

Verrill Dana^{LLP}

Attorneys at Law

KELLY L. BAETZ
PARTNER
kbaetz@verrilldana.com
Direct: 207-253-4472

ONE PORTLAND SQUARE
PORTLAND, MAINE 04112-0586
207-774-4000 • FAX 207-774-7499
www.verrilldana.com

June 30, 2016

VIA HAND DELIVERY

Town Council
c/o Karen Farber, Chair
Town of Falmouth
271 Falmouth Rd.
Falmouth, ME 04105

RE: Conditional Rezoning for Proposed Verizon Wireless Tier III Wireless Service Facility
175 Falmouth Rd., Falmouth, ME

Dear Sir or Madam:

On behalf of Verizon Wireless and pursuant to Article II-8-10 Section 8-350 of the Personal Wireless Service Facilities Siting Ordinance, enclosed please find a request for Conditional Rezoning for the construction of a wireless telecommunications facility on property located at 175 Falmouth Rd., Falmouth, ME. Also, enclosed is a check for \$500.00 to cover the cost of the conditional rezoning application fee.

We respectfully request that the Town Council consider this request at its next regularly scheduled meeting on July 11, 2016. Please do not hesitate to contact the project manager, Charles Fredette (at 603-848-1461), or me should you have any questions.

Very truly yours,



Kelly L. Baetz

KLB/mtt
Enclosures
cc: Charles Fredette

REQUEST FOR CONDITIONAL REZONING

TIER III WIRELESS SERVICE FACILITY
175 FALMOUTH ROAD, FALMOUTH, ME

Pursuant to Section 8-351(c) of the Personal Wireless Service Facilities Siting Ordinance and Section 19-17 of the Zoning and Site Plan Review Ordinance, Verizon Wireless respectfully requests conditional rezoning of Map R04 Lot 22 to permit construction of a Tier III personal wireless service facility.

FALMOUTH PLANNING BOARD REQUEST FOR HEARING

IN ADDITION TO THE SPECIFIED REVIEW FEES, APPLICATIONS SHALL BE ACCOMPANIED BY A SEVENTY-FIVE (\$75.00) DOLLAR FEE TO COVER THE COST OF NOTIFICATIONS AND PUBLISHING.

Name of Applicant: Verizon Wireless c/o Kelly Baetz Phone# (207) 253-4472

Fax: (207) 774-7499 E-Mail: kbaetz@verrilldana.com Alt. Phone # _____

Full Address: Verrill Dana, LLP, PO Box 586, Portland, ME 04112-0586

Address of Property to be Developed: (if different) 175 Falmouth Rd., Falmouth, ME 04105

Map: R04 Lot: 022 Zone: Residential B

Property Owner (if other): Amsterdam Property Corp.

Full Address: 160 Falmouth Rd., Falmouth, ME 04105 Phone: _____

The undersigned requests that the Falmouth Planning Board consider the following application for:

- | | |
|---|--|
| <input type="checkbox"/> Pre-application Sketch Plan Review | <input type="checkbox"/> Major Subdivision |
| <input type="checkbox"/> Minor Subdivision | <input type="checkbox"/> Site Plan Review |
| <input type="checkbox"/> Private Way | <input type="checkbox"/> Shoreland Zone Permit |
| <input type="checkbox"/> Sign Permit | <input type="checkbox"/> Fill Permit |

Other (specify) Request for Conditional Rezoning to build a Tier III wireless Service Facility.

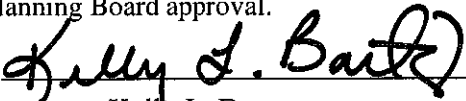
Notes to the Applicant:

1. A short description of the project must be attached to this form.
This application must be filed at the Town Hall no later than twenty-eight (28) days prior to the regular meeting of the Board (1st Tuesday monthly). Applications shall be accompanied by all application fees and materials required by the applicable ordinance(s), checklists and fee schedule.
2. All applications shall include all materials and copies as specified on the submittal requirements form.
3. All materials in color shall be copied in color.

Application Authorization

I hereby make application to the Town of Falmouth for the above-referenced property(ies) and the development as described. To the best of my knowledge the information provided herein is accurate and is in accordance with the Zoning and Subdivision Ordinances of the Town, except where waivers are requested. The Town of Falmouth Planning Board and/or town employees are authorized to enter the property(ies) for purposes of reviewing this proposal and for inspecting improvements as a result of an approval of this proposal. I understand that I am responsible for appearing, or having someone appear on my behalf, at all meetings before the Planning Board.

Unless the applicant has submitted notice to the Community Development Department as part of the initial and any subsequent submittals, no alteration of site conditions, including the existing landscape, structures and buildings, shall occur between the date of application submittal and the date the application has received final sign off from staff after Planning Board approval.

Signed: 
Printed name: Kelly L. Baetz

Date: 6/30/16

Please identify yourself (check one): Agent* Property Owner

*(If you are an agent, written authorization from the property owner must be attached to this form.)



July 14, 2014

Town of Falmouth
271 Falmouth, Road
Falmouth, ME 04105

Dear Sir/Madam,

On behalf of Portland Cellular Partnership d/b/a Verizon Wireless, I hereby authorize Kelly Boden to act as the authorized agent for Verizon Wireless with respect to any local permit applications or Town Council authorizations required in connection with proposed wireless installations in the Town of Falmouth, Maine.

Please do not hesitate to contact me with any questions.

A handwritten signature in black ink, appearing to be "E. Dalmus", written over a horizontal line.

Ellen Dalmus
Real Estate Manager
New England Network

Verizon Wireless
400 Friberg Parkway
Westborough, MA 01581
508-330-3331

MEMORANDUM OF LEASE

THIS MEMORANDUM OF LEASE is made this 14th day of May, 2014, with respect to the following described Lease Agreement ("Lease").

DATE OF LEASE: May 14, 2014

NAME OF LESSOR: **AMSTERDAM PROPERTY CORP.**, a Maine corporation with an address of 1321 Washington Avenue, Portland, Maine 04103.

NAME OF LESSEE: **PORTLAND CELLULAR PARTNERSHIP**, a Maine general partnership, d/b/a **VERIZON WIRELESS**, 180 Washington Valley Road, Bedminster, New Jersey 07921, Attn: Network Real Estate.

