
- Audible alarm (for locating a misplaced unit)
- LED status indicator
- XLR5M to XLR5M Turnaround
- Removable belt clip
- Optional accessories include: XLR5M to RJ45 Adapter, XLR5M to XLR3F Adapter, XLR5M to XLR3M Turnaround, and Belt Pouch



City Theatrical's DMXcat system is designed for use by the lighting professional who is involved with the planning, installation, operation, or maintenance of theatrical and studio lighting equipment.

The system consists of a small interface device and a suite of mobile applications. Together, they combine to bring DMX/RDM control plus several other functions to the user's smartphone. DMXcat works with Android, iPhone, and Amazon Fire, and can function in seven languages: Spanish, French, German, Italian, Korean, Japanese, and English, depending on your mobile phone's native language setting.

The DMXcat's interface device is a compact battery powered unit which fits easily in a pocket or tool pouch or may be worn on a belt. It uses Bluetooth LE technology for communication with the smartphone/applications (up to 50' range). Without being physically connected, the user can move about the workspace and operate the various apps while still using the phone for on-the-job communication. The device's five pin XLRF connector/cable assembly allows it to be connected to any point in a DMX data chain to allow testing and or control of the various DMX/RDM slot functions. It is charged using a standard USB to Micro USB cable and charger.



What's in the box:

## Apps Included with the basic configuration include:

- **DMX Controller:** A single universe (512) DMX channel controller with two user interfaces.
- **Fixture Controller DMX:** Test app for multi-attribute fixtures with built in database of lighting fixtures.
- **RDM Controller:** App for bi-directional communication/control of RDM enabled devices.
- **DMX Tester:** Permits users to analyze and or adjust settings for transmitting or receiving DMX.
- **RF Spectrum Analyser** (Android only): For surveying and visualising Wi-Fi networks.
- **DIP switch calculator:** This app simplifies the configuring of DIP switches used for setting DMX addresses.
- **Light Metre** (Android only): Useful for setting light levels for on-camera use.

# Multiverse Studio Receiver

| P/N  | Frequency | Universes |
|------|-----------|-----------|
| 5905 | 2.4GHz    | 1         |

## 20-Hour Battery Life Wireless DMX Receivers Designed for Film, Video, and Events



**The Multiverse Studio Receiver brings the advanced features of the Multiverse wireless DMX/RDM system to the film and video world, where fast setup and reliability are key objectives.**

The Multiverse Studio Receiver contains a long-life lithium-ion polymer battery giving 20 hours of use. The Multiverse Studio Receiver has a full four button user interface with a backlit LED display that makes setup easy and gives feedback on system performance.

The 5905 Multiverse Studio Receiver contains a 2.4GHz radio, which allow the user to select which single universe to receive, and which radio band to use via the Multiverse SHoW ID.

The DMX corded connector allows the Multiverse Studio Receiver and external to hang below the lighting fixture, giving improved data fidelity.

### Key Features

- Transmit and receive on the 2.4GHz band
- Long Life Rechargeable Battery: 20 hour battery life with default settings
- Rugged and Splashproof: An IP61 rated plastic case, making it splashproof and rainproof (but not for permanent outdoor use).
- User Selectable SHoW IDs: City Theatrical has always produced wireless DMX products that allow the user to select the optimum transmission method. Users may select full bandwidth hopping, hopping limited to a section of the spectrum (including areas of the spectrum outside of the Wi-Fi range), or adaptive hopping.



*What's in the box:*



# Multiverse Studio Kit

| P/N  | Frequency | Universes |
|------|-----------|-----------|
| 5939 | 2.4GHz    | 1 - 10    |

All the Tools Lighting Technicians Need to Quickly Plan, Setup, and Operate Wireless DMX/RDM for Film, Video, and Events



**The Multiverse Studio Kit brings the advanced technology of Multiverse wireless DMX/RDM system to the film and video world, featuring Receivers with 20 hour battery life and contactless charging in an easy to use kit.**

The Multiverse Studio Kit provides all the tools lighting technicians need to quickly plan, setup, and operate wireless DMX/RDM on set. It includes:

- Six battery powered Multiverse Studio Receivers
- One Multiverse Transmitter with hanging bracket and clamp (for multi universe broadcasts)
- One Multiverse Node with hanging bracket and clamp (for single universe broadcasts)
- One DMXcat Multi-Function Test Tool (to turn on and troubleshoot any lighting fixture on set)
- One RadioScan Spectrum Analyser (for broadcast planning)
- Six USB-A to USB-C cable, 1m
- One Power Cord, PowerCON True 1, 8' long
- Pelican case with contactless charging

Just drop the Multiverse Studio Receiver onto its slot in the Multiverse Studio Kit case, and it will begin charging. Individual chargers and USB cables are also included to enable charging or powering individual units outside the case.



