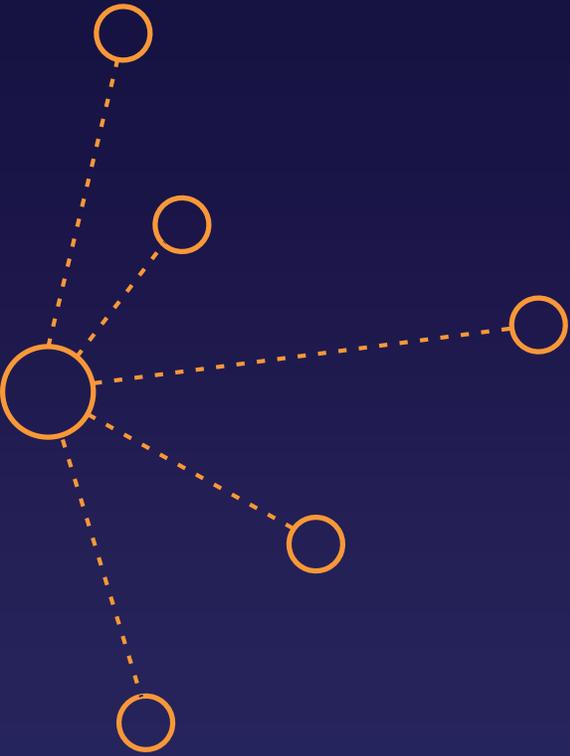
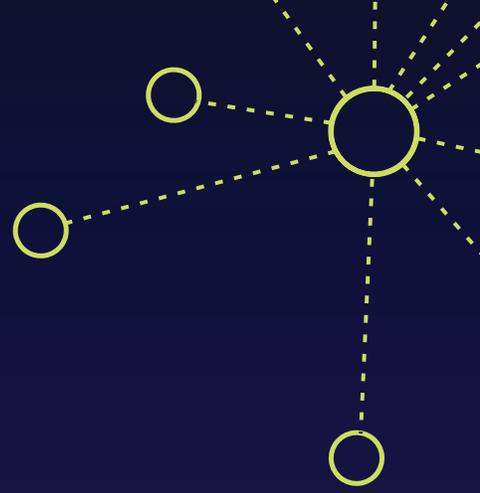


Revolutionary Wireless DMX/RDM



CITY
THEATRICAL
NEW YORK • LONDON

Made in USA



Multiverse: Expanding the World of Wireless DMX

After 17 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 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® 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: 900MHz is not licensed for use outside of North America.)

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 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®.

RadioScan™ Spectrum Analyzer

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 SHoW IDs.

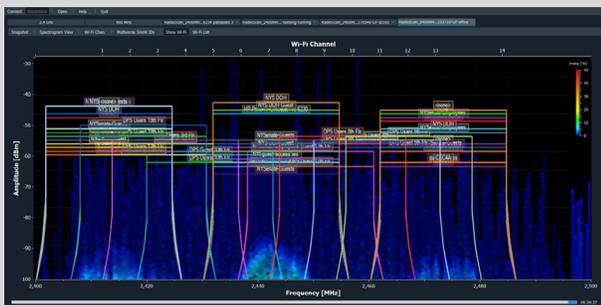


*Product details in QolorFLEX Brochure or City Theatrical website.

More Data Using Less Radio Energy

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.

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

Multiverse wireless DMX/RDM systems can broadcast up to ten universes of DMX data while using less radio energy than other single universe wireless DMX transmitters.



Simultaneous Dual Band Operation

Broadcast on the 2.4GHz band and the 900MHz band (licensed for use in North America only) at the same time.



mDMX

mDMX is a form of DMX optimized 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 Analyzer 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 authorized users.



Low Cost Technology

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

Multiverse Module*

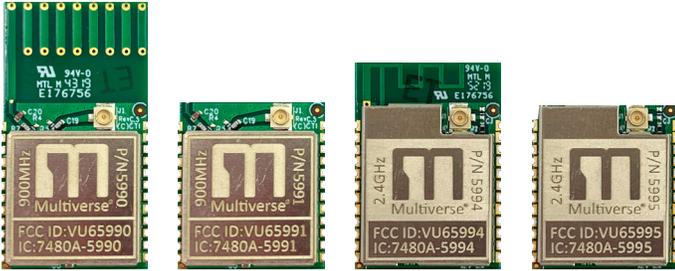
P/N	Frequency
5990	900MHz
5991	900MHz
5994	2.4GHz
5995	2.4GHz

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, 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 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.

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



Shown at actual size.