DESCRIPTION OF
LEASED PREMISES:

The Premises consists of a 100 foot by 100 foot square parcel of land situated on the property owned by LESSOR off Falmouth Road, in Falmouth, Cumberland County, Maine, which property is identified as Lot 22 on Tax Map R04 of the Town of Falmouth and further described in Deed Book 21736 at Page 88 as recorded in the Cumberland County Registry of Deeds (the "Property").

Together with the non exclusive right (the "Rights of Way") for ingress and egress, seven (7) days a week twenty four (24) hours a day, on foot or motor vehicle, including trucks over or along a twenty (20) foot wide right of way extending from the nearest public right of way, Falmouth Road, to the Land Space, and for the installation and maintenance of utility wires, poles, cables, conduits, and pipes over, under, or along one or more rights of way from the Land Space.

The approximate location of the Premises is shown on Exhibit L-1 attached hereto.

TERM: The initial term of the Lease is five (5) years, commencing on the Commencement Date. The Commencement Date shall be the first (1st) day of the month following (i) the date LESSEE is granted a building permit by the governmental agency charged with issuing such permits, or (ii) the date of execution of the Agreement by the Parties, whichever is later.

RENEWAL TERMS: Four (4) additional five (5) year terms.

RIGHT OF FIRST
REFUSAL:

If LESSOR elects, during the term of the Lease, (i) to sell or otherwise transfer all or any portion of the Property, whether separately or as part of a larger parcel of which the Property is a part, for the purpose of operating and maintaining communications facilities or the management thereof, or (ii) to grant to a third party by easement or other legal instrument an interest in and to that portion of the Property occupied by LESSEE, or a larger portion thereof, for the purpose of operating and maintaining communications facilities or the management thereof, LESSEE shall have the right of first refusal with respect thereto as more fully set forth in the Lease.

LESSEE'S EQUIPMENT: LESSEE's equipment and all other facilities installed, erected or placed by LESSEE on the Premises in accordance with the provisions of the Lease shall be and remain the personal property of LESSEE notwithstanding the manner of affixation.

THIS MEMORANDUM OF LEASE is prepared for recording and for the purpose of making a public record of said Lease, and it is intended that the parties shall be subject to all of the provisions of the Lease and that nothing herein shall be construed or deemed to alter or change any of the terms or provision of the Lease.

IN WITNESS WHEREOF, LESSOR has executed this Memorandum of Lease as of the day and year first above mentioned.

LESSOR: AMSTERDAM PROPERTY CORP.

By: 

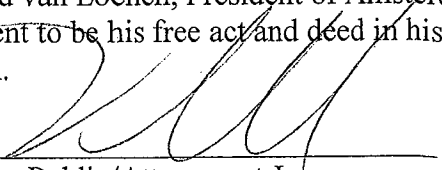
Print Name: Eduard van Loenen

Its: President

STATE OF MAINE
COUNTY OF CUMBERLAND

April 23, 2014

Then personally appeared the above-named Eduard van Loenen, President of Amsterdam Property Corp., and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said corporation.


Notary Public/Attorney-at-Law

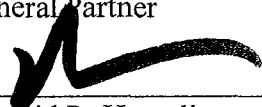
Print Name: Nicholas J. Morrill

My Commission Expires: _____

IN WITNESS WHEREOF, LESSEE has executed this Memorandum of Lease as of the day and year first above mentioned.

LESSEE : PORTLAND CELLULAR PARTNERSHIP,
d/b/a VERIZON WIRELESS

By: CELLCO PARTNERSHIP
Its General Partner


By: 
David R. Heverling
Area Vice President Network
514M

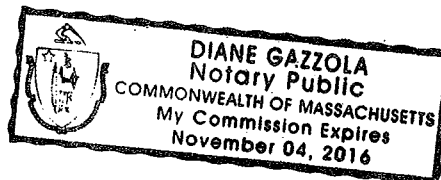
COMMONWEALTH OF MASSACHUSETTS
COUNTY OF WORCESTER

On this 14 day of May, 2014, before me appeared David R. Heverling, to me personally known, who, being by me duly sworn, did say that he is authorized by the Senior Vice President & Chief Technical Officer of Cellco Partnership, a Delaware General Partnership, general partner of Portland Cellular Partnership d/b/a Verizon Wireless, to execute the foregoing instrument and that said instrument was signed on behalf of said partnership and said David R. Heverling acknowledged said instrument to be his free act and deed.

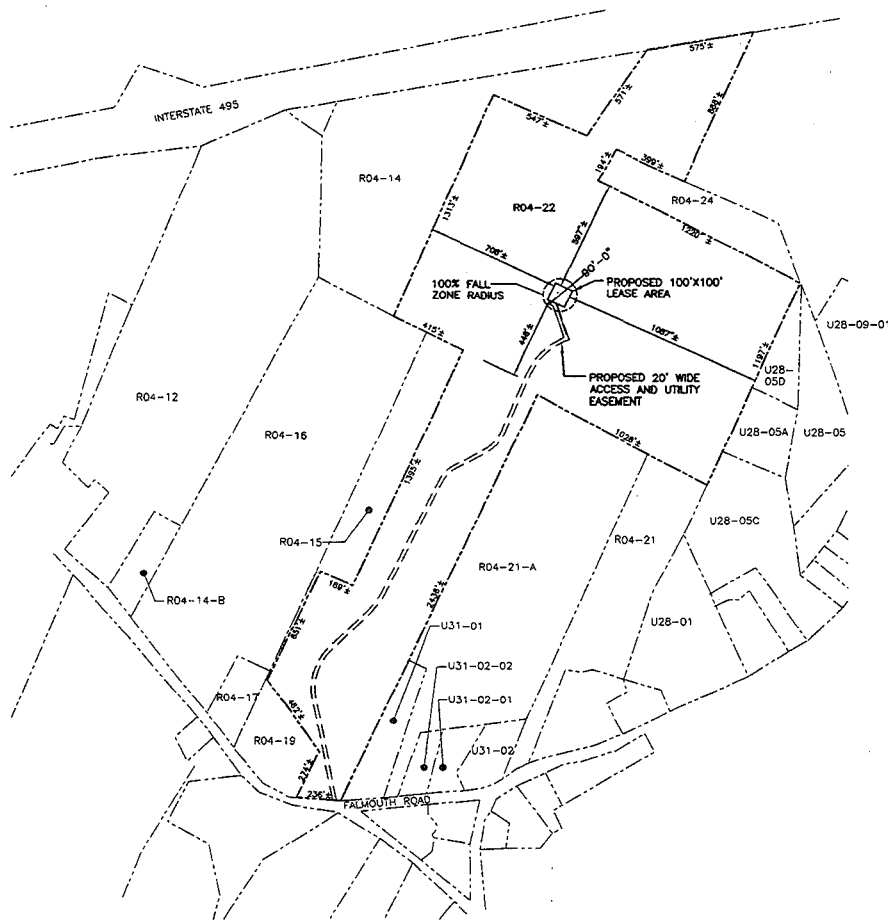
IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at my office in said county and state as of the day and year last above written.