Multiverse Studio Receivers charging in the Multiverse Studio Kit.

# Multiverse Studio Add On Kit

| P/N  | Frequency | Universes |
|------|-----------|-----------|
| 5941 | 2.4GHz    | 1 - 10    |

## Scalable Multiverse Wireless DMX in a Contactless Charging Case



### Expand your Multiverse Studio Kit

The Multiverse Studio Add On Kit provides six additional Multiverse Studio Receivers for users to expand upon their full P/N 5939 Multiverse Studio Kit.

Just drop the Multiverse Studio Receiver onto its slot in the Multiverse Studio Add On Kit case, and it will begin charging. Individual chargers and USB cables are also included to enable charging or powering individual units outside the case.

Each Add On Kit includes:

- Six Multiverse Studio Receivers
- Six USB-A to USB-C cable, 1m
- One Power Cord, PowerCON True 1, 8' long
- Pelican case with contactless charging

Multiverse Studio and the Multiverse Studio Add On Kit



Multiverse Studio Receivers charging in the Multiverse Studio Add On Kit.

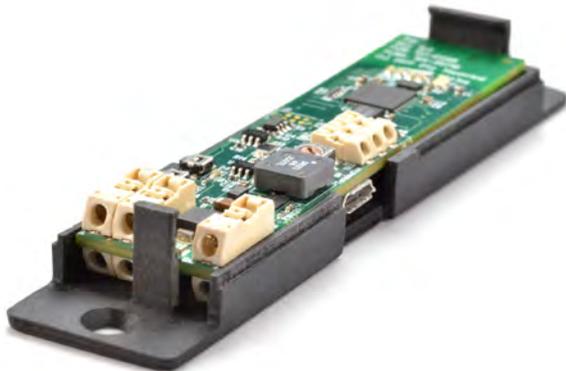
# QolorFLEX 2x2.5A Multiverse Dimmer

| P/N  | Frequency | Universes |
|------|-----------|-----------|
| 5916 | 2.4GHz    | 1         |

Designed for Props,  
Costumes, Wands,  
and Candles



**QolorFLEX®**  
PROFESSIONAL LED LIGHTING



**QolorFLEX® 2x2.5A Multiverse® Dimmers are small, constant voltage, two-output dimmers designed to be mounted in small spaces such as props, costumes, wands, and candles.**

These dimmers can be controlled wirelessly using City Theatrical's Multiverse or SHoW DMX Neo wireless DMX/RDM technology, or with wired DMX.

Each dimmer provides 20-bit PWM resolution and extremely smooth dimming at the low end of the dimming curve, with four DMX personality options, including:

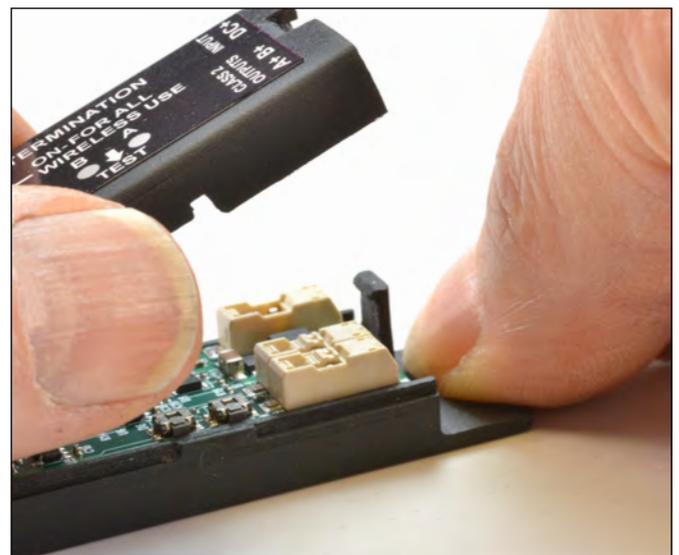
- 8-bit (5ch)
- 16-bit (10ch)
- 8-bit Tunable White Single (2ch)
- 16-bit Tunable White Single (4ch)

Configuration is performed using RDM, such as with a City Theatrical DMXcat®, or with City Theatrical's USB Configuration program for PC or Mac.

