

# Prime Connection

4Q 2020



**PRIMUS**



**PRIMUS**

*The Difference in Wireless Distribution*

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support@primuselectronics.com

**Office Hours**  
Monday - Friday  
7 am - 6 pm

**Pickup Hours**  
Monday - Friday  
7 am - 8 pm

**Connect with us**  


Proudly serving our customers since 1980.  
Privately held and proud of it.  
President – Michael A. Johnson



## Trade Shows & Training

### 2020 TRADE SHOWS

Due to the Covid-19 Virus we are postponing attending tradeshow until 2021.  
Thank you for your ongoing support.

NATE 2021 / February 15-18 / Memphis, TN / Booth #210  
ENTELEC 2021 / May 25-27 / Houston, TX / Booth #420  
IWCE 2021 / / Las Vegas, NV / Booth #2765

### TRAINING

Anritsu SiteMaster™ Certified Line Sweep Training 2-Day Course, \$1,395 pp  
Anritsu PIM Master™ Certified PIM Training 1-Day Course, \$1,295 pp  
CITCA Authorized Climber  
CITCA Tower Rescue & Competent Climber  
CITCA Train-the-Trainer  
CommScope, ComStar, ODM Fiber, EXFO, Harger, Bird Technologies, JMA, and Kaelus Trainings  
available upon request.  
Visit [primuselectronics.com](https://www.primuselectronics.com) or contact Training with Primus at (800) 435-1636 or  
[training@primuselectronics.com](mailto:training@primuselectronics.com) for more information and registration.

# PRIMUS

## Primus remains open for business!

Our sales and customer service teams are here to process and/or expedite your orders. The staff operating Primus distribution centers in all locations remains fully operational while isolating according to the CDC’s guidance. Our website - [www.primuselectronics.com](https://www.primuselectronics.com) - is fully functional accepting quotes, new accounts, and providing information on solutions at Primus.

- We have enabled all employees who are capable to work from home wherever possible.
- We have initiated proactive isolation measures for those on location.
- We have eliminated all travel until conditions warrant other wise.
- We have eliminated non-essential visits to our locations.

Everyone at Primus hopes that your friends and families are staying safe and healthy during these trying times and hope to fulfill all of your product needs.

Please contact Primus at 800-435-1636 or at [support@primuselectronics.com](mailto:support@primuselectronics.com) with any questions.





# ICT

## THE POWER OF RELIABILITY

### DC POWER DISTRIBUTION FOR WIRELESS COMMUNICATIONS

Intelligent Monitoring and Load Control Over Ethernet Helps Increase Uptime and Reduce Unnecessary Site Visits

Whether your need is for unmanaged, fully managed, single or dual bus, 12, 24 or 48 volts DC, positive or negative ground, ICT provides the most extensive range of intelligent solutions for distributing DC power to your critical loads. Increase your uptime, reduce site visits to power cycle a locked-up load, and reduce your operating costs. Designed and manufactured in North America.

#### SINGLE BUS



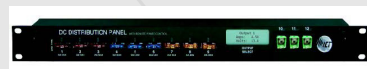
##### ICT180S-12IRC

- 12 and 24VDC systems
- 180A system current rating
- 9 x 25A ATO fused outputs
- 3 x 40A J-Case fused outputs
- Remote current monitoring of each load over Ethernet
- Remote power control of each load over Ethernet
- Email alarms
- Automatic load shedding
- Network watchdog (ping)
- 5 x digital site monitoring sensor inputs



##### ICT180S-12BRC/BRCP

- POS or NEG 48VDC systems
- 180A system current rating
- 12 x 15A GMT fused outputs



##### ICT180S-12

- 12 and 24 VDC systems
- 180A system current rating
- 9 x 25A ATO fused outputs
- 3 x 40A J-Case fused outputs
- Form C alarm contacts



##### ICT240-8IRC

- Front access to all functions and connections
- 12, 24 and 48VDC systems
- Mix voltages and polarities in a single panel
- 240A system current rating
- 4 x 25A hydraulic/magnetic

- breaker outputs per A/B bus
- Remote monitoring of each load over Ethernet
- Remote power control of each load over Ethernet
- Email Alarms
- Automatic load shedding
- Network watchdog (ping)
- 5 x digital site monitoring sensor inputs