Notary Public

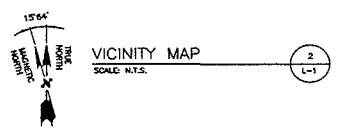
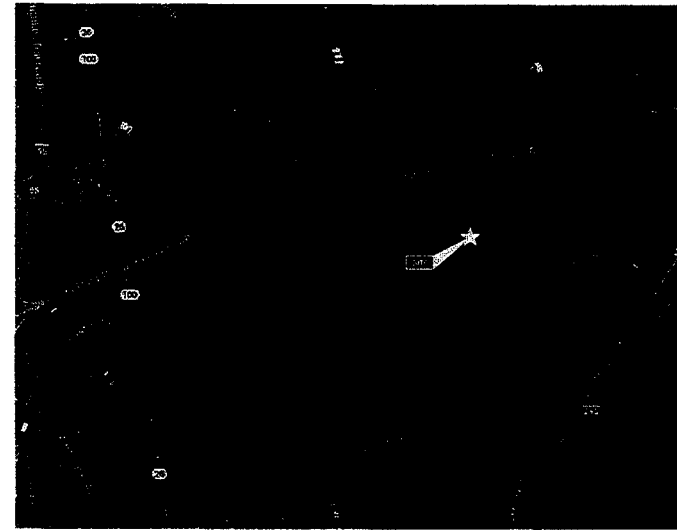
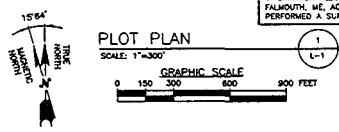

Print Name: Diane Gazzola
My commission expires: _____



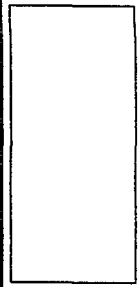
LEASE EXHIBIT



NOTE:
 PROPERTY LINE INFORMATION BASED ON SITE ANALYSIS BY ANTHONY MUCICH, LANDSCAPE ARCHITECT, PROJECT: UPPER RIDGE FALLS, DATED 11/14/13. INFORMATION ALSO RECEIVED FROM THE ASSESSOR'S WEBSITE FOR THE TOWN OF FALMOUTH, ME, ACCEDED ON 04/08/14. HUDSON DESIGN GROUP HAS NOT PERFORMED A SURVEY AT THIS SITE.



NOTE:
 AN ANALYSIS OF THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THE PROPOSED LOADING HAS NOT BEEN COMPLETED BY HUDSON DESIGN GROUP, LLC. DRAWINGS ARE SUBJECT TO CHANGE PENDING OUTCOME OF A STRUCTURAL ANALYSIS.



Hudson Design Group
 INCORPORATED
 175 FALMOUTH RD
 FALMOUTH, ME 04105
 TEL: (207) 553-5333
 FAX: (207) 553-5336

PREPARED BY:

PLOT PLAN AND VICINITY MAP

REV	DATE	DESCRIPTION	BY	CHK	APP'D
0	03/20/14	FOR REVIEW	JSE	JZ	JPL
1	04/08/14	FOR REVIEW	JSE	JZ	JPL
2	07/27/14	REVISED PER COMMENTS	JSE	JZ	JPL

REGISTERED ENGINEER

FALMOUTH 3 ME
 175 FALMOUTH RD
 FALMOUTH, ME 04105

L-1

PROJECT NARRATIVE

REQUEST FOR CONDITIONAL REZONING APPROVAL TO BUILD A TIER III WIRELESS SERVICE FACILITY LOCATED AT 175 FALMOUTH ROAD, FALMOUTH, ME

In order to meet the radio frequency coverage objectives in the Town of Falmouth, Verizon Wireless submits this proposal for Conditional Rezoning to construct a new wireless telecommunications facility at 175 Falmouth Road, Falmouth, Maine (the “Facility”).

The RF Report will address the significant gaps in coverage in the Town of Falmouth and will be provided prior to the July 11th meeting. This Facility consists of two primary structures: (1) a 90-foot tall monopole and (2) equipment cabinets. As shown on the Site Plan attached at **Exhibit 7**, the tower and equipment cabinets will be installed inside a 75' x 75' fenced enclosure, along with a propane tank to provide fuel for the back up generator. Each of these elements are described briefly below.

Tower. The tower is designed as a monopole structure and will be 90 feet in height. The tower will not be lit, and it will be painted a flat gray color. If desired by the Town, the tower may instead be designed as a monopine.

Antennas. The antenna panels will be mounted at the 87' level of the monopole and the highest point of the antennas will reach to 90 feet. Antenna specifications will be provided prior to the July 11th meeting.

Equipment Cabinets. The proposed equipment cabinets will be installed on a concrete pad adjacent to the monopole, and will house the Facility’s power and transmission equipment. As the equipment cabinets are unmanned and not designed for occupancy, there will be no need for potable water, sewer or waste disposal services.

Propane Generator. A generator will be located on a 12' x 16' concrete pad and will be fueled by propane. **See Site Plans, Exhibit 7.**

The Wireless Facility will produce minimal noise from a small fan to cool the power equipment in the equipment cabinets, and would be similar to the sounds made by a small residential room air conditioner. The Facility will not produce any other noise, or any dirt, dust, glare, odor, fumes, smoke, gas, sewage, refuse, vibration or danger of explosion or fire and will therefore not be detrimental or offensive to the neighborhood; nor will the Facility pose any hazard to health or safety.

Once installed, the Facility will be unmanned. Thus, other than periodic inspections and maintenance, the Applicant anticipates that the Facility will generate no vehicular or pedestrian traffic. The Applicant currently estimates that routine maintenance inspections will be conducted not more frequently than once or twice a week.

