

Revolutionary Wireless DMX/RDM



CITY
THEATRICAL
NEW YORK • LONDON



Multiverse: Expanding the World of Wireless DMX

After 16 years of pioneering wireless DMX and RDM for entertainment and architectural lighting, City Theatrical is presenting its new Multiverse® wireless DMX system broadcasting as many as 10 universes of DMX 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.

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. Our Multiverse Gateway will offer breakthrough data distribution capacity with up to 10 wireless plus eight additional wired 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.

2.4GHz & 900MHz Operation

2.4GHz operation is usable worldwide, and for the first time, Multiverse users in North America can use a combination of 2.4GHz and 900MHz frequencies. (Note: 900 MHz is not licensed for use outside of North America.)

Backwards Compatibility

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

**More Data Using Less
Radio Energy**



Multiverse Module

Part Numbers: 5990, 5991, 5994, 5995

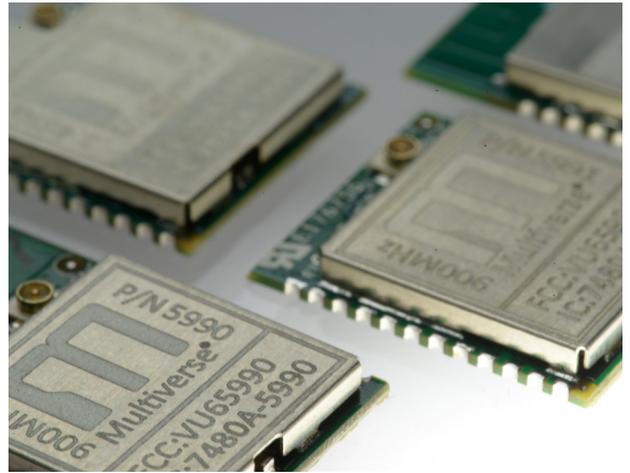
Why couldn't all DMX data be sent wirelessly before Multiverse?

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.

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 three years of research, development, and complex engineering, our team of experts has achieved our goal and is proud to offer Multiverse - a visionary breakthrough in technology that delivers much more DMX data while producing less radio energy.



Designed 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, the Multiverse Module marks the first time that the implementation of a wireless DMX chip in every DMX device is possible.

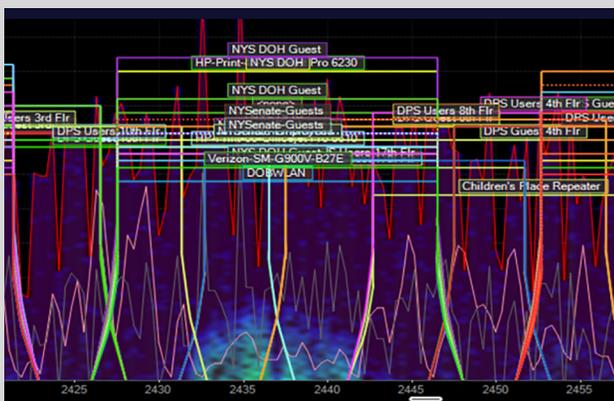
The Multiverse Module is available in two frequency ranges, 900MHz (for use in North America) and 2.4GHz (for use worldwide). Each frequency version can include a PCB trace antenna or not. All versions have a U.FL connector to connect to an external antenna.

OEM Implementation

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.

A sample real-life crowded radio spectrum.



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 the 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 new 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 & 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
- 5 to 30VDC power input
- Molded plastic enclosure



