GE
Grid Solutions

Wireless Enclosure Systems

Integrated Solutions for Reliable Performance

Critical industrial applications require rugged and reliable housing for communications equipment. GE provides pre-designed Wireless Enclosure Systems that consist of MDS industrial wireless communication devices, power supplies, cables, and connectors assembled in ruggedized enclosures for new and existing communication installations. The portfolio includes Rack Mount Enclosures, Enclosure-Ready Panels, Outdoor Packaged Enclosures, and Custom Models.

The pre-designed Wireless Enclosure Systems are validated by GE to operate with specific wireless devices from the MDS product portfolio including Orbit, iNET/iNET-II, entraNET, TransNET, SD, and Mercury.

Portfolio Overview

Each Wireless Enclosure System consists of a combination of accessories to support a different wireless device. The Wireless Enclosure System portfolio includes Rack Mount Enclosures, Enclosure-Ready Panels, Outdoor Packaged Enclosures, and Custom Models to support a variety of diverse applications.

Rack Mount Models

- Redundant fail-over chassis
- Automatic switchover for radios and power supplies
- Alarm connections for customer-supplied alarm equipment
- Supports up to two radio transceivers including iNET/iNET-II, entraNET and SDx platforms
- Tabletop or 19" rack mountable

Enclosure-Ready Panels

- Fully configurable panels ready to be integrated into enclosures
- Mount on Wall or Rack
- Supports iNET/iNET-II, TransNET, SD, entraNET, and Orbit Platform transceivers

Outdoor Packaged Enclosures

- NEMA 4X rating to offer protection from extreme weather conditions.
- Wall or pole mountable
- Supports iNET/iNET-II, TransNET, Mercury, SD, entraNET, and Orbit Platform transceivers

Custom Models

- Fully customizable options for form and function to fit customer requirements
- Supports one to multiple transceivers, including different radio types
- Assorted AC and DC options including battery backup
- Seamlessly integrate customer supplied equipment into custom enclosures for drop-in solutions

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Simplified Experience

- Wide variety of pre-designed solutions
- All solutions available to order via GE online store
- Standard lead times on pre designed solutions
- Simplified installation

Ruggedized with Exceptional Quality and Reliability

- Extended operating temps -40°C to + 70°C *
- Products compliant to IEEE 1613, IEC 61850-3, Class 1/Div2 standards IP67 and MIL-STD-810*
- Products built to IPC-A-610 REV E CL-2 standards
- Manufacturing sites ISO 9001:2008 accredited

Design Flexibility and Product Expertise

- Customized engineering available for tailored solutions to support application diversity
- Technical expertise with MDS products

Applications

- Supports a variety of network deployments including Electric Utility, Oil & Gas, Water/ Waste Water, Transportation, and Factory environments
- Outdoor enclosures operational in harsh environments up to NEMA 4X standards

**Varies by specific model*

Wireless Enclosure Systems – Rack Mount Models

The Rack Mount models are suitable for use in environmentally controlled areas. Designed with redundant power supplies and radios, the Rack Mount model provides increased network availability in a pre-integrated solution. If a failure occurs in one of the radios or its associated power supply, the unit continues to communicate to mission critical assets.

The Rack Mount models are available with a variety of specification options on transceivers, power supply, mounting type, and antenna redundancy in an aluminium case. This type of enclosure is synonymous with P21, P22 and SDxP models.

Transceivers (Note: radios sold separately, 1 or 2 Radios Per Enclosure):

- MDS iNET/iNET-II Series Access Point
- MDS iNET/iNET-II Series Dual Gateway Remote
- MDS iNET/iNET-II Series Ethernet Bridge Remote
- MDS iNET/iNET-II Series Serial Remote
- MDS entraNET (Access Point only)
- MDS SD Series Transceivers*

Mounting Types:

- Table Top
- 19" Rack-Mounted

Antenna Parts:

- One Antenna
- Two Antennas (Redundant)

Power Supplies:

- 115/230 VAC with battery backup
- 115/230 VAC without battery backup
- 12 VDC (10.5-15 VDC Operating Range)
- 24 VDC (18-36 VDC Operating Range)
- 48 VDC (36-72 VDC Operating Range)
- 125 VDC (100-200 VDC Operating Range)

Environmental:

- Temperature Range: 0°C to +50°C (32°F to 122°F)
- Humidity: 95% at 40°C (104°F), non-condensing

~Note: Temperature range is dependent on options selected

Ordering Information for Rack Mount Models

To order on the GE Online Store, use the following configuration options. Note: options available based on selection criteria.

** Two radio transceivers are included in an SDxP enclosure*

Radio Option	Input Voltage Option	Battery Option	Antenna Ports
iNET/iNET-II	12 VDC	Without Battery	1
entraNET	24 VDC	With Battery	2 (Redundant)
SD	48 VDC		
	125 VDC		
	115/230 VAC		

Wireless Enclosure Systems – Enclosure-Ready Panels

The Enclosure-Ready Panel models are fully configured panels that are suitable for use in fiberglass, steel, aluminium, or other enclosures that provide protection from the elements.

The Enclosure-Ready Panel models are available with a variety of specification options on transceivers, power supply, mounting type, and enclosures. This type of enclosure is synonymous with P60 and WSG-P70 models without enclosures.

Transceivers (Note: radios sold separately, Single to Multiple radios per panel):

- MDS Orbit Platform
- MDS iNET/iNET-II Series
- MDS TransNET Series
- MDS EntraNET
- MDS SD Series

Mounting Types:

- Wall
- Rack Mountable

Additional Options:

- Battery (None, 4.5 Ah, 12Ah)

Power Supplies:

- 115 – 250 VAC (88-264 VAC Operating Range) with or without battery backup
- 12 VDC without Converter
- 12 VDC with Converter (10.5-15 VDC Op. Range)
- 24 VDC (21-32 VDC Operating Range)
- 48 VDC (36-76 VDC Operating Range)
- 125 VDC (100-200 VDC Operating Range)

Environmental:

- Temperature Range: -20°C to +50°C (-4°F to 122°F)
- Humidity: 95% at 40°C (104°F), non-condensing

~Note: Temperature range is dependent on options selected

Panel Sizes

- 273 x 225 x 2.5 mm (10.75 x 8.88 x 0.1 in)
- 468.4 x 366.8 x 2.5 mm (1844 x 14.44 x 0.1 in)

Ordering Information for Enclosure-Ready Panels

To order on the GE Online Store, use the following configuration options. Note: options available based on selection criteria.

Radio Option 1	Radio Option 2	Input Voltage Option	Battery Option	Application
iNET/iNET-II	iNET/iNET-II	12 VDC	No Battery	None
entraNET	entraNET	24 VDC	4.5 AH	Removable Accessory Plate
SD	SD	48 VDC	12 AH	
TransNET	TransNET	125 VDC		
MDS Orbit		115/250 VAC		
		12 VDC w/o Converter		

Wireless Enclosure Systems – Outdoor Packaged Enclosure Models

The Outdoor Packaged Enclosure models are suitable for use in harsh environmental conditions, with NEMA 4X certification the enclosures provide protection from extreme weather conditions and highly corrosive environments, resulting in protection of the radio assets and ensured network availability.

The outdoor models are available with a variety of specification options on transceivers, power supply, mounting type, and enclosures. This type of enclosure is synonymous with P60, P62, and WSG-P70 models.

Transceivers (Note: radios sold separately, Single to Multiple radios per enclosure):

- MDS Orbit Platform
- MDS iNET/iNET-II Series
- MDS TransNET Series
- MDS EntraNET
- MDS Mercury E Series
- MDS SD Series

Power Supplies:

- 110 – 250 VAC (88-264 VAC Operating Range)
- 12 VDC without Converter
- 12 VDC with Converter (10-20 VDC Operating Range)
- 24 VDC (21-32 VDC Operating Range)
- 48 VDC (36-76 VDC Operating Range)
- 125 VDC (100-200 VDC Operating Range)

Mounting Types:

- Wall
- Pole-Mountable

Additional Options:

- Heater
- Battery Backup (None, 1.4Ah, 4.5Ah, 12Ah - AC Supplies only)

Environmental:

- Temperature Range: -20°C to +50°C (-4°F to 122°F)
- Humidity: 95% at 40°C (104°F), non-condensing

** Note: Temperature Range is dependent on options selected*

Enclosure Size:

- Smallest Model: 350 x 301 x 165 mm (13.75 x 11.85 x 6.5 in)
- Medium Model: 405.89 x 355.09 x 210.06 mm (15.98 x 13.98 x 8.27 in)
- Largest Model: 548.39 x 446.79 x 223.25 mm (21.59 x 17.59 x 8.79 in)

Ordering Information for Outdoor Packaged Enclosure Models

To order on the GE Online Store, use the following configuration options. Note: options available based on selection criteria.

Radio Option 1	Radio Option 2	Input Voltage Option	Battery Option	Multiple Radio Configuration	Enclosure Size	Heater Option	Media 1 & 2 Option	Mounting Option	Additional Features
iNET/iNET-II	iNET/iNET-II	12 VDC	No Battery	N/A	350 x 301 x 165 mm (13.75 x 11.85 x 6.5 in)	None	None	None	None
entraNET	entraNET	24 VDC	1.4 AH	Master	405.89 x 355.09 x 210.06 mm (15.98 x 13.98 x 8.27 in)	Included	3G Cellular	Wall	VOX
SD	SD	48 VDC	4.5 AH	Tail End Link Repeater	548.39 x 446.79 x 223.25 mm (21.59 x 17.59 x 8.79 in)		4G Cellular	Pole	
TransNET	TransNET	125 VDC	12 AH	Redundant			WiFi		
Mercury E	Mercury E	115/250 VAC					Licensed Narrow-band		
MDS Orbit	MDS Orbit	12 VDC w/o Converter					Unlicensed 900		

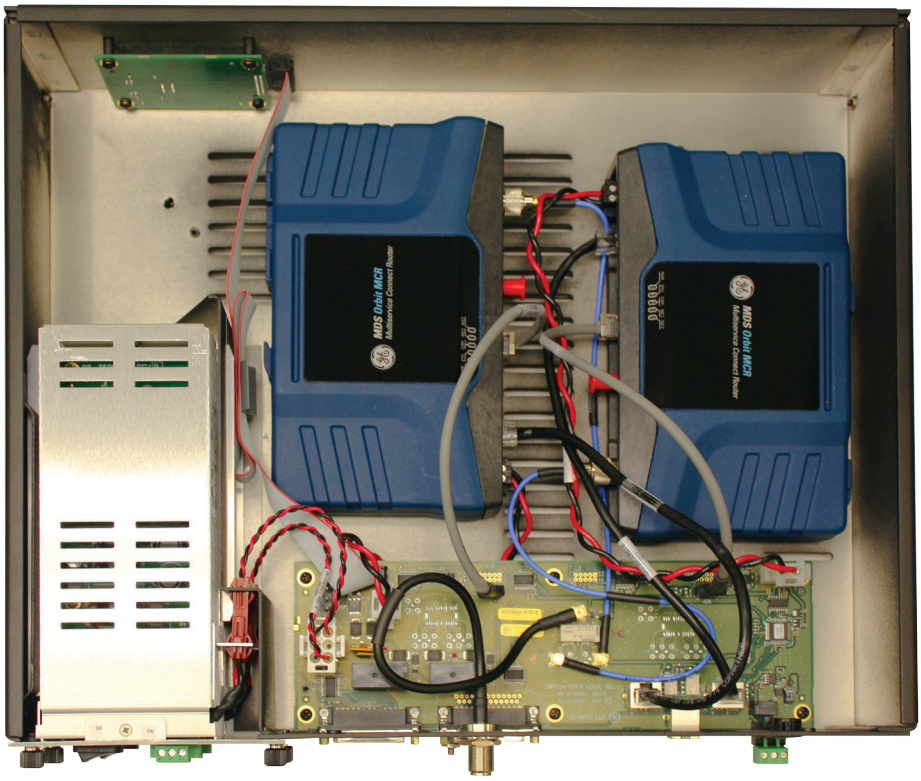
Wireless Enclosure Systems - Customized Models

Customized models are designed to meet customers unique requirements that differ from the pre-designed models. Each customized solution is developed and designed by a GE engineer with user-defined options such as:

- Radio Model
- Quantity of radios
- Radio configuration
- Input power specification
- Battery backup
- Heating
- Enclosure type
- Mounting options
- Specific user equipment

Ordering Information

To request a MDS Customized Model, please visit our website at http://store.gedigitalenergy.com/MDS/MDSCustomModel.aspx or contact MDS Projects and Services at **gemds.projects@ge.com**.



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