As originally proposed, the Tier III Personal Wireless Facility will comply in all respects with all federal, state and local regulations concerning radio frequency emissions.

APPLICABLE STANDARDS

REQUEST FOR CONDITIONAL REZONING APPROVAL
TO BUILD A TIER III WIRELESS SERVICE FACILITY
LOCATED AT

175 FALMOUTH ROAD, FALMOUTH, ME

(pursuant to Section 19-17 of the Zoning and Site Plan Review Ordinance and Article II-8-10,
Sections 8-351 and 8-353 of the Wireless Ordinance)

Section 19-17 of the Zoning and Site Plan Review Ordinance

Sec. 19-17(1)

All conditional rezoning by the Town Council must be consistent with the Comprehensive Plan and Open Space Plan.

RESPONSE. The Falmouth Comprehensive Plan seeks to balance goals of encouraging orderly growth and development in appropriate areas while preserving certain areas of town. The Comprehensive Plan also seeks to encourage economic development in a reasonable and thoughtful manner. Residents and businesses are increasingly becoming dependent on wireless telecommunication, for both voice and data transmissions. Adequate service coverage is important in all areas, including residential, business, and transportation corridors. The proposed Facility will meet these goals by improving wireless service in Falmouth with a project that is designed to minimize visual and other impacts on the community. The proposed Facility will be sited on a very small portion (within a 100' by 100') leased area of a significant tract of land 82.89 acres. The location on the lot has been chosen to minimize visibility.

Sec. 19-17(2)

All conditional rezoning by the Town Council must establish rezoned areas which are consistent with the existing and permitted uses within the original zones.

RESPONSE. The impacts of the proposed use will be consistent with Amateur Radio Towers and Public Utilities, both of which are existing and permitted uses in the Residential B district. The proposed use will likely have less of an impact (due to traffic, noise, and other impacts) than Congregate Housing, Extractive Industries, Health Institutions, Multiplexes, Neighborhood Variety/Convenience Stores, and Roadside Stands.

Sec. 19-17(3)

All conditional rezoning by the Town Council must only include restrictions which relate to the physical development or operation of the property.

RESPONSE. Verizon Wireless is willing to discuss any conditions that the Town Council determines are necessary as part of the conditional rezoning.

Section 8-351 of the Wireless Ordinance

Sec.8-351(c)(a) Except for the height limitations on Tier I and Tier II facilities, the provisions of this Art. II-8-10 have been met.

RESPONSE. Please see the responses below regarding compliance with the applicable provisions of Article II.8.10.

Sec.8-351(c)(b) It is impractical to meet coverage and/or capacity needs of the applicant through one (1) or more Tier I or Tier II facilities

RESPONSE. The standard will be addressed in the RF report which will be provided to the Council prior to the July 11th meeting.

Sec.8-351(c)(c) The visual impact of a single facility would be less than the visual impact of the number of Tier I and/or Tier II facilities required to meet such need.

RESPONSE. The standard will be addressed in the RF report which will be provided to the Council prior to the July 11th meeting.

Section 8-353 of the Wireless Ordinance

Sec.8-353(2)(a) Setbacks. The tower or other mounting structure shall be set back from all property lines by a distance of one hundred (100) percent of the total facility height, provided, however, the planning board may authorize a facility to be located closer to any lot line if there are no structures used as dwelling units, places of employment or shelter for animals within the facility's fall zone and if the applicant obtains an easement or other recordable document, acceptable to the town attorney, prohibiting such structures on the portion of the abutting parcel that is within the facility's fall zone (e.g., the setback of an eighty-foot tall facility could be reduced to thirty (30) feet if an easement is established prohibiting development on the abutting lot within a fifty-foot fall zone). If the right-of-way for a public street is within the fall zone, the town public works department and/or the Maine Department of Transportation shall be included in the staff review in lieu of recording an easement or other document for the right-of-way. However, the planning board may waive this requirement for facilities which are mounted on or contained within a structure used for another purpose.

RESPONSE. Please see the Site Plan attached at Exhibit 7 for setbacks from all property lines. The proposed 90' tower is set back more than 100% of the facility height from all property lines.

Sec.8-353(3)(a) Personal wireless service facilities shall not be sited or built on land shown to be in the flood way or coastal high hazard area on the flood boundary of flood insurance rate maps of the town.

RESPONSE. The proposed Facility is not located in a flood zone.

Sec.8-353(3)(b)(i) Personal wireless service facilities shall not be sited or built on land which is unsuitable for development in its natural state because of topography, drainage, or subsoil conditions. Specific conditions include but are not limited to: areas having unstable soils subject to slumping, mass movement, or accelerated erosion.

RESPONSE. The proposed Facility is not located on unstable soils. Following issuance of all local permit approvals, Verizon Wireless' contractors will conduct a full evaluation of soil conditions and will design an appropriate foundation system for the proposed tower.

Sec.8-353(3)(b)(ii) Personal wireless service facilities shall not be sited or built on land which is unsuitable for development in its natural state because of topography, drainage, or subsoil conditions. Specific conditions include but are not limited to: areas classified as wetlands by state or federal law.

RESPONSE. The proposed Facility will be located on land suitable for development. The proposed grade is permissible for road construction. No

subsurface wastewater installation is proposed. The tower construction will not impact any wetlands. The only direct impact to a wetland will be a single wetland crossing associated with road construction. This is a permissible activity with a permit by rule from Maine DEP.

Sec.8-353(3)(b)(iii) Personal wireless service facilities shall not be sited or built on land which is unsuitable for development in its natural state because of topography, drainage, or subsoil conditions. Specific conditions include but are not limited to: areas characterized by “coastal wetlands” as that term is defined in 38 M.R.S.A. subsection 472(2).

RESPONSE. The proposed Facility is not located in a coastal wetland.

Sec.8-353(3)(b)(iv) Personal wireless service facilities shall not be sited or built on land which is unsuitable for development in its natural state because of topography, drainage, or subsoil conditions. Specific conditions include but are not limited to: land in resource protection districts.

RESPONSE. The proposed Facility is not located on land in a resource protection district.