A plastic case is included with each QolorFLEX 2x2.5A Multiverse Dimmer to allow easy mounting to scenery while enabling removal of the dimmer from the case for wiring and configuration. These dimmers pair well with tunable white QolorFLEX LED Tapes for ideal use in areas where space is a concern. QolorFLEX 2x2.5A Multiverse Dimmers are designed and built in the USA by City Theatrical.

## Key Features

- Ideal for props and costumes with a low profile
- Supports ANSI E1.11 DMX512-A
- Compatible with all Multiverse and SHoW DMX transmitters
- Low profile latch connections for power, dimmer outputs, and DMX out
- Output port test buttons
- Configuration set via RDM
- Built-in short circuit, reverse polarity, and over temperature protection



# QolorFLEX 5x2.5A Multiverse Dimmer

| P/N  | Frequency | Universes |
|------|-----------|-----------|
| 5943 | 2.4GHz    | 1         |

Constant Voltage,  
Five-output, Wireless  
DMX/RDM Dimming



**QolorFLEX®**  
PROFESSIONAL LED LIGHTING



**QolorFLEX® 5x2.5A Multiverse® Dimmers are constant voltage, five-output dimmers that can be controlled wirelessly using City Theatrical's Multiverse wireless DMX/RDM technology, or legacy or SHoW DMX Neo or with wired DMX.**

Each dimmer provides 20-bit PWM resolution and extremely smooth dimming at the low end of the dimming curve, with six DMX personality options, including:

- 8-bit (5ch)
- 16-bit (10ch)
- 8-bit Tunable White Single (2ch)
- 16-bit Tunable White Single (4ch)
- 8-bit Tunable White (4ch)
- 16-bit Tunable White (8ch)

These dimmers use detachable input and output connectors to make wiring easy. Configuration is performed using RDM, such as with a City Theatrical DMXcat®, or with City Theatrical's USB Configuration program for PC/Mac.

A mounting bracket is included with each dimmer to allow easy mounting to scenery. These dimmers pair perfectly with QolorFLEX 5-in-1 LED Tape for ideal use in props and costumes, or for areas where space is a concern. QolorFLEX 5x2.5A Multiverse Dimmers are designed and built in the USA by City Theatrical.

## Key Features

- Wireless or wired DMX input
- Wired DMX output
- Mounting bracket included
- Compatible with all Multiverse and SHoW DMX Neo SHoW IDs
- DMX termination selector switch
- Per channel level indicator lights
- Per channel PWM frequency, response time, and curve selections
- Per channel bump buttons, with disable function
- Per channel offsets to balance the point at which each dimmer first turns on (important for perfect low end balance)
- DMX data loss options
- Micro USB port for firmware updates and configuration
- Class 2 outputs
- Error detection and signal light for short circuits, over current, over/under voltage, over temperature



# QolorPIX® Tape Controller, Eight Output for QolorPIX Pixel Controlled LED Tape

Plug and Play Pixel Effects Controlled by Wireless DMX



**QolorPIX®**  
PLUG AND PLAY PIXEL CONTROL

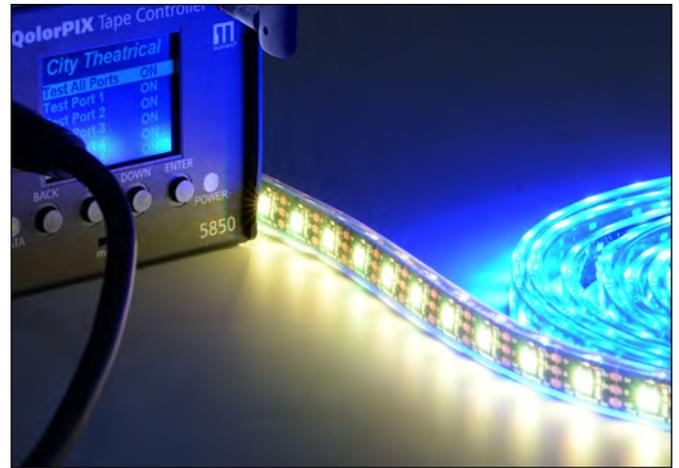
| P/N  | Frequency | Universes |
|------|-----------|-----------|
| 5850 | 2.4GHz    | 1         |



