

September 29, 2011

BY EMAIL & FEDEX

Ms. Linda Roberts
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: Docket 411 - D&M Plan
New Cingular Wireless PCS, LLC ("AT&T")
1363 Boston Post Road, Old Saybrook, Connecticut

Dear Ms. Roberts:

On behalf of New Cingular Wireless PCS, LLC ("AT&T"), please accept for review and Council approval this Development Management Plan ("D&M Plan") filing for the captioned Facility as approved in Docket 411.

Tower, Compound & Other Equipment

Enclosed are fifteen (15) sets of 11" x 17" construction drawings being filed in accordance with the Council's Decision and Order dated April 28, 2011. Two full-sized sets of the construction drawings are also enclosed. The D&M Plan incorporates a 100' monopole as provided for in the Siting Council's Order No. 1 in this Docket. AT&T will mount twelve (12) panel antennas on T-arms at a centerline height of 97' as depicted on the construction drawings prepared by CHA. These include three (3) antennas to be used for Long Term Evolution ("LTE") next generation mobile wireless broadband technology. The proposed D&M Plan also includes construction plans for the site clearing, drainage, and erosion and sedimentation control measures consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control as amended.

As discussed in the attached letter from the project civil engineers CHA, the D&M Plan shifts the location of the equipment compound 38' to the southwest. This shift eliminates the need to clear trees for the development of the Facility in keeping with the Siting Council's Order No. 2 in this Docket. Furthermore, the shift in the location of the equipment compound shortens the planned access road by 38' and increases the Facility's setback distance from the eastern property boundary.

Attached please also find a geotechnical study as well as a structural design report for the tower and foundation. Specifications for AT&T's antennas and generator are provided as well.

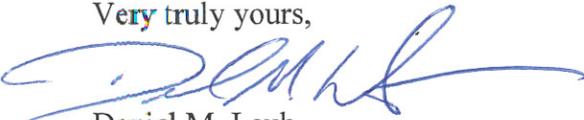
Required Notifications

In accordance with the provisions of RCSA Section 16-50j-77, AT&T hereby notifies the Council of its intention to begin site work immediately after Council approval of the D&M Plan. Construction of the tower and other site improvements will commence upon issuance of a local building permit. The supervisor for all construction related matters on this project is Bryon Morawski of SAI. Mr. Morawski is located at 500 Enterprise Drive, Suite 3A, Rocky Hill, CT 06067 and can be reached by telephone at (860) 513-7223.

We respectfully request that this matter be included on the Council's next available agenda for review and approval.

Thank you for your consideration of the enclosed.

Very truly yours,



Daniel M. Laub

Enclosures

cc: Michael A. Pace, First Selectman, Town of Old Saybrook
Michele Briggs, AT&T
Christopher B. Fisher, Esq.
David Vivian, SAI
Bryon Morawski, SAI

Attachment A



July 12, 2011

New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, CT 06067

RE: Site Relocation
Site: Old Saybrook
1363 Boston Post Road
Old Saybrook, CT 06475
CHA # 18301-1036-43000

As requested in the decision and order, the possibility of relocating the compound to avoid tree removal was investigated while preparing the D&M plans. Avoiding removal of trees 6" in diameter or larger was achieved by shifting the compound 38' Southwest. Also, the shift increased the setback distance from Eastern property boundary from 93' to 125' and the proposed section of new gravel road decreased from 382' to 344'.

If you have any questions, comments or need further information, please do not hesitate to contact our office.

Very truly yours,

CLOUGH HARBOUR & ASSOCIATES LLP

A handwritten signature in blue ink that reads "Paul Lusitani".

Paul Lusitani
Project Engineer

W:\SAI Cingular\18301\Sites\1036 Old Saybrook 2597\CD\OLD SAYBROOK-SITE RELOCATION.doc

Attachment B

DR. CLARENCE WELTI, P.E., P.C.

