

December 5, 2014

VIA EMAIL & OVERNIGHT DELIVERY

Hon. Robert Stein, Chairman
and Members of the Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: D&M Clarification: Antenna Model
Connecticut Siting Council Docket No. 436
Certificate Holder Message Center Management, Inc. (MCM)
Telecommunications Facility in East Hartford, Connecticut

Dear Chairman Stein and Members of the Siting Council:

This letter, its attachments and fifteen copies of same are respectfully submitted on behalf of Message Center Management ("MCM") the Certificate holder and New Cingular Wireless PCS, LLC ("AT&T") for the facility approved in Docket 436 located at 465 Hills Street in East Hartford ("Facility"). As you will recall, on November 6, 2014 the Council approved a one-year extension of time to January 25, 2016 for AT&T to install its antennas and equipment. This installation is anticipated to be completed in 2015.¹ Prior to AT&T's installation please accept this letter and attachment as a clarification to the Development and Management Plan ("D&M Plan") that was approved by the Council on April 17, 2014.

The original D&M Plan submitted on September 17, 2013 provided a specification sheet for CommScope SBNH-1D6565C antennas. This model is being phased out and will no longer be available on the market after December 2014. AT&T will instead be installing CCI HPA-65R-BUU-H8 antennas. Included as Attachment A is a specification sheet of this revised model showing the similar dimensions to the previously planned model. The new antenna model will be approximately 4 inches shorter, just 3 inches wider and less than 3/8" greater in depth. Mounting will be similar to the previously proposed antennas and the antennas will not extend beyond the monopine camouflage branching as per the latest revised D&M plan on file with the Council. As you may recall additional branching was already included on this tower as per the April 11, 2014 submission.

Please note the structural calculations prepared by Vector Engineering dated March 18, 2014 ("Structural Calculations") and included in the April 11, 2014 submission ("Revised D&M Submission") and on file with the Council already accounted for the CCI HPA-65R-BUU-H8 antennas which are approximately 16.2 pounds heavier than the older CommScope models. The change in antenna models was not confirmed by AT&T at the time of the Revised D&M Submission. However, anticipating the potential

¹ Antennas and equipment of the East Hartford Fire Department are already in place and on air.

deployment of these heavier antennas, MCM proactively requested the inclusion of the CCI HPA-65R-BUU-H8 antennas in the Structural Calculations. AT&T has since determined to deploy these antennas. Accordingly, the structural capacity of the tower has already been calculated as sufficient for the installment of the CCI HPA-65R-BUU-H8 antennas. Included as Attachment B please find a power density analysis confirming AT&T's facility will be compliant with Federal requirements.

No changes or modifications to the approved tower location, compound, fencing, monopine branching, access drive or features other than those noted above are proposed. While we do not believe this is a change of any significance to the approved Facility, we submit this letter and enclosures by way of update and notification to the Siting Council in keeping with R.C.S.A. Sec. 16-50j-77(2). Given the minor nature of this change we respectfully request a staff approved amendment to the D&M Plan for the Facility.

Should the Siting Council or Staff have any questions regarding the foregoing, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in black ink, appearing to read "Daniel M. Laub", is written over a horizontal line.

Daniel M. Laub
Enclosures

cc: Mayor Marcia Leclerc, East Hartford
Maria Scotti, MCM
Virginia King, MCM
Christopher Gelinias, MCM
John Lawrence, Centerline Communications
Michele Briggs, AT&T
Christopher B. Fisher, Esq.

ATTACHMENT A

HexPORT Multi-Band ANTENNA

Model HPA-65R-BUU-H8



The CCI Hexport Multi-Band Antenna Array is an industry first 6-port antenna with full WCS Band Coverage. With four high band ports and two low band ports, our hexport antenna is ready for 4X4 high band MIMO.

Modern networks demand high performance, consequently CCI has incorporated several new and innovative design techniques to provide an antenna with excellent side-lobe performance, sharp elevation beams, and high front to back ratio.

Multiple networks can now be connected to a single antenna, reducing tower loading and leasing expense, while decreasing deployment time and installation cost.

Full band capability for 700 MHz , Cellular 850 MHz, PCS 1900 MHz, AWS 1710/2170 MHz and WCS 2300 MHz coverage in a single enclosure.

