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Hartford, CT 06103-3597
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Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

May 30, 2012

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

**Re: Notice of Exempt Modification – Antenna Swap
1191 Terryville Avenue, Bristol, Connecticut**

Dear Ms. Roberts:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains six (6) wireless telecommunications antennas at the 107-foot and 117-foot levels inside the existing 120-foot flagpole tower at the above-referenced address. The flagpole tower is owned by Cellco and was approved by the Council in 2007 (Docket No. 318). Cellco now intends to replace all of its antennas with three (3) model DBXNH-6565B-VM dual band antennas at the 117-foot level and three (3) model BXA-70063-6CF LTE antennas at the 107-foot level. Cellco also intends to install six (6) additional coax cables inside the flagpole tower. Attached behind Tab 1 are the specifications for the replacement antennas.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Arthur J. Ward, Mayor for the City of Bristol. A copy of this letter is also being sent to Pequabuck Golf Club of Bristol, Inc., the owner of the property on which the tower is located.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing tower. Cellco’s replacement antennas will be located at the 107-foot and 117-foot levels within the flagpole tower.

ROBINSON & COLE LLP

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2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, will not require the extension of the site boundaries.

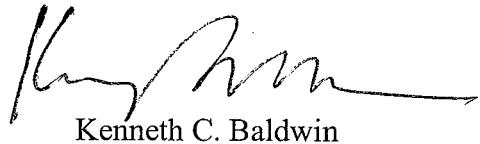
3. The proposed modifications will not increase noise levels at the facility by six decibels or more.

4. The operation of the replacement antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) adopted safety standard. An updated power density table for Cellco's modified facility is included behind Tab 2.

Also attached is a Structural Certification Letter confirming that the tower and foundation can support Cellco's proposed facility modifications. (See Tab 3).

For the foregoing reasons, Cellco respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,



Kenneth C. Baldwin

Enclosures

Copy to:

Arthur J. Ward, Bristol Mayor
Pequabuck Golf Club of Bristol, Inc.
Sandy M. Carter



Product Specifications

COMMSCOPE®



Andrew Solutions

DBXNH-6565B-VM

DualPol® Dual Band Teletilt® Antenna, 698–896 and 1710–2180 MHz, 65° horizontal beamwidth, RET compatible

- Ultra wideband capability for LTE 700 MHz and 850 MHz cellular technology
- Interleaved dipole technology providing for attractive, low wind load mechanical package
- The RF connectors are IP67 rated and the radome is IP56 rated

Electrical Specifications

Frequency Band, MHz

	698–806	806–896	1710–1880	1850–1990	1920–2180
Gain, dBi	15.2	16.0	19.2	19.1	18.2
Beamwidth, Horizontal, degrees	67	65	62	61	64
Beamwidth, Vertical, degrees	12.5	10.8	5.5	5.1	4.8
Beam Tilt, degrees	0–10	0–10	0–6	0–6	0–6
USLS, typical, dB	15	15	15	15	15
Front-to-Back Ratio at 180°, dB	25	25	32	34	32
Front-to-Back Total Power at 180° ± 20°, dB	20	20	28	28	25
CPR at Boresight, dB	24	20	25	22	20
CPR at Sector, dB	10	8	10	10	8
Isolation, dB	30	30	30	30	30
Isolation, Intersystem, dB	30	30	30	30	30
VSWR Return Loss, dB	1.5:1 14.0	1.5:1 14.0	1.5:1 14.0	1.5:1 14.0	1.5:1 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150	-150	-150	-150
Input Power per Port, maximum, watts	400	400	300	300	300
Polarization	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm				
Lightning Protection	dc Ground				

Mechanical Specifications

Color Radome Material	Light gray Fiberglass, UV resistant
Connector Interface Location Quantity	7-16 DIN Female Bottom 4
Wind Loading, maximum	617.7 N @ 150 km/h 138.9 lbf @ 150 km/h
Wind Speed, maximum	241.0 km/h 149.8 mph

Dimensions

Depth	181.0 mm 7.1 in
Length	1847.00 mm 72.72 in
Width	301.00 mm 11.85 in
Net Weight	21.00 kg 46.30 lb

Remote Electrical Tilt (RET) Information

Model with Factory Installed AISG 1.1 Actuator DBXNH-6565B-R2M

Model with Factory Installed AISG 2.0 Actuator DBXNH-6565B-A2M

Regulatory Compliance/Certifications

Product Specifications

COMMSCOPE®



DBXNH-6565B-VTM

Agency

RoHS 2002/95/EC
China RoHS SJ/T 11364-2006
ISO 9001:2008

Classification

Compliant by Exemption
Above Maximum Concentration Value (MCV)
Designed, manufactured and/or distributed under this quality management system



Included Products

DB380 — Pipe Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Used for wide panel antennas. Includes two clamp sets.