Sec.8-353(4)(b) The facility shall be designed, constructed and maintained as follows: (i) guy wires shall not be permitted; (ii) outdoor lighting for the facility shall be permitted only during maintenance periods, regardless of the lumens emitted; (iii) any equipment cabinet not located within an existing structure shall be screened from all lot lines either by terrain, existing structures, existing vegetation, or by added vegetation approved by the code enforcements officer with the advice of a landscape architect; (iv) a grounding rod, whose height shall not exceed two (2) feet and whose width shall not exceed one (1) inch in diameter at the base and tapering to a point, may be installed at the top of the facility or the structure; and (v) within one (1) month after the completion of the installation of the facility the applicant shall provide a statement to the code enforcement officer certifying that the height of all components of the facility complies with this regulation.

RESPONSE. The proposed tower does not require guy wires and the tower will not be lit. Given its location within the lot, the equipment cabinets will be screened from view by existing topography and vegetation. Any grounding rod will comply with this provision and Verizon Wireless will provide a statement to the code enforcement officer in compliance with this requirement.

Sec.8-353(4)(c) Equipment shall be attached to the exterior of a structure only as follows: (i) the total number of arrays of antennas attached to the existing structure shall not exceed three (3), and each antenna proposed to be attached shall not exceed the size shown on the application, which size shall not exceed one thousand one hundred fifty-two (1,152) square inches; (ii) no antenna shall project from the

structure beyond the minimum required by the mounting equipment, and in no case shall any point on the face of an antenna project more than twelve (12) inches from the existing structure; and (iii) each antenna and associated equipment shall be a color that matches the existing structure. For purposes of this section, all types of antennas and dishes regardless of their use shall be counted toward the limit of three arrays.

RESPONSE. Please see the Site Plan attached at Exhibit 7 for information regarding compliance with these provisions. The Antenna Specifications sheets will be provided prior the July 11th meeting.

Sec.8-353(4)(d) Any fence needed for the facility shall blend with its surroundings and shall fence in the minimum area necessary to protect equipment and to protect the owner from liability.

RESPONSE. The proposed fenced area is the minimum area necessary to house and protect the equipment. The fence will not be visible from any abutting properties.

Sec.8-353(5)(b) The site shall provide adequate opportunities for screening and the facility shall be sited to minimize its visibility from adjacent parcels and streets, regardless of their distance from the facility. If the facility would be visible from a river, bay or lake, regardless of whether the site is adjacent thereto, the facility also shall be sited to minimize its visibility from such river, bay or lake. If the facility would be located on lands subject to a conservation easement or an open space easement, the facility shall be sited so that it is not visible from any natural feature specifically identified for protection in the deed of easement.

RESPONSE. Please see the photosimulations attached at Exhibit 9. The Facility will not be visible from any river, bay or lake, and it has been designed at the lowest possible height to minimize visual impacts. The Facility will not be located on lands subject to a conservation easement or other easement. The site may also be constructed as a “monopine” as shown on the simulations if such design is elected by the Council or the Board to minimize visual impacts.

Sec.8-353(5)(c) The facility shall not have an unreasonable adverse visual impact on resources identified in the town’s open space plan.

RESPONSE. The proposed facility is not visible from any identified resource in the town’s open space plan.

Sec.8-353(5)(d) A facility may not be located so that it and three (3) or more existing or approved personal wireless service facilities would be within an areas comprised of a circle centered anywhere on the ground having a radius of two hundred (200) feet.

RESPONSE. No existing or approved personal wireless facility is located within two hundred (200) feet of the proposed Facility.

Sec.8-353(5)(g) Each monopole shall be a color that will blend into the surrounding trees. The antennas, supporting brackets, and all other equipment attached to the monopole shall be a color that closely matches that of the monopole. The ground equipment, the ground equipment cabinet, and the concrete pad shall also be a color that closely matches that of the monopole, provided that the ground equipment and the concrete pad need not be of such a color if they are enclosed within or behind an approved structure, façade or fencing that (i) is a color that closely matches that of the monopole, (ii) is consistent with the character of the area, and (iii) makes the ground equipment and concrete pad invisible at any time of the year from any other parcel or public or private street.

RESPONSE. Please see the photosimulations for representations of the color of the proposed monopole. Also, at Exhibit 10 we have attached representative photos of the equipment cabinets and fencing that has been designed to be consistent with the character of the area. The base of the tower will not be visible from adjacent areas due to location within the large parcel of land.

Sec.8-353(6)(b) In no event shall a Tier III facility exceed two hundred (200) feet above grade level.

RESPONSE. The proposed monopole is 90 feet above grade level.

Sec.8-353(6)(c) Tier III facilities that are not subject to special painting or lighting standards of any federal agency shall meet as far as is practical the visual standards for Tier II facilities and at a minimum shall have a galvanized finish or be painted in a sky tone above the top of surrounding trees and shall be painted in an earth tone below treetop level or should be camouflaged by a “stealth” treatment.

RESPONSE. Please see our responses above and the photosimulations at Exhibit 9. The Facility may be constructed as a stealth monopine if such design is elected by the Town.

Sec.8-353(6)(d)(i) Unless existing vegetation provides a buffer strip the width of the required fall zone, calculated as the equivalent of the facility’s height, the planning board shall require that all property lines along roadways or visible to existing abutting or nearby buildings (within one-fourth (1/4) mile radius) be landscaped as follows: with six (6) to eight (8) foot evergreen shrubs planted in an alternate pattern, five (5) feet on center and within fifteen (15) feet of the site boundary.

RESPONSE. Verizon Wireless will comply with this provision if it is determined that an insufficient buffer strip exists.

Sec.8-353(6)(d)(ii) Unless existing vegetation provides a buffer strip the width of the required fall zone, calculated as the equivalent of the facility's height, the planning board shall require that all property lines along roadways or visible to existing abutting or nearby buildings (within one-fourth (1/4) mile radius) be landscaped as follows: with at least one (1) row of deciduous trees, not less than two and one-half (2 1/2) inch to three (3) inch caliper measured three (3) feet above grade, and spaced not more than twenty (20) feet apart and within twenty-five (25) feet of the site boundary.

RESPONSE. Verizon Wireless will comply with this provision if it is determined that an insufficient buffer strip exists.

Sec.8-353(6)(d)(iii) Unless existing vegetation provides a buffer strip the width of the required fall zone, calculated as the equivalent of the facility's height, the planning board shall require that all property lines along roadways or visible to existing abutting or nearby buildings (within one-fourth (1/4) mile radius) be landscaped as follows: with at least one (1) row of evergreen trees at least four (4) to five (5) feet in height when planted, and spaced not more than fifteen (15) feet apart within forty (40) feet of the site boundary.