Transmitter set to SHoW ID 117



Receiver set to same SHoW ID

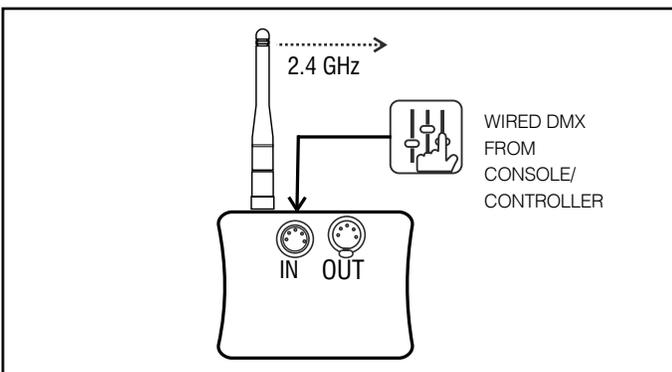


Set SHoW IDs on back of unit

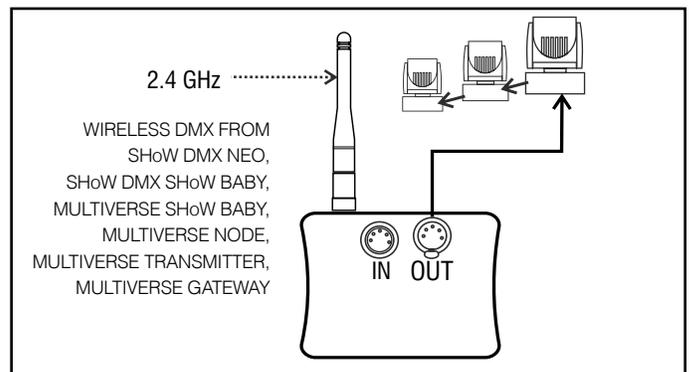
What's in the box:



Tx SCHEMATIC



Rx SCHEMATIC



Multiverse Node

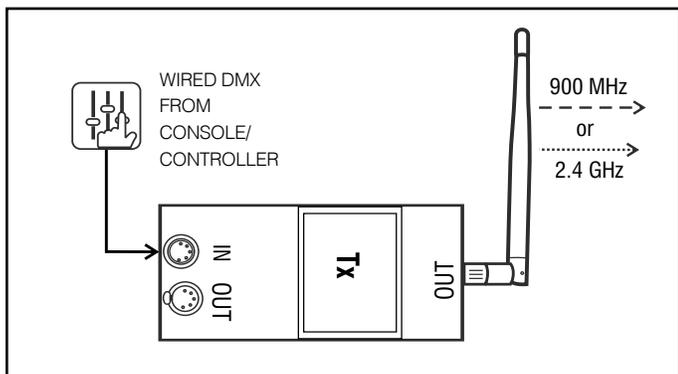
P/N	Frequency
5902	900MHz/2.4GHz
5903	2.4GHz



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.



Tx SCHEMATIC



Single Universe Plug and Play Simplicity

Key Features

- Built-in 2.4GHz (for worldwide use) and 900MHz (for use in North America only) radios allow 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
- A single dual band antenna
- XLR input and output
- 5 to 30VDC power input via locking barrel connector



Pipe Mount



Simple onboard setup

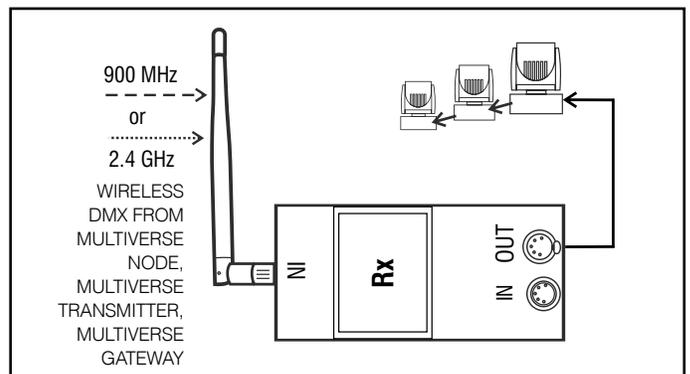


Back of unit

What's in the box:



Rx SCHEMATIC



Multiverse Transmitter

P/N	Frequency	Universes
5910	900MHz/2.4GHz	9
5911	2.4GHz (x2)	10
5912	900MHz (x2)	8



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 for Multiverse wireless DMX/RDM output: 900MHz and 2.4GHz (for P/N 5910), 2.4GHz and 2.4GHz (for P/N 5911), and 900MHz and 900MHz (for P/N 5912)
- 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