GEOTECHNICAL ENGINEERING

227 Williams Street • P.O. Box 397

Glastonbury, CT 06033

June 1, 2011

(860) 633-4623 / FAX (860) 657-2514

Mr. David Vivian
New Cingular Wireless PCS, LLC
500 Enterprise Drive, Suite 3A
Rocky Hill, CT 06067

**Ref: Geotechnical Study for Proposed AT&T Cingular Wireless Facility, Site# SR2597
1363 Boston Post Road, Old Saybrook, CT**

Dear Mr. Vivian:

1.0 Herewith is the data from the test boring taken at the above referenced site. One boring was drilled at the proposed tower center to a depth of 31.5 feet. The boring location is shown on the attached plan. *The boring was drilled by Clarence Welti Associates, Inc. and sampling was conducted by this firm solely to obtain indications of subsurface conditions as part of a geotechnical exploration program. No services were performed to evaluate subsurface environmental conditions.*

2.0 The **Subject Project** will include the construction of a monopole type cell tower, with a height of 100 feet and possible future extension to 120 feet.

3.0 The **Soils Cross Section** from the boring is generally as follows:

FILL; fine to coarse SAND, some Silt, trace Gravel to 4 feet, medium compact

Fine to coarse SAND, trace Silt to 15 feet, loose to medium compact

Fine to coarse SAND, little Gravel, trace Silt to 31.5+ feet, medium compact

3.1 The **Ground Water Table** was at 5 feet below the existing grade at the completion of the boring.

4.0 In general the criteria for tower support is that the foundation capacity would exceed the loads, which might collapse the tower. **Movements from strains in the soils should be limited to differential settlement (or lateral movements of less than 1/2").**

5.0 The pole foundation type could be one of the following:

1. A large mat designed to prevent overturning by gravity resistance of the mat.

2. A caisson foundation

5.1 In **alternate (1)** the weight of the mat would provide the required resistance to over turning. The foundation can be placed on the natural inorganic soils at least 4 feet below the finished grades. There should be a minimum 6" layer of 3/8" crushed stone beneath the foundation. The allowable loading on the crushed stone atop the prepared natural soils can be 4,000 psf.

5.2 In **summary** the following soil properties and design values would apply to alternate 1.

Soil Property/Parameter	Value
Soil Unit Weight (Backfill)	125 pcf
Unit Weight of Natural Soils	125 pcf
Unit Weight of Submerged Natural Soils	65 pcf
Angle of Internal Friction of Natural Sand (ϕ)	34°
Cohesion	0
Pull Out Angle from Vertical	30°
Sliding Coefficient	0.6
Frost Protection Depth (by code)	3.5 feet
Allowable Soil Bearing Pressure crushed stone atop the natural inorganic soils	4,000 psf

5.3 **Alternate 2** would be a caisson foundation. The caisson shall have a minimum embedment depth of 15 feet. The actual depth is to be determined by the designer to provide the required resistance to uplift and overturning forces as well as maintaining the allowable lateral deflection**. The following is summary of design parameters for the caisson foundation:

Parameter	Value
Allowable Bearing for Caisson at 15+ feet	3 Tons/sf
Allowable Side Resistance (friction) at 4 to 10+ feet below grade	200 psf

Unit Weight of Natural Soils	125 pcf
Unit Weight of Submerged Natural Soils	65 pcf
Angle of internal friction of Natural Soils	34 °
Lateral Loading (at rest coefficient)	0.45
Lateral Loading (passive coefficient)	3.5
Soil Modulus Parameter (k) ***	from 4 to 30 feet - 40 pci ***

* These parameters should be used to evaluate lateral deflection at top of caisson.

** Typically this value would be about ½"

*** This is the value used in the equation $E_s = kx$. This value can be used to determine lateral deflection in the L-Pile computer program.

6.0 Regarding **Controlled Fill** (if required) the material shall conform to the following or be 3/8" crushed stone.

Percent Passing	Sieve Size
100	3.5"
50 - 100	3/4"
25 - 85	No.4

The fraction, passing the No.4 sieve shall have less than 15% passing the No. 200 sieve.

All backfill and fill must be compacted to at least 95% of modified optimum density in accordance with ASTM D-1557.

The 3/8" crushed stone could be placed in lifts up to 1 feet thick. It should be compacted with a minimum of 4 passes with a 750 lb compactor.