RESPONSE. Verizon Wireless will comply with this provision if it is determined that an insufficient buffer strip exists.

Sec.8-353(6)(d)(iv) In lieu of the foregoing, the planning board may determine that the existing vegetation must be supplemented to meet an equivalent means of achieving the desired goal of minimizing the visual impact. To assist in making that determination, the planning board may require the applicant to provide a visual impact analysis by a qualified professional.

RESPONSE. Verizon Wireless will comply with this provision if it is determined that an insufficient buffer strip exists.

CUBE-SS4C215DN2 (w/Proposed Layout)

- Power & Battery Cabinet
- 73”H x 32”W x 32”D
- No AC Load Center*
- 750W, -48VDC Heat Exchanger
- 15 RU Power & Equipment
- 23” Rack Mount (Front & Rear)
- GE Infinity S (400A, AC5, 52 Dist.)
- Optional 50A Rectifiers (max. 8)
- 14 x 20A Bullet Breakers Included
- Battery Compartment – 3 Tray
- Batteries ordered separately
- SAFT Tel.X 180 # 80-94693-02
- 740 lbs. Cabinet only
- 1811 lbs. with SAFT NiCDs
- 4 to 6 Weeks Shipment ARO
- Match with CUBE-PM63912UN1



Equipment Cabinet: CUBE-SS4C215DN2	
RU Position	Item
1	Cable Space
2	Cable Space
3	Cable Space
4	GE Infinity S
5	GE Infinity S
6	GE Infinity S
7	GE Infinity S
8	GE Infinity S
9	GE Ininity S
10	GE Infinity S Rectifiers (1,2,3,4)
11	GE Infinity S Rectifiers (5,6,7,8)
12	GE Infinity S Distribution (1-26)
13	GE Infinity S Distribution (26-52)
14	Empty Space
15	Empty Space
	Battery compartment
1	SAFT 80-94693-02
2	SAFT 80-94693-02
3	SAFT 80-94693-02

*Cabinet shown with optional load center.
(CUBE SS4C215DB3)



CUBE-PM63912UN1 (w/Proposed Layout)

- Equipment Only
- 73”H x 32”W x 32”D
- No Load Center
- 10K BTU Air Conditioner
- 39 Rack Units (RU)
- 23” Rack Mount (Front & Rear)
- Site Alarm Aggregation Panel
- Optional RayCap OVPs 2260-10
- 10’ Cable Kit (Power to RayCap)
- Optional 6 port Roxtec KFO seal for hybrid cables.
- Optional Fiber Distribution Panels
- DC Powered LED Cabinet Lights
- Upgraded External Ground Points
- Enhanced Cable Ingress
- 4 to 6 Weeks Shipment ARO
- Match with CUBE-SS4C215DN1



Equipment Cabinet: CUBE-PM63912UN1	
RU Position	Item
1	Cable Space
2	Cable Space
3	Cable Space
4	RayCap OVP #1
5	RayCap OVP #1
6	RayCap OVP #1
7	RayCap OVP #1
8	OVP FDP #1
9	Empty Space
10	RayCap OVP #2
11	RayCap OVP #2
12	RayCap OVP #2
13	RayCap OVP #2
14	OVP FDP#2
15	Empty Space
16	RayCap OVP #3
17	RayCap OVP #3
18	RayCap OVP #3
19	RayCap OVP #3
20	OVP FDP #3
21	Empty Space
22	Empty Space
23	BBU #1
24	BBU #1
25	Empty Space
26	Empty Space
27	7705
28	7705
29	Empty Space
30	Empty Space
31	Empty Space
32	Empty Space
33	Empty Space
34	Empty Space
35	Empty Space
36	Empty Space
37	Empty Space
38	Empty Space
39	Empty Space

Charles Universal Broadband Enclosure (CUBE)

PM63912UN3 General Description and Installation

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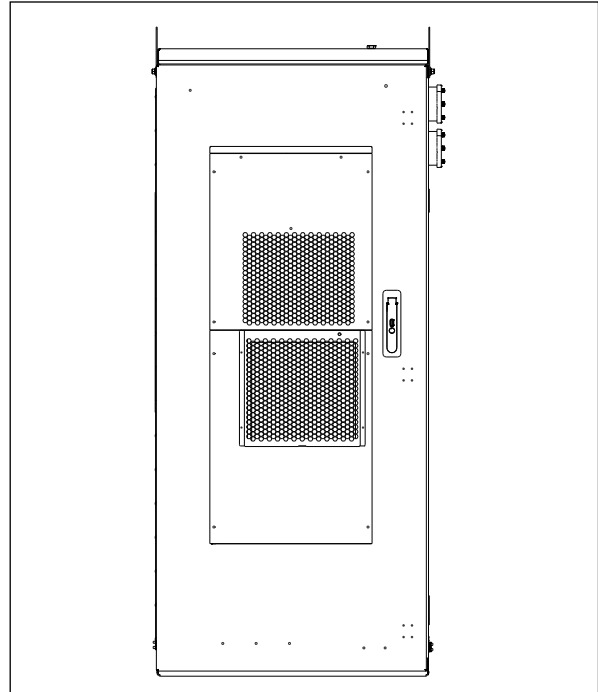


Figure 1 Closed Front View of the CUBE-PM63912UN3

1. GENERAL INTRODUCTION

1.1 Document Purpose

This document provides general information for the Charles Industries' Universal Broadband Enclosure CUBE-PM63912UN3 that is not covered in the pad-mount family document LT-PM63912XXX. A front view of the CUBE is shown in Figure 1.

-NOTE-

Hereafter, the CUBE-PM63912UN3 Charles Universal Broadband Enclosure will be referred to as PM63912UN3 or "CUBE."

2. PRODUCT DESCRIPTION

This section contains information regarding the CUBE's physical design and interior components. Figure 2 shows the main components of the CUBE-PM63912UN3. Additional equipment in this CUBE is the -48VDC power system with controller. Additional features include:

- One 15A GFCI outlet
- 10000 BTU air conditioner
- Removable panel
- GE Infinity S power system with controller
- 39RU of 23" front and rear rack space

2.1 Wiring the CUBE

After the CUBE is properly mounted in the desired location, install power, ground, and battery connections. Always ground the equipment first, before making any other connections. A basic electrical diagram is shown in Figure 3

2.2 Making the Ground Connections

Two 2x8 position ground bars are provided in the equipment compartment. These ground bars should be used for all grounding of internal equipment. There are four external studs with nuts, two on the rear, one on the left side and one on the right of the cabinet that are used for terminating a double-hole lug for earth ground or site ground wire.