#### DOUBLE BUS



##### ICT200DB-12IRC

- 12, 24 and 48VDC systems
- Mix voltages and polarities in a single panel
- 6 x 25A hydraulic/magnetic breaker outputs per A/B bus
- 200A system current rating
- Remote monitoring of each load over Ethernet
- Remote power control of each load over Ethernet
- Email Alarms
- Automatic load shedding
- Network watchdog (ping)
- 5 x digital site monitoring sensor inputs
- Also available as ICT200DB-12 unmanaged version



##### ICT200DF-12IRC

- 12, 24 and 48VDC systems
- Mix voltages and polarities in a single panel
- 6 x 25A outputs per A/B bus
- 80VDC rated fused outputs
- Also available as ICT200DF-12 unmanaged version

- Contributed by Sharon McDonald

ICT high efficiency 1RU DC Power Supplies provide reliable, high efficiency DC power for a range of demanding applications and requirements in the Land Mobile Radio, fixed wireless broadband, small cell, DAS, and industrial power markets.

#### MODULAR POWER SERIES & MPS ULTRA

##### Intelligent Control Module

Optional factory installed controller provides TCP/IP based monitoring and control of power shelf and installed modules. Remote alarms, HTML and SNMP support, adjustable voltage and output current levels. 4 site monitoring inputs. Advanced battery management features including temperature adjusted charging, discharge testing, state of charge and estimated run-time remaining.

##### Power Modules

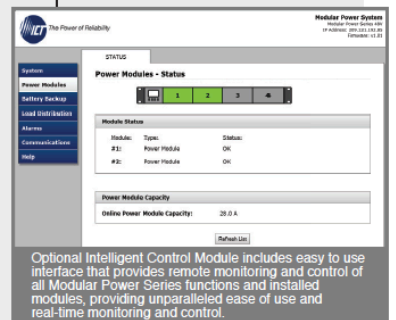
700 watt hot swappable power modules, 12, 24 or 48VDC output, 90-93% efficiency, Power Factor Correction with no derating at 115 or 230VAC input. Maximum system output 2,800 watts with 4 modules, or 2,100 watts with N+1 redundancy. The MPS Ultra factory pre-configured system provides output power up to 5,600 watts.

##### Load Distribution Module

Optional four position 20A circuit breaker protected load outputs with remote monitoring and power control over Ethernet. Up to 12 outputs available on MPS Ultra.

##### Battery Management Module

Optional single or dual 100A battery breakers with 150A low voltage disconnect (standard on some MPS Ultra models).



#### PLATINUM SERIES

##### 1RU DC Power Supply with Digital Control

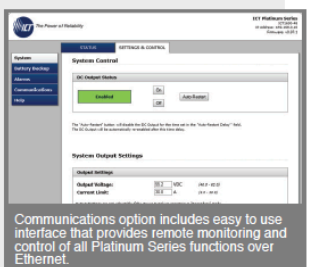
90-93% efficiency, 800 or 1600 watt power output, 12, 24 or 48VDC output. Universal PFC AC input.

##### Intelligent Power Control

Digital display, user adjustable output voltage and charge current. Standard TCP/IP Ethernet provides remote monitoring, email alarms, and power cycling of DC outputs.

##### Battery Backup

Optional battery charging terminal with Low Voltage Disconnect, adjustable battery charge current limit, battery management features including run time remaining, discharge testing.



#### PRO SERIES

##### High Efficiency 1RU DC Power Supply

90-93% efficiency, 690 or 1350 watt power output, 12, 24 or 48VDC output. Universal PFC AC input.

##### Battery Backup

Optional battery charging terminal with automatic revert and integrated low voltage disconnect.





# E/M WAVE INC.

## LS No Spring Antennas

E/M Wave Inc., an antenna design, engineering, and manufacturing firm, is pleased to announce our new line of No Spring NMO Mount Antennas, featuring operating frequency bands ranging from 108 to 520 MHz and 2 to 5 dB gain.

E/M Wave Inc. IP67 No Spring Antennas provide a cost-effective solution for mobile or fixed point applications. For stationary base repeaters, SCADA and Telemetry applications, where antenna impact risk is low or non-existent, these no spring models provide highly reliable signal radiation without sacrificing RF performance.