7.0 The equipment building foundations could be designed with foundations design parameters, cited in section 5.2 above.

8.0 The soils at the subject site are generally in OSHA class C which would require excavations that are in excess of 5 feet to have slopes which are less than 34° (i.e., 1.5H/1.0V).

9.0 This report has been prepared for specific a application to the subject project in accordance with generally accepted soil and foundation engineering practices. No other warranty, express or implied, is made. In the event that any changes in the nature, design and location of structures are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

The analyses and recommendations submitted in this report are based in part upon data obtained from referenced explorations. The extent of variations between explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.

Dr. Clarence Welti, P.E., P.C., should perform a general review of the final design and specifications in order that geotechnical design recommendations may be properly interpreted and implemented as they were intended.

If you have any questions please call me.

Very truly yours,

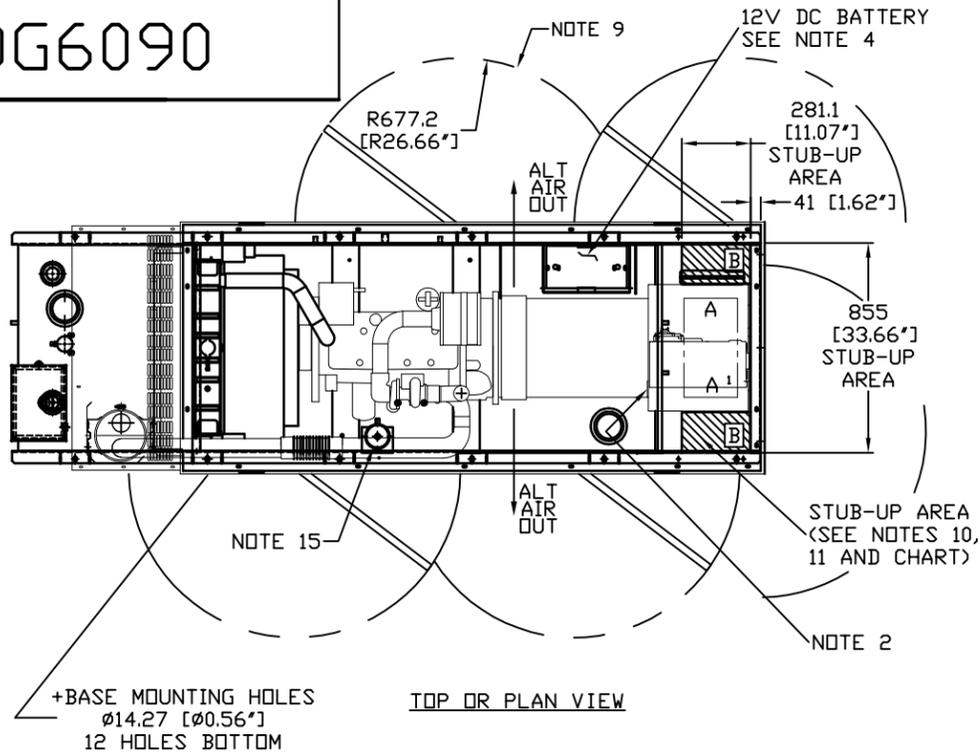
A handwritten signature in cursive script that reads "Max Welti".

Max Welti, P. E.

CLARENCE WELTI ASSOC., INC. P.O. BOX 397 GLASTONBURY, CONN 06033				CLIENT		PROJECT NAME PROPOSED TOWER SITE SR2597	
				SAI		LOCATION 1363 BOSTON POST ROAD, OLD SAYBROOK, CT	
	AUGER	CASING	SAMPLER	CORE BAR.	OFFSET	SURFACE ELEV.	HOLE NO. B-1
TYPE	HSA		SS		LINE & STA.	GROUND WATER OBSERVATIONS	
SIZE I.D.	3.75"		1.375"		N. COORDINATE	AT 5.0 FT. AFTER 0 HOURS	START DATE 5/27/11
HAMMER WT.			140lbs		E. COORDINATE	AT FT. AFTER HOURS	FINISH DATE 5/27/11
HAMMER FALL			30"				
DEPTH	SAMPLE			A	STRATUM DESCRIPTION + REMARKS	ELEV.	
	NO.	BLOWS/6"	DEPTH				
0	1	9-16-15-13	0.00'-2.00'		DARK BR.FINE-CRS.SAND, SOME SILT, TRACE GRAVEL - FILL		
	2	8-7-7-9	2.00'-4.00'				
5	3	9-8-9-11	4.00'-6.00'		BR.FINE-CRS.SAND, TRACE SILT & GRAVEL	4.0	
10	4	3-2-3	10.00'-11.50'				
15	5	1-3-5	15.00'-16.50'		GREY/BR.FINE-CRS.SAND, LITTLE GRAVEL, TRACE SILT	15.0	
20	6	4-6-9	20.00'-21.50'				
25	7	7-8-9	25.00'-26.50'				
30	8	7-9-9	30.00'-31.50'				
35					BOTTOM OF BORING @ 31.5'	31.5	
LEGEND: COL. A:RECOVERY " SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%						DRILLER: BROMLEY INSPECTOR:	
						SHEET 1 OF 1	HOLE NO. B-1

Attachment C

OG6090



RECOMMENDED FUEL/ELECTRICAL STUB-UPS
(SEE TOP VIEW)

DESCRIPTION	INSIDE BASE
AC LOAD LEAD CONDUIT (RIGHT)	A
(LEFT)	A'
ADDITIONAL STUB UP AREA FOR 120VAC GFCI OUTLET, (STANDARD BLOCK HEATER, BATTERY CHARGER, AND OTHER 120 VAC OPTIONS).	B

NOTE:
FUEL SYSTEM SET UP WITH OUTSIDE STUB UPS (SEE RIGHT SIDE VIEW). UNITS SOLD WITH OPTIONAL BASE TANK HAVE FUEL SYSTEM PLUMBED TO TANK.

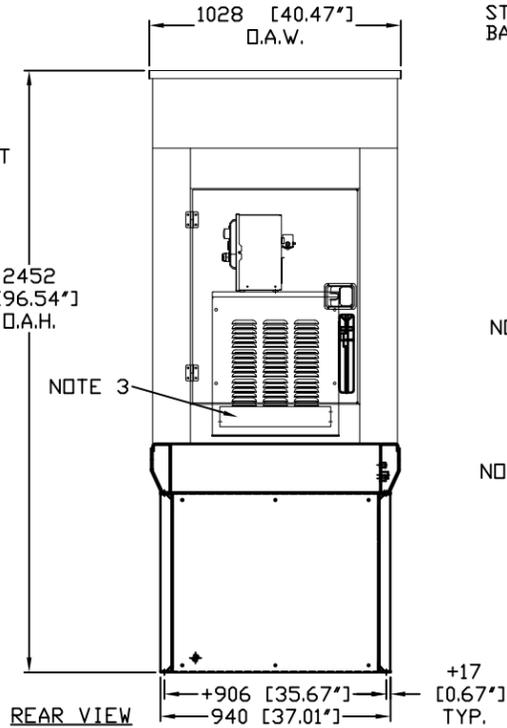
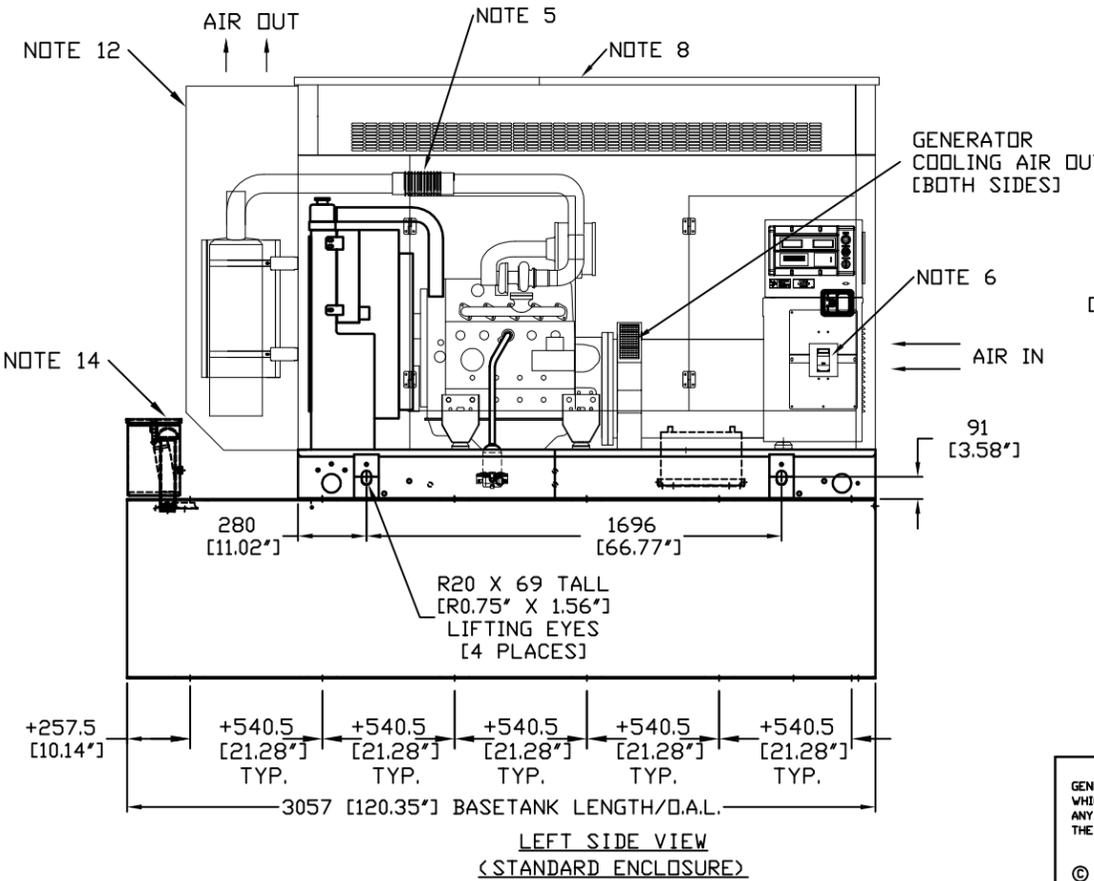
ENGINE SERVICE CONNECTIONS

FUEL INLET = 1/4" NPT COUPLING
FUEL RETURN = 1/4" NPT COUPLING
RADIATOR DRAIN = 1/4" NPT COUPLING
OIL DRAIN = 1/2" NPT COUPLING

NOTES:

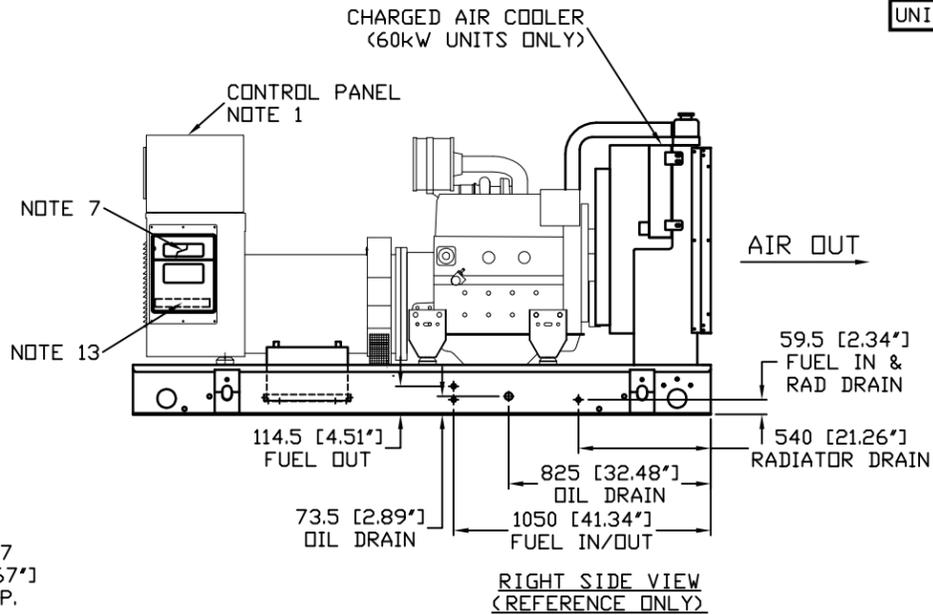
- CONTROL PANEL MAY BE ROTATED 180° IN EITHER DIRECTION.
- STANDARD 20A GFCI DUPLEX OUTLET - 120VAC REQUIRED
- CONNECTION POINTS FOR CONTROL WIRES PROVIDED IN AC CONNECTION PANEL.
- 12 VOLT NEGATIVE GROUND SYSTEM.
- 2.5" I. D. FLEX EXHAUST, STANDARD WITH COMPARTMENT UNITS, OPTIONAL WITHOUT.
- MAIN LINE CIRCUIT BREAKER (MLCB) AND AC LOAD LEAD CONNECTION.
- MANUAL BOX.
- LEVEL 2A ACOUSTIC COMPARTMENT.
- DOORS MUST BE OPENED 90 DEGREES TO BE REMOVED.
- STUB-UPS:
STANDARD BASE TANK REQUIRES ALL STUB-UPS TO BE OUTSIDE OR IN THE REAR TANK STUB-UP AREA.
- 'A' OR 'A1' IS THE STUB UP AREA UNDER THE MLCB, DEPENDING ON CIRCUIT BREAKER LOCATION. AREA B IS STUB UP AVAILABLE FOR UNITS WITH A BASE TANK.
- SEE DRAWING OF 0755 FOR DUCT REMOVAL. REMOVAL OF FRONT DUCT WILL PROVIDE ACCESS TO MUFFLER FOR SERVICING.
- AT&T SPECIAL OUTPUTS TERMINAL BLOCK LOCATION BEHIND COVER.
- FUEL FILL W/ 5 GALLON SPILL FILL.
- STANDARD 120VAC ENGINE BLOCK HEATER.

+ NOTE: DIMENSIONS ARE FOR BASE MOUNTING HOLE LOCATIONS.

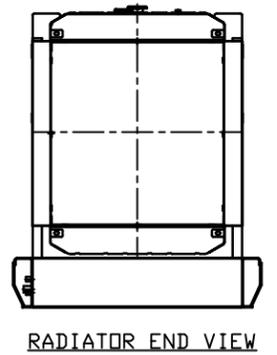


WEIGHT DATA
UNIT: 998 kg [2200 lbs]
STEEL ENCLOSURE: 378 kg [835 lbs]
BASE TANK W/O FUEL (EST.): 640 kg [1411 lbs]

BASE TANK DATA
TOTAL TANK CAPACITY: 794 L [210 GAL]
USEABLE TANK CAPACITY: 757 L [200 GAL]
UL #142 LISTED



UNITS: mm [INCHES]



GENERAC POWER SYSTEMS OWNS THE COPYRIGHT OF THIS DRAWING WHICH IS SUPPLIED IN CONFIDENCE AND MUST NOT BE USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT IS SUPPLIED WITHOUT THE EXPRESS WRITTEN CONSENT OF GENERAC POWER SYSTEMS.

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EST. WT.

FINAL WT.

DO NOT SCALE

ALL DIMENSIONS AND TOLERANCING PER ASME Y14.5M-1994

UNLESS OTHERWISE SPECIFIED:

ALL XX DIM. --- ±.4 MM
ALL XX.X DIM. --- ±.4 MM
ALL XX.XX DIM. --- ±.15 MM
ALL ANGLES ---- ±1°

DRAWING TITLE

INSTALL AT&T 50/60kW
W/LVL 2A & 210 GAL TANK

MATERIAL

DWN WMF

DATE 6/13/07

MFG

DATE

CHKD

DATE

APPD

DATE

RELEASED FOR PRODUCTION

BY

DATE

GENERAC POWER SYSTEMS
Waukesha

P.O. BOX 8
WAUKESHA, WIS. 53187

FILE NAME OG6090-A.DWG

SIZE B

SCALE 1=40

FIRST USE AT&T 50KW

DWG NO.

OG6090

REV

A

Attachment D

P90-15-XLH-RR Dual Broadband Antennas

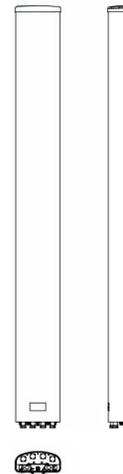
POLARIZATION: Dual Linear $\pm 45^\circ$
 FREQUENCY (MHz): 698-894, 1710-2170
 HORIZONTAL BEAM WIDTH ($^\circ$): 90, 90
 GAIN (dBi/dBd): 14.5/12.4 16.3/14.2
 TILT: 0-10, 0-8
 LENGTH: 72"

ELECTRICAL SPECIFICATIONS*

Frequency range (MHz)	698-894		1710-2170		
	698-806	806-894	1710-1880	1850-1990	1900-2170
Frequency band (MHz)	698-806	806-894	1710-1880	1850-1990	1900-2170
Gain (dBi/dBd)	13.8/11.7	14.5/12.4	15.7/13.6	16.0/13.9	16.3/14.2
Polarization	Dual Linear +/- 45		Dual Linear +/- 45		
Nominal Impedance (Ω)	50		50		
VSWR	< 1.5:1		< 1.5:1		
Horizontal beam width, -3 dB ($^\circ$)	86	84	88	80	80
Vertical beam width, -3 dB ($^\circ$)	14	12	7	6.5	6
Electrical down tilt ($^\circ$)	0 to 10		0 to 8		
Side lobe suppression, vertical 1st upper (dB)	> 16	> 16	> 18	> 17	> 15
Isolation between inputs (dB)	> 30	> 30	> 30	> 30	> 30
Inter band Isolation (dB)	> 40		> 40		
Tracking, horizontal plane $\pm 60^\circ$ (dB)	< 2	< 2	< 2	< 2	< 2
First null fill (dB)					
Vertical beam squint ($^\circ$)	< 0.8	< 0.8	< 0.5	< 0.5	< 0.5
Front to back ratio (dB) $180^\circ \pm 30^\circ$ copolar	25	25	> 23	> 27	> 30
Front to back ratio (dB) $180^\circ \pm 30^\circ$ total power	22	22	> 22	> 22	> 22
Cross polar discrimination (XPD) 0° (dB)	> 15	> 15	> 15	> 15	> 15
Cross polar discrimination (XPD) $\pm 60^\circ$ (dB)	10	10	10	10	10
Far field coupling					
IM3, 2xTx@43dBm (dBc)	-153		-153		
IM7, 2xTx@43dBm (dBc)					
Power handling, average per input (W)	500		300		
Power handling, average total (W)	1000		600		

MECHANICAL SPECIFICATIONS*

Connector	4 x 7/16 DIN Female, Extended Shank
Connector position	Bottom
Dimensions, HxWxD, mm (ft)	1829 x 305 x 186 (72" x 12" x 7.3")
Mounting	Pre-mounted Tilt Brackets
Weight, with brackets, kg (lbs)	29 (64)
Weight, without brackets, kg (lbs)	24 (53)
Wind load, frontal/lateral/rear side 42 m/s Cd=1.6 (N)	1380
Maximum operational wind speed, m/s (mph)	100 (45)
Survival wind speed, m/s (mph)	150 (67)
Lightning protection	DC Ground
Operating Temperature	-40 to +70C
Radome material	PVC
Packet size, HxWxD, mm (ft)	2225 x 400 x 225 (87" x 16" x 10")
Radome colour	Light Grey
Shipping weight, kg (lbs)	34 (75)
RET	iRET AISGv1.1, MET and AISGv2.0 Available
Brackets	7256.00, 7454.00, 2210.00



*All specifications subject to change without notice. Please contact your Powerwave representative for complete performance data.

ANTENNA PATTERNS*

For detailed patterns visit <http://www.powerwave.com/rpa/>.