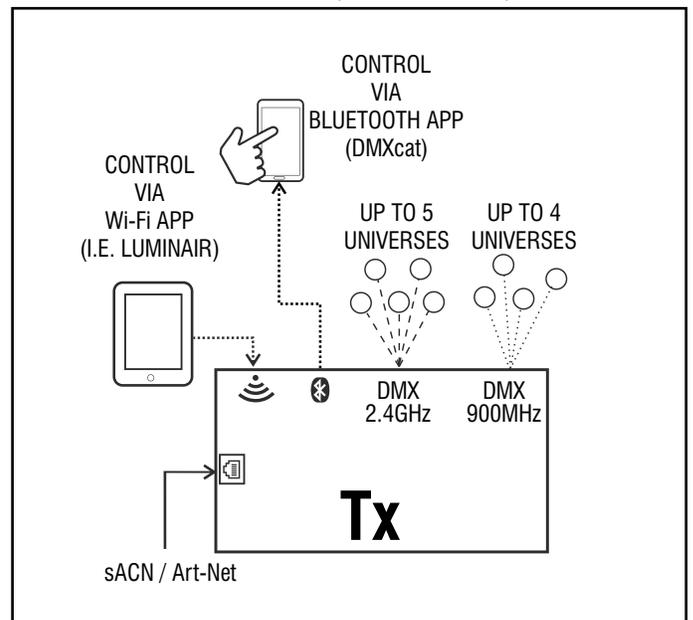


Pipe Mount



Pipe Mount

SCHEMATIC (FOR P/N 5910)



Multiverse Gateway

P/N	Frequency	Universes
5920	900MHz/2.4GHz	9
5921	2.4GHz (x2)	10
5922	900MHz (x2)	8



The Multiverse® Gateway is a transceiver, and allows the fullest use of the Multiverse system. Like the Multiverse Transmitter, the Multiverse Gateway utilizes four radios (Bluetooth and Wi-Fi for inputs, 900MHz and 2.4GHz for wireless DMX/RDM output), and accepts Streaming ACN or Art-Net input.

The user can choose which of the between eight and 10 universes they would like to broadcast wirelessly, depending on the type of Multiverse Gateway product used, and can choose another eight universes to output locally as wired DMX/RDM.

Receivers on the Multiverse Gateway system can either be individual Multiverse Nodes for single wired DMX/RDM output, or additional Multiverse Gateways. When used as receivers, the Multiverse Gateways can output any of the wireless DMX universes received on any of the eight wired DMX outputs, as well as passing along up to 10 universes on the Streaming ACN or Art-Net output.

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

What's in the box:



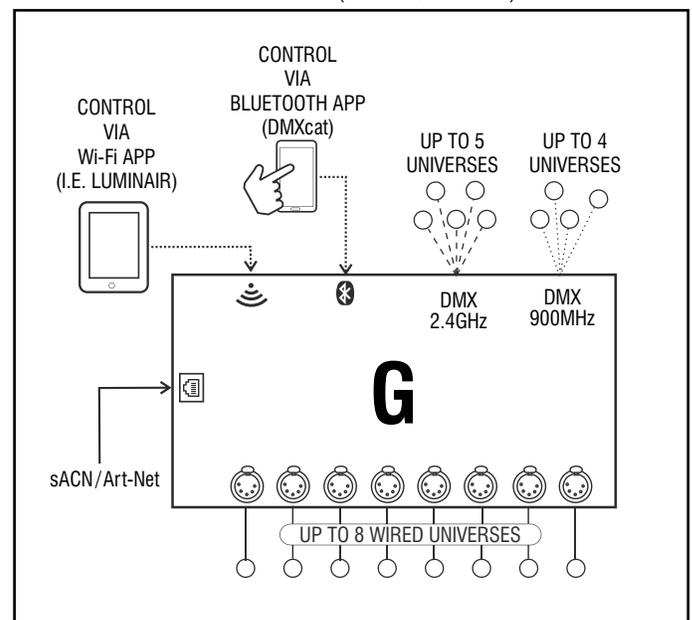
Works With Up To Eight Wired Plus Ten Wireless Universes

Key Features

- Four radios: Bluetooth and Wi-Fi for inputs, 900MHz and 2.4GHz for 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



SCHEMATIC (FOR P/N 5920)



Specifications



	Multiverse SHoW Baby	Multiverse Node	Multiverse Transmitter	Multiverse Gateway
Part Number	5900	5902 (900MHz/2.4GHz), 5903 (2.4GHz)	5910 (900MHz/2.4GHz), 5911 (2.4GHz (x2)), 5912 (900MHz (x2))	5920 (900MHz/2.4GHz), 5921 (2.4GHz (x2)), 5922 (900MHz (x2))
Applications	Indoor	Indoor	Indoor	Indoor
Broadcast Power	2.5mW, 8mW, 25mW, 80mW	3.2mW, 10mW, 32mW, 100mW	3.2mW, 10mW, 32mW, 100mW	3.2mW, 10mW, 32mW, 100mW
Antenna(s)	2dBi omni	Omni broadband, 900MHz/2.4GHz, 2dBi/4dBi	Omni broadband, 900MHz/2.4GHz, 2dBi/4dBi	Omni broadband, 900MHz/2.4GHz, 2dBi/4dBi
User Interface	One Button / Indicator Lights	4 Button / Backlit LED Display	DMXcat app	DMXcat app
Broadcast Modes	Adaptive, Full, Low, Mid, High, Max	Adaptive, Full, Low, Mid, High, Max	Adaptive, Full, Low, Mid, High, Max	Adaptive, Full, Low, Mid, High, Max
DMX Burst Modes	Auto Dynamic	Auto Dynamic	Auto Dynamic	Auto Dynamic
Ethernet Protocols	N/A	N/A	802.11 bgn, 10BASE-T sACN, Art-Net	802.11 bgn, 10BASE-T sACN, Art-Net
Hopping Patterns	3	17	17	17
Show IDs	217	307 (P/N 5902); 217 (P/N 5903)	237 (P/N 5910); 147 (P/N 5911); 90 (P/N 5912)	237 (P/N 5920); 147 (P/N 5921); 90 (P/N 5922)
Latency	4ms	4ms	4ms	4ms
RF Sensitivity	-95dBm	-95dBm	-95dBm	-95dBm
RDM Features	RDM Proxy, RDM Responder	RDM Proxy, RDM Responder	RDM Proxy, RDM Responder	RDM Proxy, RDM Responder
Compliance	FCC, IC, CE	FCC, IC, CE	FCC, IC, CE, ETL	FCC, IC, CE, ETL
Power	5-30VDC, 1W	5-30VDC, 1W	100-240VAC 50/60Hz, 5-30VDC, POE Class 0, 5W	100-240VAC 50/60Hz, 5-30VDC, POE Class 0, 5W
Power Connector	5.5mm x 2.1mm, center positive, 9mm mating depth	Locking DC Jack, 5.5mm x 2.1mm, center positive, 12.1mm mating depth	Locking DC Jack, 5.5mm x 2.1mm, center positive, 12.1mm mating depth; powerCON TRUE1 in/thru; EtherCON	5.5mm x 2.1mm, center positive, 12.1mm mating depth; powerCON TRUE1 in/thru; EtherCON
IP Rating	IP50	IP50	IP50	IP50
Construction	Injection Molded Plastic	Die Cast Aluminum	Die Cast Aluminum	Die Cast Aluminum
Dimensions (L x W x H)	3.625" x 3.0" x 1.8" (92 x 76 x 46mm)	4.05" x 2.36" x 1.44" (102.8 x 60 x 36.47mm)	7.75" x 4.0" x 1.85" (196.9 x 101.5 x 47mm)	12.5" x 8.5" x 2.31" (317.5 x 215.9 x 58.7mm)

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

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