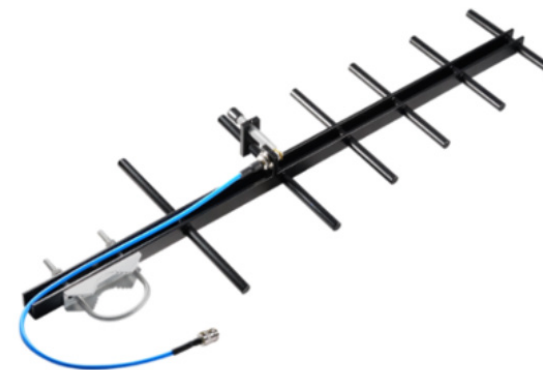
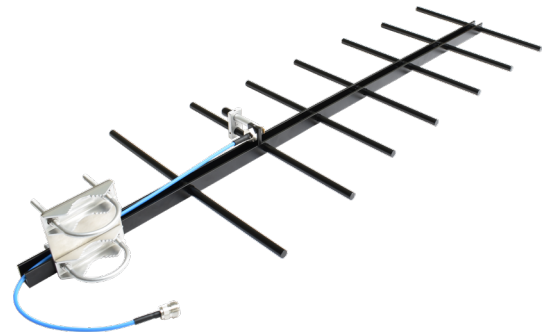
- Highly Aesthetic, Low Profile “No Spring” NMO Mount Antenna
- Premium All Black Chrome Finish
- Silicone Rubber Grip for Hand Tight Installation
- Twist-Off Whip Removal for car wash & general vehicle maintenance
- No Tools Required for Whip Installation & Removal
- Broad Band, Field Tunable
- Dual Seal NMO Provides IP67 Ingress Protection
- Durable Xenoy™ base with TPV Dust Seal and Grip Ring

## Welded Yagi Antennas

E/M Wave offers welded directional Yagi antennas. EM-B11410 operates in the 450-470 MHz band for public works and commercial/industrial applications, with 10dBi gain and 7 welded elements. EM-B11809 operates in the 760-870 MHz band for public safety, wireless backhaul, and wide-area trunking dispatch applications with 9.5dBi gain and 6 welded elements. EM-B11909 operates in the 890-960 MHz band (including 902-928 MHz ISM) for M2M, SCADA, IoT, and telemetry applications with 9.5dBi gain with 6 welded elements.

All three Yagi antennas feature rugged aluminum construction, UV and environmentally resistant black powder coat finish, 3/4” 6063 aluminum boom, and solid rod radiators of 3/8” 6061 aluminum. They can be mounted for V or H polarization. Each model includes an integrated plenum type feed cable, and all mounting hardware.

- Rugged Aluminum Construction
- UV and Environmentally Resistant Black Powder Coat Finish
- Boom: 3/4” 6063 Aluminum
- Radiators: 3/8” 6061 Aluminum, Solid Rod
- V or H Polarization Mountable
- Mounting Hardware Included
- Integrated Feed Cable, RG-141 Plenum Type



# IN STOCK NOW AT PRIMUS!

## NEWMAR - NFPA Compliant Battery Back-Up Power

- AMERICAN MADE
- Light weight
- Can be set up and installed by one tech
- IN STOCK AT PRIMUS

## Certified to UL Standard 2524 & 924 Public Safety/BDA In-Building Coverage

An integral part of an in-building solution for emergency response radio coverage is the backup power system. NFPA codes relating to the autonomous operation and monitoring of the BDA power is quite stringent. These backup power enclosures were engineered to meet every aspect of NFPA 1221 and provide integrators configuration flexibility and rapid delivery directly to site, batteries included.

### Features

- Certified to UL 2524 & 924
- NFPA compliant
- All required monitoring alarms
- Batteries included
- Choose capacity to match system requirements
- NEMA-4 enclosure
- Prewired with waterproof feed-thru's for easy on-site connections

### Specifications

Input: 115/230 VAC (factory wired for 120V AC)

Outputs:

DC: 12, 24 and 48V, with 120, 240 and 480 Watt DC UPS

AC: 110V at 96 watts - see reverse for detailed specifications

Protections: Battery breaker, AC input breaker, NEMA enclosure, liquid tight cord grips

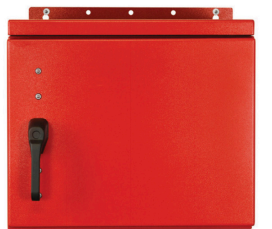


Enclosure A  
12, 24, & 48V DC, 18 - 100AH



Certified to  
UL Standards  
2524 & 924

WE HAVE BOTH  
100AH AND  
55AH VERSIONS  
AVAILABLE!