DB5083 — Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Includes a heavy-duty, galvanized steel downtilt mounting bracket assembly and associated hardware. This kit is compatible with the DB380 pipe mount kit for panel antennas that are equipped with two mounting brackets.

BXA-70063-6CF-EDIN-X

X-Pol | FET Panel | 63° | 14.5 dBd

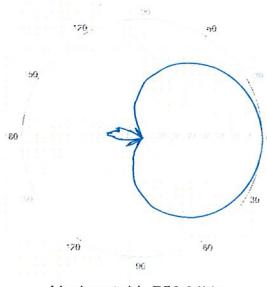
Replace "X" with desired electrical downtilt.

Antenna is also available with NE connector(s). Replace "EDIN" with "NE" in the model number when ordering.



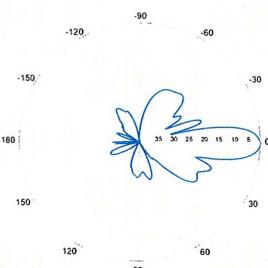
Electrical Characteristics		696-900 MHz	
Frequency bands		696-806 MHz	806-900 MHz
Polarization			±45°
Horizontal beamwidth		65°	63°
Vertical beamwidth		13°	11°
Gain		14.0 dBd (16.1 dBi)	14.5 dBd (16.6 dBi)
Electrical downtilt (X)		0, 2, 3, 4, 5, 6, 8, 10	
Impedance		50Ω	
VSWR		≤1.35:1	
Upper sidelobe suppression (0°)		-18.3 dB	-18.2 dB
Front-to-back ratio (+/-30°)		-33.4 dB	-36.3 dB
Null fill		5% (-26.02 dB)	
Isolation between ports		<-25 dB	
Input power with EDIN connectors		500 W	
Input power with NE connectors		300 W	
Lightning protection		Direct Ground	
Connector(s)		2 Ports / EDIN or NE / Female / Center (Back)	
Mechanical Characteristics			
Dimensions Length x Width x Depth		1804 x 285 x 132 mm	71.0 x 11.2 x 5.2 in
Depth with z-brackets		172 mm	6.8 in
Weight without mounting brackets		7.9 kg	17 lbs
Survival wind speed		> 201 km/hr	> 125 mph
Wind area	Front: 0.51 m ² Side: 0.24 m ²	Front: 5.5 ft ² Side: 2.6 ft ²	
Wind load @ 161 km/hr (100 mph)	Front: 759 N Side: 391 N	Front: 169 lbf Side: 89 lbf	
Mounting Options		Part Number	Fits Pipe Diameter
3-Point Mounting & Downtilt Bracket Kit	36210008	40-115 mm 1.57-4.5 in	6.9 kg 15.2 lbs
Concealment Configurations	For concealment configurations, order BXA-70063-6CF-EDIN-X-FP		