Hexport Multi-Band Antenna Array

Benefits

- ◆ Includes WCS Band
- ◆ Reduces tower loading
- ◆ Frees up space for tower mounted E-nodes
- ◆ Single radome with six ports
- ◆ All Band design simplifies radio assignments
- ◆ Sharp elevation beam eases network planning

Features

- ◆ High Band Ports include WCS Band
- ◆ Four High Band ports with two Low Band ports in one antenna
- ◆ Sharp elevation beam
- ◆ Excellent elevation side-lobe performance
- ◆ Excellent MIMO performance due to array spacing
- ◆ Excellent PIM Performance
- ◆ A multi-network solution in one radome

Applications

- ◆ 4x4 MIMO on High Band and 2x2 MIMO on Low Band
- ◆ Adding additional capacity without adding additional antennas
- ◆ Adding WCS Band without increasing antenna count





HexPORT Multi-Band ANTENNA

Model HPA-65R-BUU-H8

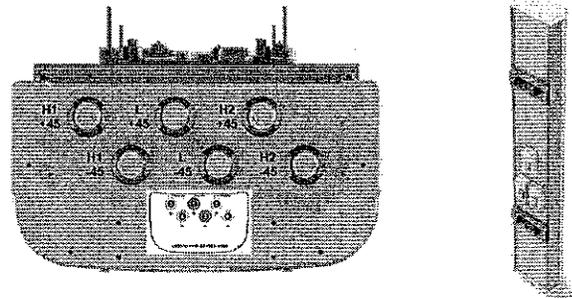
HPA-65R Multi-Band Antenna

Electrical Specifications

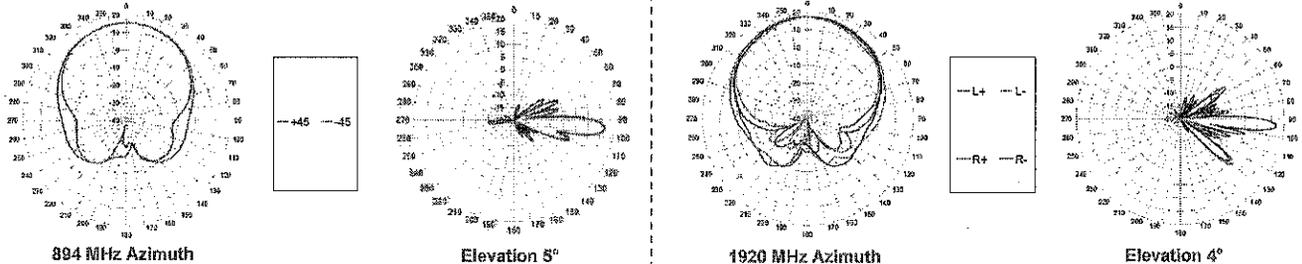
Frequency Range	2 X Low Band Ports which cover the full range from 698-894 MHz		4 X High Band Ports which cover the full range from 1710-2360 MHz			
	698-806 MHz	824-894 MHz	1850-1990 MHz	1710-1755/2110-2170 MHz	2305-2360 MHz	
Gain	15.3 dBi	16.2 dBi	17.1 dBi	16.3 dBi	17.4 dBi	17.7 dBi
Azimuth Beamwidth (-3dB)	65°	61°	62°	68°	64°	60°
Elevation Beamwidth (-3dB)	10.1°	8.4°	5.6°	6.2°	5.0°	4.5°
Electrical Downtilt	2° to 10°	2° to 10°	0° to 8°	0° to 8°	0° to 8°	0° to 8°
Elevation Sidelobes (1st Upper)	< -17 dB	< -17 dB	< -19 dB	< -18 dB	< -18 dB	< -17 dB
Front-to-Back Ratio @180°	> 29 dB	> 28 dB	> 35 dB	> 35 dB	> 35 dB	> 35 dB
Front-to-Back Ratio over ± 20°	> 28 dB	> 27 dB	> 28 dB	> 27 dB	> 28 dB	> 28 dB
Cross-Polar Discrimination (at Peak)	> 24 dB	> 20 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB
Cross-Polar Discrimination (at ± 60°)	> 16 dB	> 14 dB	> 18 dB	> 18 dB	> 18 dB	> 18 dB
Cross-Polar Port-to-Port Isolation	> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB	> 25 dB
VSWR	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1
Passive Intermodulation (2x20W)	≤ -150dBc	≤ -150dBc	≤ -150dBc	≤ -150dBc	≤ -150dBc	≤ -150dBc
Input Power	500 Watts CW	500 Watts CW	300 Watts CW	300 Watts CW	300 Watts CW	300 Watts CW
Polarization	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°	Dual Pol 45°
Input Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground

Mechanical Specifications

Dimensions (LxWxD)	92.4 x 14.8 x 7.4 inches (2348 x 376 x 189 mm)
Survival Wind Speed	> 150 mph
Front Wind Load	332 lbs (1479 N) @ 100 mph (161 kph)
Side Wind Load	193 lbs (860 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	13.0 ft ² (1.2 m ²)
Weight (without Mounting)	68 lbs (31 kg)
RET System Weight	5.0 lbs (2.25 kg)
Connector	6; 7-16 DIN female long neck
Mounting Pole	2-5 inches (5-12 cm)



Antenna Patterns*



*Typical antenna patterns. For detail information on antenna pattern, please contact us at info@cciproducts.com. All specifications are subject to change without notice.



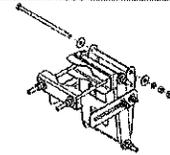
HexPORT Multi-Band ANTENNA

Model HPA-65R-BUU-H8

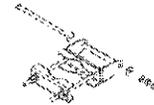
Ordering Information:

HPA-65R-BUU-H8	8 Foot Hexport Antenna with 65° Azimuth Beamwidth with Factory Installed RET Actuators (3)
HPA-65R-BUU-H8-K	Complete Kit with Antenna, Factory Installed Actuators (3) and M03 Mounting Bracket
BSA-RET200	RET Actuator
BSA-M03	Mounting Bracket (Top & Bottom) with 0° through 10° Mechanical tilt Adjustment

M03 Top Mounting Bracket



M03 Bottom Mounting Bracket



RET [Remote Electrical Tilt] System

General Specification

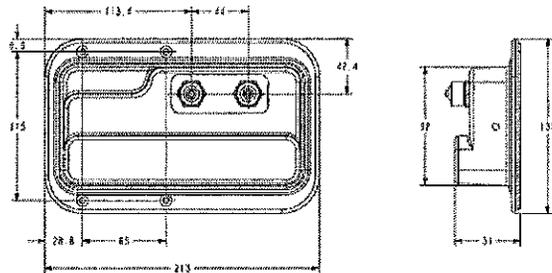
Part Number	BSA-RET200
Protocols	AISG 2.0
Adjustment Cycles	>10,000 cycles
Tilt Accuracy	±0.1°
Temperature Range	-40°C to +70°C

Electrical Specification

Interface Signal	Data dc
Input Voltage Range	10-30 Vdc, Specifications at +24 VDC
Current consumption during tilting	120mA at Vin = 24V
Current consumption idle	55mA at Vin=24V
Hardware Interface	AISG - RS 485 A/B
Input Connector	1x8-pin Daisy Chain In Male
Output Connector	1x8-pin Daisy Chain Out Female

Mechanical Specification and Dimensions

Housing Material	ASA / ABS / Aluminum
Dimensions (H x W x D)	8 x 5 x 2 inches (213 x 135 x 51 mm)
Weight	1.5 lbs (0.68 kg)



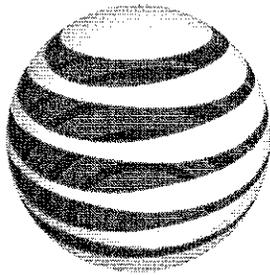
Standards Compliance

Safety	EN 60950-1, UL 60950-1
Emission	EN 55022
Immunity	EN 55024
Environmental	IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-5, IEC 60068-2-6, IEC 60068-2-11, IEC 60068-2-14, IEC 60068-2-18, IEC 60068-2-27, IEC 60068-2-29, IEC 60068-2-30, IEC 60068-2-52, IEC 60068-2-64, GR-63-CORE 4.3.1, EN60529 IP24

Regulatory Certification

AISG, FCC Part 15 Class B, CE, CSA US

ATTACHMENT B



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

Radu Alecsandru
RF Engineer
at&t mobility

Transmission Mode	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
AT&T UMTS	100	800 Band	1	500	0.0180	0.5867	3.06
AT&T UMTS	100	1900 Band	1	500	0.0180	1.0000	1.80
AT&T LTE	100	700 Band	1	500	0.0180	0.4667	3.85
AT&T LTE	100	1900 Band	1	500	0.0180	1.0000	1.80
AT&T LTE	100	2300 Band	1	500	0.0180	1.0000	1.80
Total							12.3%