Enclosure B  
48V, 100AH

NFPA 1221 Compliant Alarms (Form C, Dry Contact)

- AC fail
- Battery discharged to 30% of capacity
- Charger fail

Batteries Included: maintenance free, valve regulated, sealed lead acid, 18, 55, and 100 AH capacity

Enclosure Size including Mounting Flanges (H x W x D):

A: 30” x 23” x 10.5”

B: 23.15” x 24” x 24”

Enclosure A: NEMA-4, UL listed (E465553), welded aluminum with IP 65 battery vent and locking door, IP-68 cable entries.

Red powder coat wall mount.

Enclosure B: NEMA-4, welded aluminum with IP 65 vent, pad lockable door handle, IP-68 cable entries.

Red powder coat wall mount.

For more information contact a Primus Sales Representative at 800-435-1636 or support@primuselectronics.com.

- Contributed by Gerry Fritzke





# RAILROAD

## RediPak, SmartPak, Quantum EOT Battery Pack Chargers

Fully Compatible Cost Effective Chargers for Wabtec/Pulse, US&S and Quantum 12 Volt SLA Battery Packs.

### Charger Features

- Battery Polarity Reversal: Protects the charger and battery pack against incorrectly installed batteries.
- Over Current Protection: Protects the charger from over-current demand.
- Short Circuit Protection: Protects the charger from short-circuit damage.
- Over Voltage Protection: Protects the battery pack from damage.

RRP-431 ...A single SmartPak, RediPak, Quantum port. RRP-432 ...Dual SmartPak, RediPak, Quantum ports. RRP-433 ...A single SmartPak, RediPak, Quantum port plus a single NextGen battery port.

### Charger Specifications

Input Voltage: 100-120VAC

Input Frequency: 47-63Hz

Output Voltage: @Fast Charge 14.4VDC Float 13.6VDC

Output Current: DC 2,000mA (Fast Charge) Battery Capacity: 5-20Ahr (recommended) Operating Temp: +32F/0C to +104F/40C Storage Temp: -4F/-20C to +140F/60C

To answer any questions please contact Primus at [support@primuselectronics.com](mailto:support@primuselectronics.com).

- Contributed by Pat Morgan

## Next-Gen™ EOT Battery Pack Chargers

Fully Compatible Cost Effective Chargers for EOT's with 24 VDC input for onboard charging. Quantum/Siemens 3920 Smart Charging only.

Wabtec

EOT-ATX-NG EOT-ATX-NG3 and NG3T EOT-ATX-G4

### Charger Features

- Battery Polarity Reversal: Protects the charger and battery pack against incorrectly installed batteries.
- Over Current Protection: Protects the charger from over-current demand.
- Short Circuit Protection: Protects the charger from short-circuit damage.
- Over Voltage Protection: Protects the battery pack from damage.

RRP-441 .....Single port Next-Gen™ Charger.

RRP-442 .....Dual port Next-Gen™ Charger.

RRP-444 .....Four port Next-Gen™ Charger.

RRP-446 .....Six port Next-Gen™ Charger

RRP-448 .....Eight port Next-Gen™ Charger

RRP-433 .....A single SmartPak, RediPak, Quantum port plus a single NextGen battery port.

### Charger Specifications

Input Voltage: 100-120VAC

Input Frequency: 47-63Hz

Output Voltage: 24 VDC

Output Current: DC 5,000mA

Battery Capacity: 5-20Ahr (recommended) Operating Temp: +32F/0C to +104F/40C Storage Temp: -4F/-20C to +140F/60C



RRP-440.1/072 (not shown) single connector replacement cable. Length: 72 inches.





# The U.S. rip and replace program

Who makes your network equipment is as important as its performance

The Secure and Trusted Communications Networks Act of 2019 (H.R. 4998) calls for the removal and replacement of network equipment supplied from companies deemed to present a national security risk. A rip and replace of your existing network can be disruptive and costly. CommScope helps make the transition quick, easy, and cost-effective.

## Add reliable performance and faster deployment with CommScope

As a U.S. company with global reach, CommScope provides fast local distribution and breadth of solutions to improve your network's performance and accelerate deployment while lowering total cost of ownership. Now, one trusted source can provide all your macro cell needs: base station antennas, end-to-end RF path components, fiber-to-the-antenna (FTTA) connectivity, microwave backhaul, power delivery solutions and structural supports.