## Key Features

- Supports ANSI E1.11 DMX512-A
- Eight output ports control individual pixels on each port
- Firmware is user updateable through micro-SD card slot
- Controllable via DMX512-A, recordable presets, and test routine
- DMX512 control through effects engine, RGB, and pixel address modes

**QolorPIX Tape Controller is preconfigured with personality profiles that can be combined and adjusted to produce thousands of dynamic effects with QolorPIX Pixel Controlled LED Tape using only a few DMX channels. Any lighting effect you can imagine - chases, fades, scrolls, bursts, and more - can be created in minutes.** The QolorPIX Tape Controller offers eight ports, which accommodate a total of 40 metres of QolorPIX Pixel Controlled LED Tape. The controller features an integrated power supply, a test function and flicker finder for easy troubleshooting. The QolorPIX Tape Controller offers wireless DMX control using Multiverse technology on the 2.4GHz band.



What's in the box:



# Wireless DMX Accessories



|                                 | P/N       | NAME   | FOR PRODUCT  |
|---------------------------------|-----------|--|--|
| <b>STANDARD ANTENNAS:</b><br>   | 5729      | 2dBi Indoor Omni Antenna, 2.3"   | All SHoW Baby models   |
|                                 | 5731      | 4dBi Indoor Omni   | Legacy SHoW DMX Neo Transmitter and Receiver                               |
|                                 | 5980      | 2dBi/4dBi Omni Broadband Antenna, 900MHz*/2.4GHz, Dual Band                                | Multiverse Module, Multiverse Node, and Multiverse Transmitter             |
|                                 | 5983      | 2.5dBi/2.5dBi Omni Broadband Antenna, 900MHz*/2.4GHz, Dual Band Outdoor                    | Multiverse Vero Transceiver  |
|                                 | 5984      | 1.8dBi/3.8dBi Omni Broadband Antenna, 900MHz*/2.4GHz, Dual Band Stubby                     | Multiverse Studio Receiver   |
| <b>LONG RANGE ANTENNAS:</b><br> | 5981      | Panel, Dual Band 900MHz* - 2.4GHz (See City Theatrical website for adapter cables needed.) | Multiverse Node and Multiverse Transmitter                                 |
|                                 | 5982      | Yagi, Dual Band 900MHz* - 2.4 GHz (See City Theatrical website for adapter cables needed.) | Multiverse Node and Multiverse Transmitter                                 |
| <b>ACCESSORIES:</b><br>         | 5637      | Splitter   | All Panel and Yagi antennas  |
|                                 | 5638      | Adapter Cable  | Panel and Yagi to SHoW Baby, Multiverse Node, and Multiverse Transmitter   |
|                                 | 5639      | Gender Changer for 5637 Splitter   | Two needed for each Splitter (P/N 5637)                                    |
|                                 | 5641      | Antenna Adapter Cable, N (M) to (N) M, 36"   | Multiverse Vero Transceiver and legacy SHoW DMX Vero and Vero Net products |
| <b>POWER SUPPLIES:</b><br>      | 5627      | SHoW DMX Power Supply  | SHoW Baby, SHoW DMX Transmitter and Receiver                               |
|                                 | 5972      | Power Supply, 12V, 6W, 5.5x2.1mm, Locking  | Multiverse Node and Multiverse Transmitter                                 |
| <b>HANGING BRACKETS:</b><br>    | 5602      | SHoW DMX Mounting Plate (not shown)  | SHoW DMX Transmitter and Receiver  |
|                                 | 5780      | SHoW Baby Hanging Bracket  | All SHoW Baby models   |
|                                 | 5971      | Multiverse Node Hanging Bracket  | Multiverse Node  |
| <b>POWER CORDS:</b><br>         | 5973      | Multiverse Node USB Power Cable  | Multiverse Node  |
|                                 | 5840      | N5-15P to powerCON TRUE1, 12AWG, 8'  | Multiverse Transmitter   |
|                                 | 103-00730 | Cable, Coax U.FL(L10-iPEX) to RP-SMA Jack 5", OD1.37mm                                     | Multiverse Module and Multiverse Receiver Card                             |
| <b>CONNECTORS:</b><br>          | 5970      | Multiverse Locking Barrel Connector Lead, 6"   | Multiverse Node  |

\*The 900MHz band is licensed for use in North America only.