2.2.1 AC Voltage Connections

The installer provides the AC voltage connections per company practices and in accordance with all local codes. The two LED lights are wired to the door switch and light when the door is open. The 15A GFCI receptacle is to be connected to a 120VAC power source 15A disconnect. Refer to the electrical diagram in Figure 3.

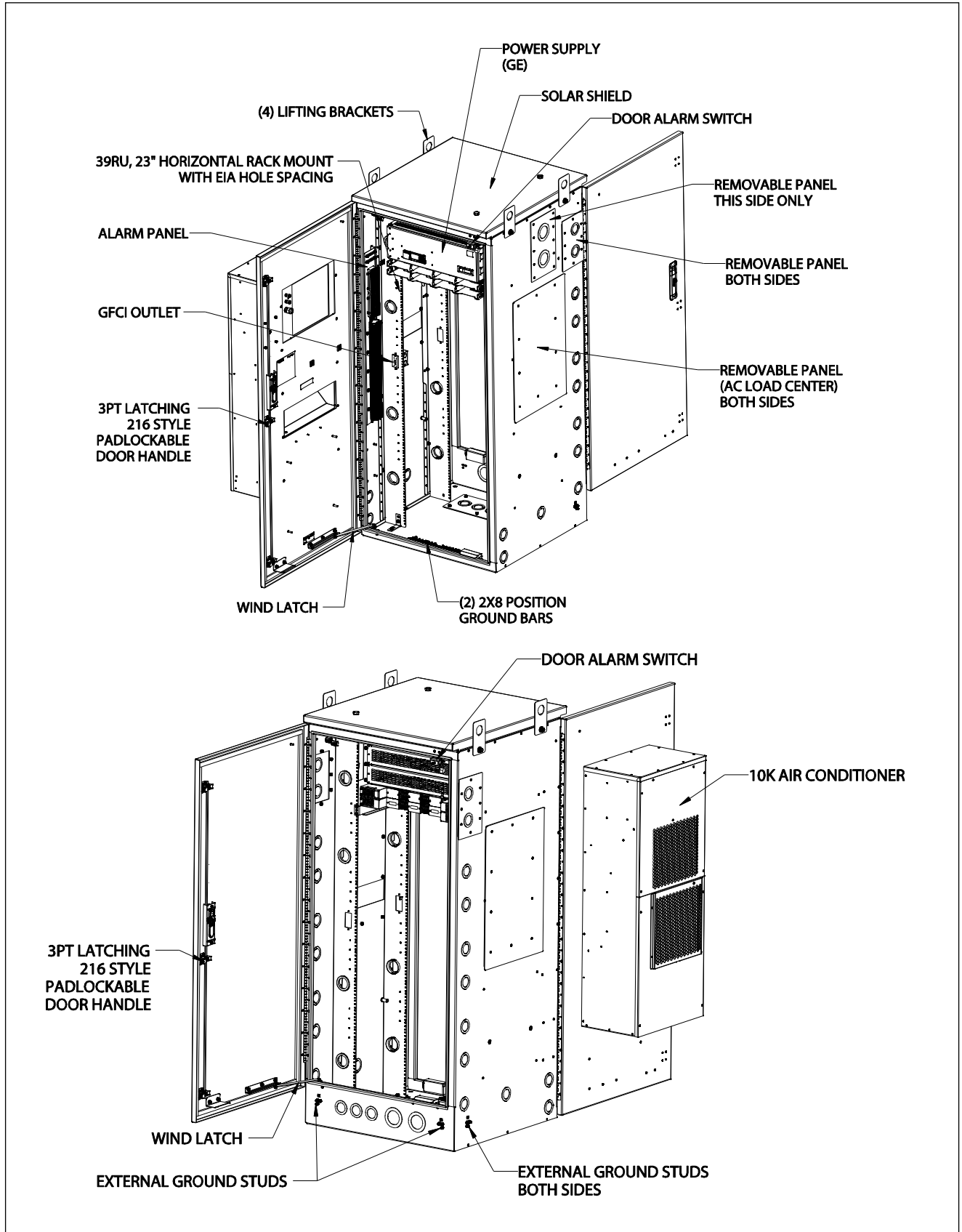


Figure 2 CUBE-PM63912UN3 Components

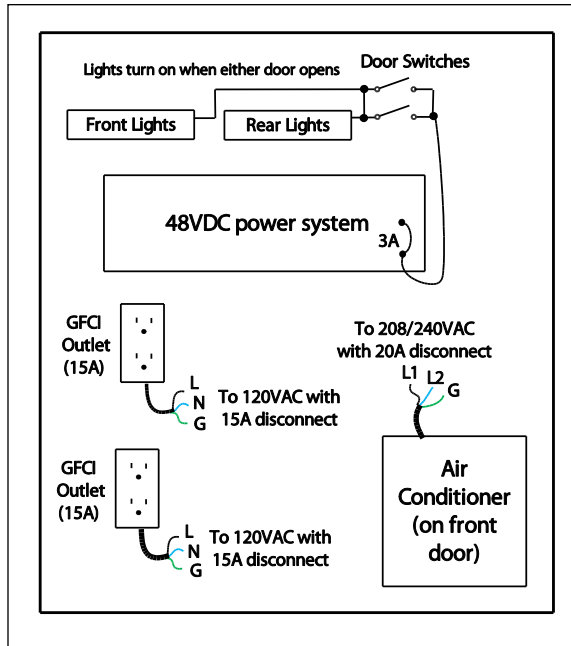


Figure 3 Electrical Diagram

2.3 48VDC Power System

The GE Infinity S power system has 8 slots with a primary 48VDC output. The system also has a secondary +24VDC output, which is obtained by using 48 to +24VDC converters (not provided). The power system is also equipped with an alarm cable.

-48VDC distribution includes one 3A load breaker for the two fans (DAC) in the battery compartment and a 15A for the air conditioner.

Refer to the GE power supply documentation located inside the CUBE for information regarding the power supply operation and configuration

2.3.1 Air Conditioner

The 10000 BTU air conditioner is equipped with a 2000W heater and runs off 220VAC. The air conditioner must be connected to a 208/240VAC power source with a 20A disconnect.