CommScope gives you the flexibility to support any U.S. licensed band. With state-of-the-art testing and an industry-leading warranty program, we deliver quality and reliability you can count on.

## Base station antennas

Our 12-port, FFV4, multiband antennas are the perfect replacements for your existing antennas. Now you can support all U.S. licensed FDD bands in a 20-inch wide radome, while delivering excellent performance for rural coverage. Visit us online for additional antenna options.

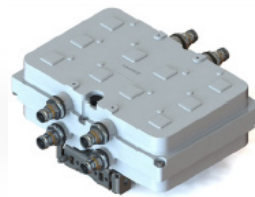


- Supports 600/700/850 + AWS/PCS/WCS/2600 bands
- 4 low-band ports and 8 mid-band ports for greater flexibility
- 4, 6, and 8-foot lengths available
- Every antenna is 100% factory tested for return loss, isolation and PIM for reliable, trouble-free performance

## Interference mitigation filters (IMF)

CommScope's interference mitigation filters use proprietary technology that effectively suppresses interfering bands while passing all desired bands and information. IMF solutions can be deployed as standalone filters or integrated into tower mounted amplifiers (TMAs) and multiband combiners.

- Extensive portfolio and fully-customizable solutions for all applications
- Compact and lightweight for reduced tower loading and lease costs
- Industry-leading IMF technology



## Ultra-compact multiband combiners

Our ultra-compact multiband combiners can help you increase cell capacity while significantly decreasing space requirements and deployment time.

They help your growing network adapt and evolve, easily and seamlessly, to the changing wireless environment.

- Up to 60 percent smaller than traditional combiners
- Lighter weight for easier installation in tight spaces
- Designed to support LTE bands and provide seamless migration to 5G

## Connectivity and power solutions



From fiber and power cables, RF jumpers and connectors, to junction boxes, CommScope's HELIAX® connectivity portfolio covers all your RF path and fiber-to-the-antenna (FTTA) architectures. All solutions are engineered and rigorously tested to ensure fast and flexible deployment with superior reliability and PIM protection.

- D-CLASS PIM-rated jumpers and super-flexible cabling
- 4.3-10 and smaller coaxial connectors for improved PIM performance
- SureGuard® weatherproofing boots and PIM-guard accessories
- FTTA solutions for any site architecture



## High-power delivery

PowerShift®—the industry's first intelligent, dc power supply—regulates voltage at the RRU or remote, eliminating the need for a tower-top converter. Besides lowering CapEx and installation time, it extends backup battery runtimes, enabling RRUs to operate up to 50 percent longer during a power outage.



- PowerShift 1460: One rack unit module supports up to 12 circuits.
- PowerShift 2000R: Optimized for 12-RRU sites, delivering 2 kW per circuit output.
- PowerShift 2000FA: Front access connections for 12-RRU sites, delivering 2 kW per circuit output.

## Microwave backhaul solutions



CommScope's single and dual-band microwave backhaul antennas support long and short haul applications and frequencies from 4.4 GHz to 80 GHz (E-Band). Whether

you need farther reach or backup for your short haul, a low wind-load antenna for your long haul, or a kit that strengthens your microwave antenna's ability to withstand higher wind speeds, we have what you need. For added flexibility, our OEM-integrated antennas are modular—making it easy to swap radios in the field using a compatible radio interface kit available from the OEM.

- Microwave and mmWave in one antenna with flexible configurations
- LX6 low wind-load antennas available in 6, 7, and 11 GHz
- Field-installable high-wind kits increase survivability up to 155 mph (250 km/h)

## Structural supports and accessories

CommScope designs and engineers support systems and accessories for virtually any microwave or base station antenna structure, tower or monopole. Tested to meet or exceed the latest EIA/TIA requirements, they help ensure stable antenna alignment, RF path integrity, reduced customer churn and a lower total cost of ownership.

- Antenna mounts designed, engineered and tested for virtually any pole, structure and orientation
- Full line of accessories: pipes and angles, clamp sets, cable supports, hardware and more
- Configurable equipment platforms, canopies and kits



## Rely on CommScope

At CommScope, the breadth and quality of our mobile network solutions are matched only by our commitment to our customers. Making good on that promise requires superior engineering, constant testing and a comprehensive warranty program that's consistently rated one of the best in the business.

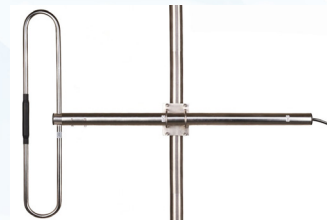
For over 40 years, CommScope has been the industry leader in wired/wireless network infrastructure. As you continue to address the challenges of an ever-changing mobile landscape, rely on our strength and experience.

A rip and replace is rarely a first option. But, with CommScope, you can do it faster and easier while improving your network performance and speed of deployment.

For more information contact one of our Primus sales representatives at [support@primuselectronics.com](mailto:support@primuselectronics.com). Or view our CommScope products online [HERE](#).

# EMR CORP

## DIPOLE ANTENNAS

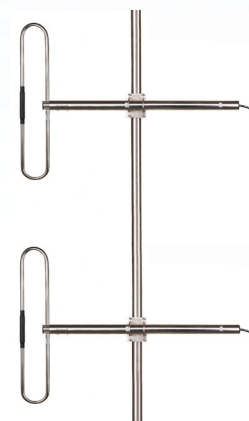


The **EMR150DP** antenna is a 2.5dBd gain, all electropolished stainless steel, folded dipole antenna for use in the High Band VHF Commercial Radio band.

Its wide bandwidth is ideal in duplexing and multicoupling. Its robust construction ensures excellent longevity and performance. The all electropolished stainless steel construction is ideally suited for weather corrosion resistance.

### Product Features

- Wide band
- 2.5 dBd gain
- Stainless steel construction
- Weather and corrosion resistance
- No tuning required, plug & play
- Ideal for Public Safety, Government, LMR, and Railroad Applications
- 3 Year Warranty

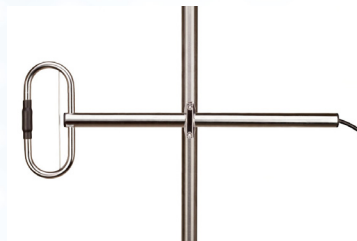


The **EMR150DP2** antenna is an all electropolished stainless steel, folded dipole antenna for use in the High Band VHF commercial radio band. Its wide bandwidth is ideal in duplexing and multicoupling applications where numerous operators are required to be connected to one antenna system. This dual antenna configuration includes all necessary bracketry and phasing harness to

stack the antennas for increased gain. It's robust construction ensures excellent longevity and performance.

### Product Features

- Wide band
- Stainless steel construction
- Weather and corrosion resistance
- No tuning required, plug & play
- Ideal for Public Safety, Government, LMR, and Railroad Applications
- 3 Year Warranty

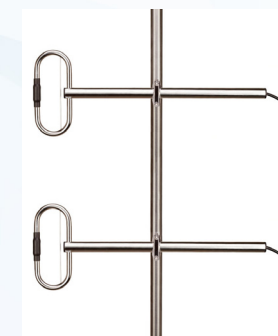


The **EMR450DP** single bay dipole is a rugged, all electropolished stainless steel, folded broadband dipole for use in the 360-520 MHz band. It is all stain-

less steel construction, suited to harsh environments. This antenna can be mounted in three configurations to allow for different shaped radiation patterns in the H plane, including 1/4, 1/2 and Full Wave length spacing from the vertical mounting pole.

### Product Features

- Broad VSWR bandwidth
- Stainless steel construction
- Weather and corrosion resistance
- No tuning required, plug & play
- Ideal for Public Safety, Government, LMR, and Railroad Applications
- 3 Year Warranty



The **EMR450DP2** dipole array is a rugged broadband antenna for use in the 360-520MHz band. The dipoles are all welded and polished Stainless Steel construction suited to all harsh environments. The array can be mounted in three configurations to allow for different shaped radiation pat-

terns in the H plane, including 1/4, 1/2 and full wavelength spacing from the vertical mounting pole. This dual antenna configuration includes all necessary bracketry and phasing harness to stack the antennas for increased gain.

### Product Features

- Wide band
- Stainless steel construction
- Weather and corrosion resistance
- No tuning required, plug & play
- Ideal for Public Safety, Government, LMR, and Railroad Applications
- 3 Year Warranty





# **PRIMUS**

4180 E Sand Ridge Rd.  
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