Multiverse Receiver Card*

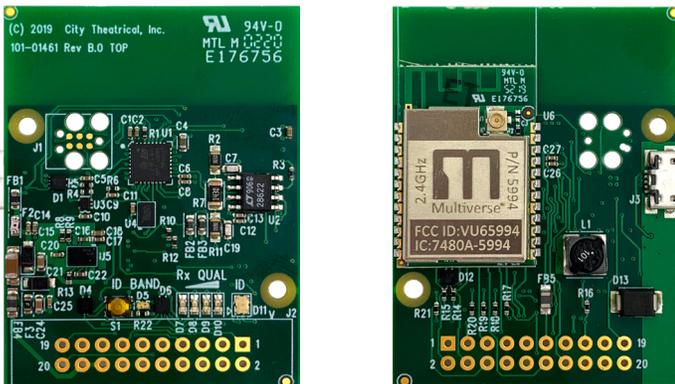
P/N	Frequency
5906	2.4GHz
5907	900MHz

Implement Wireless DMX/RDM Into Lighting Equipment In A Simple Way

Key Features

- Supports ANSI E1.11 DMX512-A and E1.20 RDM
- DMX RS-485 driver on board with $\pm 60V$ 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

Shown at actual size.



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.



*Not sure if you need the Multiverse Module or Multiverse Receiver Card?

See our decision making tool at:
<https://www.citytheatrical.com/docs/default-source/pdfs/multiverse-module-or-receiver-card>

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

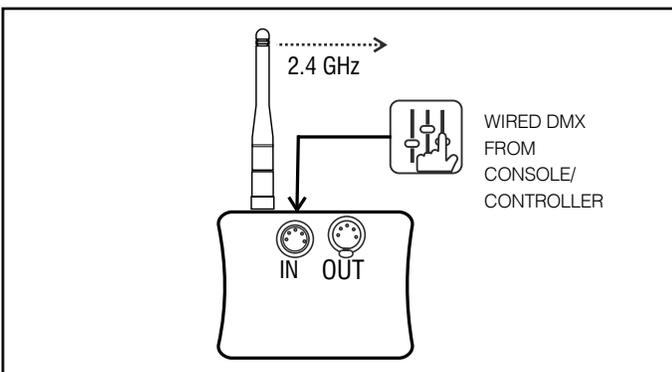


Set SHoW IDs on back of unit

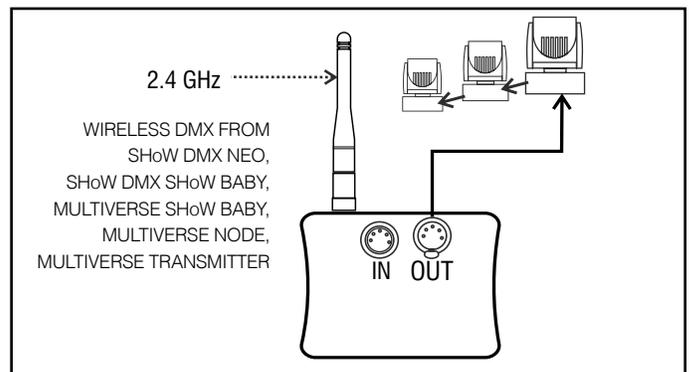
What's in the box:



Tx SCHEMATIC



Rx SCHEMATIC



Multiverse Node

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

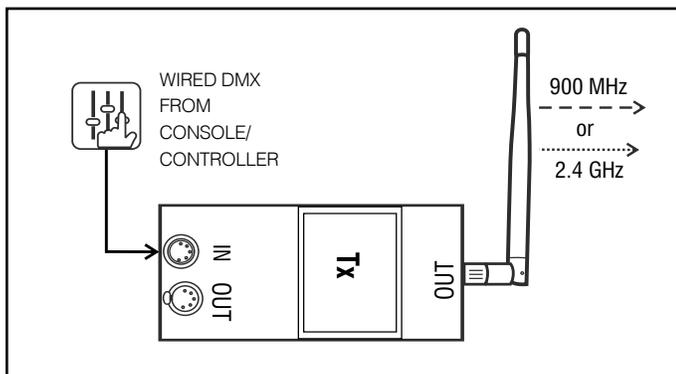


The Multiverse® Node is the first building block of the Multiverse system.

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
- 5 Pin XLR DMX input and output
- 5 to 30VDC power input via locking barrel connector



Pipe Mount



Simple onboard setup

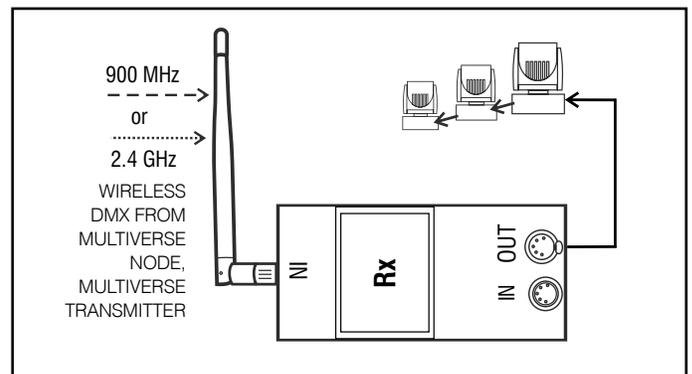


Back of unit

What's in the box:



Rx SCHEMATIC



Multiverse Vero Transceiver

P/N	Frequency
7400-5902	900MHz/2.4GHz
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 7400-5902 Multiverse Vero Transceiver 900MHz/2.4GHz contains two radios, 2.4GHz (for worldwide use) and 900MHz (for use in the Americas only), which allow 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 dual band 2.5dBi outdoor omni-directional Antenna.