# Multiverse Receiver / Transmitter Specifications



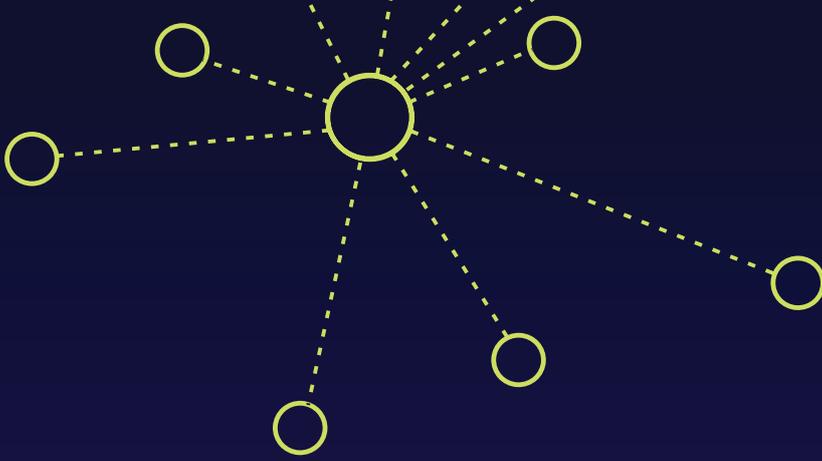
|                                  | Multiverse Receiver Card                         | Multiverse SHoW Baby                             | Multiverse Node  |
|----------------------------------|--|--|--|
| <b>Part Number</b>               | 5906 (2.4GHz)                                    | 5900 (2.4GHz)                                    | 5903 (2.4GHz)  |
| <b>Applications</b>              | Indoor   | Indoor   | Indoor   |
| <b>Broadcast Power</b>           | 2.5mW, 8mW, 25mW, 80mW                           | 2.5mW, 8mW, 25mW, 80mW                           | 3.2mW, 10mW, 32mW, 100mW (EIRP)  |
| <b>Antenna(s)</b>                | External U.fl connector or Internal              | 2dBi omni  | 3dBi   |
| <b>User Interface</b>            | DMXcat app or USB Configurator                   | One Button / Indicator Lights                    | Four Button / Backlit LED Display  |
| <b>Broadcast Modes</b>           | Adaptive, Full, Low, Mid, High, Max              | Adaptive, Full, Low, Mid, High, Max              | Adaptive, Full, Low, Mid, High, Max  |
| <b>Ethernet Protocols</b>        | N/A  | N/A  | Auto Dynamic   |
| <b>Hopping Patterns</b>          | 10   | 10   | N/A  |
| <b>Show IDs</b>                  | 217  | 217  | Multiverse:147, Neo: 70  |
| <b>Latency</b>                   | 4ms average                                      | 4ms average                                      | 4ms average  |
| <b>RF Sensitivity</b>            | -95dBm   | -95dBm   | -95dBm   |
| <b>RDM Features</b>              | RDM Proxy, RDM Responder                         | RDM Proxy, RDM Responder                         | RDM Proxy, RDM Responder   |
| <b>Compliance</b>                | Pre compliance reports available for integrators | FCC, IC, CE, ARIB, RoHS                          | FCC, IC, CE, ACMA, ARIB, RoHS  |
| <b>Power Input</b>               | 5-30VDC, 0.44W                                   | 7.5-30VDC, 1W                                    | 5-30VDC, 1W  |
| <b>Power Connector</b>           | 20-Pin 2x10 0.100-inch header, male              | 5.5mm x 2.1mm, centre positive, 9mm mating depth | 5.5 x 2.1mm locking<br><b>Note:</b> Mating connector is 5.5 x 2.1mm x 12.1mm, centre positive Switchcraft 767K |
| <b>IP Rating</b>                 | N/A  | IP50   | IP30   |
| <b>Construction</b>              | PCB Assembly                                     | Injection Molded Plastic                         | Die Cast Aluminium   |
| <b>Dimensions</b><br>(L x W x H) | 2.0" x 1.5" x 0.25"<br>(50 x 38 x 6.4mm)         | 3.625" x 3.0" x 1.8"<br>(92 x 76 x 46mm)         | 4.05" x 2.36" x 1.44"<br>(102.8 x 60 x 36.47mm)  |