BXA-70063-6CF-EDIN-X



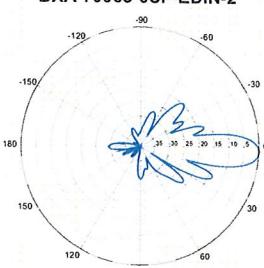
Horizontal | 750 MHz

BXA-70063-6CF-EDIN-0

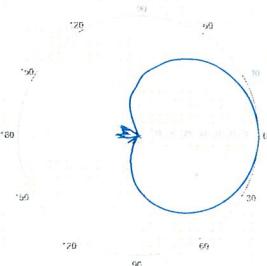


0° | Vertical | 750 MHz

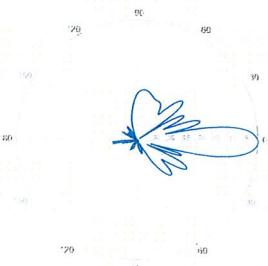
BXA-70063-6CF-EDIN-2



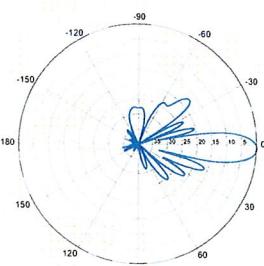
2° | Vertical | 750 MHz



Horizontal | 850 MHz



0° | Vertical | 850 MHz

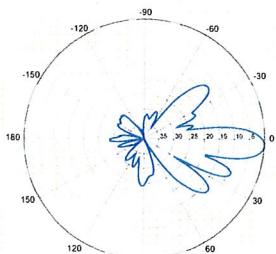


2° | Vertical | 850 MHz

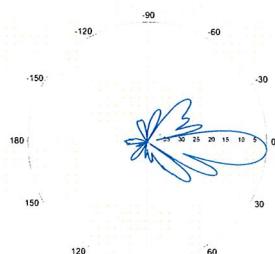
Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

BXA-70063-6CF-EDIN-X

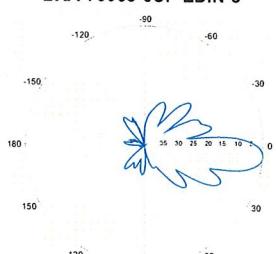
X-Pol | FET Panel | 63° | 14.5 dBd

BXA-70063-6CF-EDIN-3


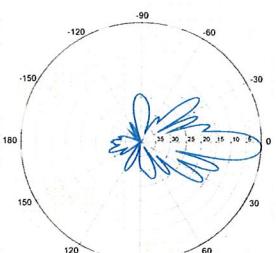
3° | Vertical | 750 MHz

BXA-70063-6CF-EDIN-4


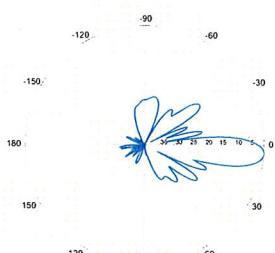
4° | Vertical | 750 MHz

BXA-70063-6CF-EDIN-5


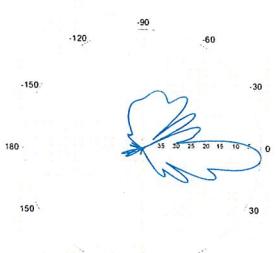
5° | Vertical | 750 MHz



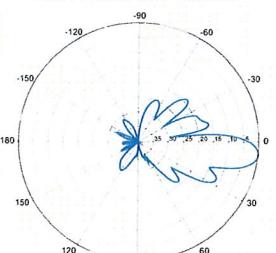
3° | Vertical | 850 MHz



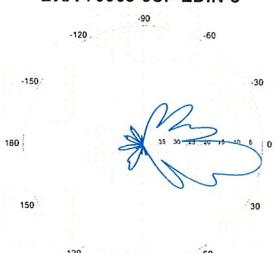
4° | Vertical | 850 MHz



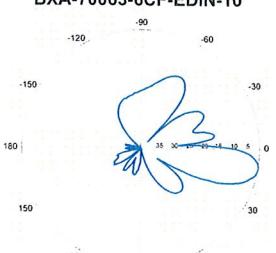
5° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-6


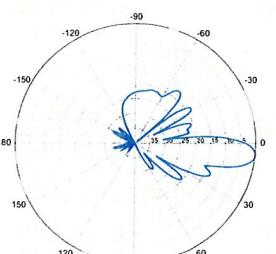
6° | Vertical | 750 MHz

BXA-70063-6CF-EDIN-8


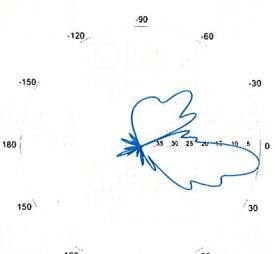
8° | Vertical | 750 MHz

BXA-70063-6CF-EDIN-10


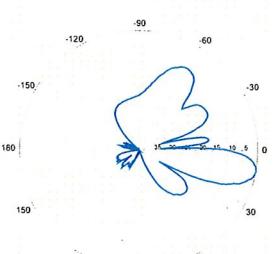
10° | Vertical | 750 MHz



6° | Vertical | 850 MHz



8° | Vertical | 850 MHz



10° | Vertical | 850 MHz

Quoted performance parameters are provided to offer typical or range values only and may vary as a result of normal manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to product may be made without notice.

General Power Density

Site Name: BRISTOL W, CT
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
(MHz)			(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW PCS	1970	11	258	2838	117	0.0746	1.0	7.46%
VZW Cellular	869	9	262	2358	117	0.0619	0.5793333333	10.69%
VZW AWS	2145	1	674	674	107	0.0212	1.0	2.12%
VZW 700	698	1	856	856	107	0.0269	0.4653333333	5.78%
Total Percentage of Maximum Permissible Exposure					26.04%			

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz

mW/cm^2 = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used.

May 18, 2012

Mr. Aleksey Tyurin
Verizon Wireless
99 East River Drive
East Hartford, CT 06108

Re: Structural Certification Letter ~ Antenna Upgrade

*Verizon Wireless Site Ref ~ Bristol West
1191 Terryville Ave.,
Bristol, CT 06010*

CENTEK Project No. 12001.CO48

Dear Mr. Tyurin,

Centek Engineering, Inc. has reviewed the proposed Verizon Wireless antenna upgrade at the above referenced site. The purpose of the review is to determine the structural adequacy of the existing 120-ft +/- tall host flagpole to support the proposed modified antenna configuration. The existing installation consists of two (2) arrays of three (3) antennas each mounted within the existing flagpole. The review considered the effects of wind load, dead load, ice load and seismic forces in accordance with TIA/EIA-222-F and the 2005 Connecticut State Building Code as amended by the 2009 CT State Supplement.

The existing, proposed and future Verizon Wireless loads considered in this analysis consist of the following:

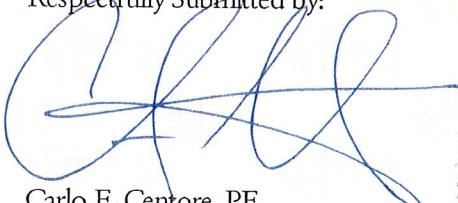
- **Verizon (Existing to Remain):**
Coax: Twelve (12) 1-5/8-in dia. coaxial cables routed within the existing flagpole.
- **Verizon (Existing to Remove):**
Antennas: Two (2) Antel BXA-185085-12CF and one (1) Antel LPA-185063/12CF panel antennas mounted within the existing flagpole with a RAD center elevation of 117-ft +/- AGL.
- **Verizon (Existing to Remove):**
Antennas: Three (3) Antel BXA-80063-6CF panel antennas mounted within the existing flagpole with a RAD center elevation of 107-ft +/- AGL.
- **Verizon (Proposed):**
Antennas: Three (3) Andrew DBXNH-6565B-VM panel antennas mounted within the existing flagpole with a RAD center elevation of 117-ft +/- AGL.
Coax: Six (6) 1-5/8-in dia. coaxial cables routed within the existing flagpole.
- **Verizon (Proposed):**
Antennas: Three (3) Antel BXA-70063-6CF panel antennas mounted within the existing flagpole with a RAD center elevation of 107-ft +/- AGL.

CENTEK engineering, INC.
Structural Certification Letter
Verizon Wireless ~ Bristol West
1191 Terryville Ave.,
Bristol, CT 06010

The proposed antenna installation meets the requirements of the TIA/EIA-222-F Standard basic wind speed (fastest mile) of 80 mph for Hartford County which controls over the 2005 Connecticut State Building Code considering the basic wind speed (fastest mile) of 77.5 mph for Bristol (equivalent to 95 mph 3-second gust wind speed as required in Appendix K of the Connecticut supplement per Table 1609.3.1). Our findings are based on the assumption that the hosting structure, all structural members and appurtenances were properly designed, detailed, fabricated, installed and have been properly maintained since erection.

In conclusion, the proposed Verizon antenna upgrade will not negatively impact the structural integrity of the existing host flagpole. If there are any questions regarding this matter, please feel free to call.

Respectfully Submitted by:



Carlo F. Centore, PE
Principal ~Structural Engineer