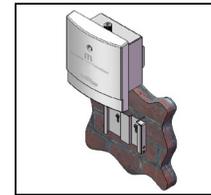
Outdoor-Rated Wireless DMX/RDM

Key Features

- Built-in Multiverse 2.4GHz (for worldwide use) and 900MHz (for use in the Americas only) 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 aluminum enclosure
- Antenna: Omni Broadband, 900MHz/2.4GHz, 2.5dBi/2.5dBi



Wall Mount



Pipe Mount



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

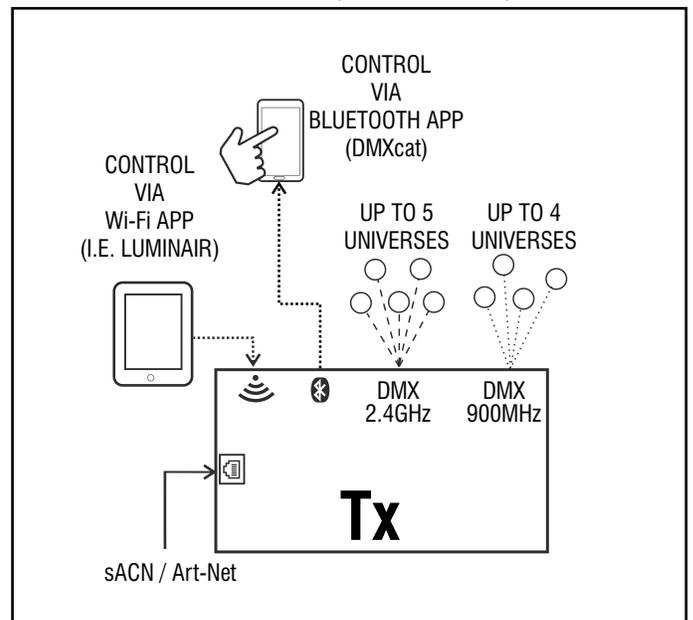


Pipe Mount



Pipe Mount

SCHEMATIC (FOR P/N 5910)



Specifications



	Multiverse Receiver Card	Multiverse SHoW Baby	Multiverse Node	Multiverse Transmitter
Part Number	5906 (2.4GHz), 5907 (900MHz*)	5900 (2.4GHz)	5902 (900MHz*/2.4GHz), 5903 (2.4GHz)	5910 (900MHz*/2.4GHz), 5911 (2.4GHz (x2)), 5912 (900MHz* (x2))
Applications	Indoor	Indoor	Indoor	Indoor
Broadcast Power	2.5mW, 8mW, 25mW, 80mW	2.5mW, 8mW, 25mW, 80mW	3.2mW, 10mW, 32mW, 100mW	3.2mW, 10mW, 32mW, 100mW
Antenna(s)	External U.fl connector or Internal	2dBi omni	Omni broadband, 900MHz/2.4GHz, 2dBi/4dBi	Omni broadband, 900MHz/2.4GHz, 2dBi/4dBi
User Interface	DMXcat app or USB Configurator	One Button / Indicator Lights	4 Button / Backlit LED Display	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
Ethernet Protocols	N/A	N/A	N/A	802.11 bgn, 100 BASE-T sACN, Art-Net
Hopping Patterns	10	10	10	10
Show IDs	217 (P/N 5906); 90 (P/N 5907)	217	307 (P/N 5902); 217 (P/N 5903)	237 (P/N 5910); 147 (P/N 5911); 90 (P/N 5912)
Latency	4ms average	4ms average	4ms average	4ms average
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	Pre compliance reports available for integrators	FCC, IC, CE, ARIB, RoHS	5902: FCC, IC 5903: FCC, IC, CE, ACMA, ARIB, RoHS	5910/5912: FCC, IC, ETL 5911: FCC, IC, CE, ACMA, ARIB, cETLus Listed, RoHS
Power	5-30VDC, 0.44W	5-30VDC, 1W	5-30VDC, 1W	100-240VAC 50/60Hz, 5-30VDC, POE Class 0, 5W
Power Connector	20-Pin 2x10 0.100-inch header, male	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
IP Rating	N/A	IP50	IP50	IP50
Construction	PCB Assembly	Injection Molded Plastic	Die Cast Aluminum	Die Cast Aluminum
Dimensions (L x W x H)	2.0" x 1.5" x 0.25" (50 x 38 x 6.4mm)	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)

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



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.

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