Multiverse technology is covered by U.S. Patents #7,432,803 B2, #10,129,964 B1, and other patents pending.

See product manuals for complete specifications. Specifications may be subject to change.



|                               | <b>Multiverse Vero Transceiver</b>                   | <b>Multiverse Studio Receiver</b>  | <b>Multiverse Transmitter</b>                  |
|-------------------------------|--|--|--|
| <b>Part Number</b>            | 7400-5903 (2.4GHz)                                   | 5905 (2.4GHz)  | 5911 (2.4GHz (x2))                             |
| <b>Applications</b>           | Outdoor  | Indoor, Outdoor (Splashproof)  | Indoor   |
| <b>Broadcast Power</b>        | 3.2mW, 10mW, 32mW, 100mW EIRP                        | 3.2mW, 10mW, 32mW, 100mW EIRP  | 3.2mW, 10mW, 32mW, 100mW (EIRP)                |
| <b>Antenna(s)</b>             | Dual band 900MHz / 2.4GHz<br>2.5dBi / 2.5dBi Outdoor | Dual band 900MHz / 2.4GHz<br>1.8dBi / 3.8dBi Stubby                            | 3dBi   |
| <b>User Interface</b>         | Internal Backlit LCD display                         | 4 Button / Backlit LED Display   | DMXcat app                                     |
| <b>Broadcast Modes</b>        | Adaptive, Full, Low, Mid, High, Max                  | Adaptive, Full, Low, Mid, High, Max  | Adaptive, Full, Low, Mid, High, Max            |
| <b>Ethernet Protocols</b>     | N/A  | N/A  | Auto Dynamic                                   |
| <b>Hopping Patterns</b>       | 10   | 10   | 802.11 bgn, 100BASE-T sACN, Art-Net            |
| <b>Show IDs</b>               | 217  | 217  | Multiverse: 147                                |
| <b>Latency</b>                | 4ms average  | 4ms average  | 4ms average                                    |
| <b>RF Sensitivity</b>         | -95dBm   | -95dBm   | -95dBm   |
| <b>RDM Features</b>           | RDM Proxy, RDM Responder                             | RDM Proxy, RDM Responder   | RDM Proxy, RDM Responder                       |
| <b>Compliance</b>             | FCC, IC, CE, UKCA, ARIB, cETLus Listed, RoHS         | FCC, IC, CE, UKCA, ARIB, RoHS  | FCC, IC, CE, ETL, RCM, MIC                     |
| <b>Power Input</b>            | 90-277VAC input, 1A max                              | Internal battery; included external power supply 100-240VAC input, 5VDC output | 100-240VAC 50/60Hz, 5-30VDC, POE Class 0, 2W   |
| <b>Power Connector</b>        | 3 pin screw terminals                                | USB-C connector  | 5.5 x 2.1mm, powerCON TRUE1 in/ thru, RJ-45    |
| <b>IP Rating</b>              | IP66   | IP61   | IP30   |
| <b>Construction</b>           | NEMA 4 / IP66 Aluminium enclosure                    | ABS Plastic  | Die Cast Aluminium                             |
| <b>Dimensions (L x W x H)</b> | 6.5" x 6.0" x 4.0"<br>(165 x 152 x 102mm)            | 5.5" x 1.812" x 1.0"<br>(139.7 x 46 x 25.4mm)                                  | 7.75" x 4.0" x 1.85"<br>(196.9 x 101.5 x 47mm) |



### Antenna Adapter Selection Matrix for Europe

For City Theatrical Wireless DMX Products

|                      | Standard Antennas:         |                         |                         |                                  | Long Range Antennas: |               | Accessories:                              | Legacy Antennas:              |                                |
|----------------------|----------------------------|-------------------------|-------------------------|----------------------------------|----------------------|---------------|---|-------------------------------|--------------------------------|
| <b>P/N:</b>          | 5729                       | 5980                    | 5983                    | 5984                             | 5981                 | 5982          | 5637                                      | 5731                          | 5732                           |
| <b>Gain (dBi):</b>   | 2dBi                       | 2dBi/4dBi               | 2.5dBi/2.5dBi           | 1.8dBi/3.8dBi                    | 6.8dBi/8.5dBi        | 11dBi         | Antenna Splitter, 3 N-Connectors (Female) | 4dBi                          | 4.5dBi                         |
| <b>Frequency:</b>    | 2.4GHz                     | 900MHz/2.4GHz           | 900MHz/2.4GHz           | 900MHz/2.4GHz                    | 900MHz/2.4GHz        | 900MHz/2.4GHz |   | 2.4GHz                        | 2.4GHz                         |
| <b>Product Name:</b> | Antenna, Indoor Omni, 2.3" | Antenna, Omni Broadband | Antenna, Omni Broadband | Antenna, Omni Broadband "Stubby" | Antenna, Panel       | Antenna, Yagi |   | Antenna, Indoor Omni (Legacy) | Antenna, Outdoor Omni (Legacy) |
|                      |                            |                         |                         |                                  |                      |               |   |                               |                                |

#### Multiverse Wireless DMX/RDM Products on the 2.4GHz band:

|  |                              |   |                              |                              |   |  |  |  |
|--|------------------------------|---|------------------------------|------------------------------|---|--|--|--|
| 5900 Multiverse® SHoW Baby                               | Standard; no adapter needed. |   |                              |                              |   |  |  |  |
| 5903 Multiverse Node 2.4GHz                              |                              |   |                              |                              |   |  |  |  |
| 5911 Multiverse Transmitter 2.4GHz                       |                              | Standard; no adapter needed.                        |                              |                              |   |  |  |  |
| 5905 Multiverse Studio Receiver 2.4GHz                   |                              |   |                              | Standard; no adapter needed. |   |  |  |  |
| 5906 Multiverse Receiver Card 2.4GHz w/ Internal Antenna | Requires the 103-00730 Cable | Requires the 103-00730 Cable and 5638 Adapter Cable | Requires the 103-00730 Cable |                              | Requires the 103-00730 Cable and 5638 Adapter Cable | Requires the 103-00730 Cable, and 5641 Antenna Adapter Cable |  |  |
| 7400-5903 Multiverse Vero Transceiver 2.4GHz             |                              |   | Standard; no adapter needed. |                              | Requires 5641 Adaptor Cable N-Male to N-Male        | Requires three 5641 Adaptor Cables, N-Male to N-Male         |  |  |

#### Legacy Wireless DMX Products:

|  |                              |  |  |  |   |  |  |                              |
|--|------------------------------|--|--|--|---|--|--|------------------------------|
| 5702M SHoW DMX SHoW Baby@6 (Legacy)    | Standard; no adapter needed. |  |  |  |   |  |  |                              |
| 5701 SHoW DMX Neo Transmitter (Legacy) |                              |  |  |  | Requires 5638 Adapter Cable RSMa-Male to N-Male | Requires two 5641 Adaptor Cables, N-Male to N-Male, and one 5638 Adapter Cable RSMa-Male to N-Male |  | Standard; no adapter needed. |
| 5711 SHoW DMX Neo Receiver (Legacy)    |                              |  |  |  |   |  |  |                              |
| 7400-5707 SHoW DMX Vero® (Legacy)      |                              |  |  |  | Requires 5641 Adaptor Cable N-Male to N-Male    | Requires three 5641 Adaptor Cables N-Male to N-Male  |  | Standard; no adapter needed. |
| 7400-5708 SHoW DMX Vero Net (Legacy)   |                              |  |  |  |   |  |  |                              |

#### Instructions:

1. Select a device from the left column.
2. The row for that device will indicate which adapters are necessary to use each antenna/adaptor listed in the top row.
3. If the cell is gray, that antenna will not work with your selected device.

#### Reference:



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