The factory default cooling cycle is set at 30°C and can be changed through the controller, which is accessed by removing the eight T25 security torx screws on the top front panel of the unit. The heating cycle is factory set at 5°C.

For further information, refer to the air conditioner documentation that ships with the CUBE.

2.3.2 Overheat Alarm

The thermostat acts as an overheat alarm, and has an adjustable range of +20°C to +80°C. The thermostat provides a normally closed connection and will open if the inside temperature exceeds the thermostat setting. These connections are not terminated by the factory.

2.3.3 LED Lights

The front and rear door switches have two sets of contacts. The primary side contacts are used for turning the front and rear LED lights on and off. The LED lights are connected in parallel so that

opening either door will turn on the lights. The secondary set of contacts is used for intrusion alarms, which are covered in the alarm terminal panel section.

2.3.4 Alarm Terminal Panel

There is a 32-position alarm terminal panel where all alarm wiring is connected. Refer to Table 2 for a diagram of all alarms and block connections.

2.3.5 Fiber and Copper Entry

Cable entry is accommodated through multiple knockouts on the sides, rear and bottom of the cabinet. Each side of the cabinet has a removable Roxtec cable entry port panel, a removable Roxtec KFO cable entry panel, and ten 1.75"/2.50" knockouts along the back edge and bottom. The opposite side has the same configuration except that it does not have the removable Roxtec cable entry port panel. There are three 1.75"/2.50" and two 3.60"/2.5" knockouts along the bottom back under the removable rear panel, and five cable ports in a removable panel in the bottom of the cabinet.

2.4 Verifying the Installation

Verify that earth ground and all grounding and bonding is complete and functional. After verifying that all installer connections are secure and complete, apply AC voltage.

3. TECHNICAL ASSISTANCE AND REPAIR SERVICE

For questions on product repair or if technical assistance is required, contact Charles Technical Support at:

847-806-8500

800-607-8500

847-806-8556 (FAX)

techserv@charlesindustries.com (email)

http://www.charlesindustries.com/main/tech_support.htm

4. WARRANTY & CUSTOMER SERVICE

Charles Industries, Ltd. offers a one-year warranty on the CUBE product. The Charles warranty is limited to the operation of the CUBE hardware as described in this documentation and does not cover equipment which may be integrated by a third party. The terms and conditions applicable to any specific sale of product shall be defined in the resulting sales contract. For questions on warranty or other customer service assistance, contact your Charles Customer Service Representative at:

847-806-6300

847-806-6653 (FAX)

mktserv@charlesindustries.com (email)

http://www.charlesindustries.com/main/telecom_sales_support.htm

5. SPECIFICATIONS

5.1 Regulatory Specifications

- Designed to be compliant to GR-487.

5.2 Physical Specifications

The physical specifications are shown in Table 2.

Category	
Dimensions and weight	74"Hx32"W x 32"D 535 lbs. as shipped
23" Equipment Rack Space and Hole Spacing	68" (39 RU) EIA spacing with tapped 12-24
Color	Off-White
Material	.125" Welded Aluminum
Maximum Heat Dissipation	2900W
Electric Outlet	One 15A GFCI outlet
10000 BTU Air Conditioner with 2000W Heater	Dantherm #1A/CT-B1000
-48VDC power system with controller	GE Infinity S: NES4824-23-AC5-PS8-DC1E
Bonding and Grounding	Two 2x8 position ground bars
Cable Entrance	Refer to Section 2.4
Operating Temp. Range, Inside Enclosure	-40° to +149°F, -40° to 65°C
Operating Temp. Range, Outside Enclosure	-40° to +115°F, -40° to 46°C
Humidity	0 to 95% (non-condensing)
Altitude	Up to 2000 meters (6560')

Table 1 – PM63912UN3 Physical Specifications

6. MACRO ALARM TERMINAL WIRING TABLE

Alarm Number	Pos 1	LABEL	Pos 2	LABEL	Description	Wire 1	Wire 2
CC1	1	CC1	2	RET1	Battery Discharge	WHT	WHT/BLK
CC2	3	CC2	4	RET2	Commercial Power Failure		
CC3	5	CC3	6	RET3	Door Intrusion	WHT	ORG
CC4	7	CC4	8	RET4	Tech on Site		
CC5	9	CC5	10	RET5	Generator Failure		
CC6	11	CC6	12	RET6	Generator Low Fuel		
CC7	13	CC7	14	RET7	Generator Running		
CC8	15	CC8	16	RET8	High Temp	WHT	GRN
CC9	17	CC9	18	RET9	Inverter Failure		
CC10	19	CC10	20	RET10	Multiple Rectifier Failure	WHI/RED	RED/WHT
CC11	21	CC11	22	RET11	Rectifier Failure	GRN/WHT	RED/GRN
CC12	23	CC12	24	RET12	Smoke/Fire		
CC13	25	CC13	26	RET13	Smoke/Fire Detector Failure		
CC14	27	CC14	28	RET14	Surge Suppressor Lightning Arrestor		
CC15	29	CC15	30	RET15	Tower Light		
CC16	31	CC16	32	RET16	Tower Light Beacon		
CC17	33	CC17	34	RET17	Tower Light Strobe		
CC18	35	CC18	36	RET18	Tower Light Power Failure		
CC19	37	CC19	38	RET19	Tower Light (side)		
CC20	39	CC20	40	RET20	Converter Failure		
CC21	41	CC21	42	RET21	Tower Mounted Amplifier		
CC22	43	CC22	44	RET22	Explosive Gas		
CC23	45	CC23	46	RET23	2 nd HVAC Compressor Run		
CC24	47	CC24	48	RET24	Heat Exchanger Failure	WHT	GRN
CC25	49	CC25	50	RET25	HVAC-2 Failure		
CC26	51	CC26	52	RET26	Low Temp		
CC27	53	CC27	54	RET27	AC Power Failure	ORG/RED	RED
CC28	55	CC28	56	RET28	Microwave Major = Critical		
CC29	57	CC29	58	RET29	Microwave Minor = Minor		
CC30	59	CC30	60	RET30	RRH Power Failure		
CC31	61	CC31	62	RET31	RRH Humidity Alarm		
CC32	63	CC32	64	RET32	RRH Intrusion Alarm		

Table 2 Macro Alarm Wiring

Key:

Base CUBE

GE Infinity A Power System Alarms:





