ROBINSON & COLE LLP

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts

July 3, 2013

Melanie Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **EM-VER-029-120106- 161 Pinney Street, Colebrook, Connecticut**
EM-VER-125-120423- 7 Surdan Mountain, Sharon, Connecticut
EM-VER-040-120420- 116 Newgate Road, East Granby, Connecticut
EM-VER-065-120319B- 22 Welsh Road, Hartland, Connecticut
EM-VER-039-120514- 35 Old Route 44, Eastford, Connecticut
EM-VER-065-120319A- 350 Hartland Road, Hartland, Connecticut
EM-VER-066-120117- 64 Hungerford Lane, Harwinton, Connecticut

Completion of Construction Activity

Dear Ms. Bachman:

The purpose of this letter is to notify the Siting Council that construction activity associated with the above-referenced Cellco Partnership d/b/a Verizon Wireless telecommunications facilities has been completed.

If you have any questions or need any additional information regarding this facility please do not hesitate to contact me.

Sincerely,

Kenneth C. Baldwin

Copy to:
Sandy M. Carter

12321674-v1

ROBINSON & COLE LLP

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Also admitted in Massachusetts

May 3, 2013

Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **EM-VER-167-121024 – 50 Woodfield Road, Woodbridge, Connecticut**
EM-VER-168-120216 – 186 Minortown Road, Woodbury, Connecticut
EM-VER-031-120514 – 7 Surden Mountain Road, Cornwall, Connecticut
EM-VER-039-120514 – 35 Old Route 44, Eastford, Connecticut
EM-VER-069-120607 – 1375 North Road, Killingly, Connecticut

Completion of Construction Activity

Dear Ms. Bachman:

The purpose of this letter is to notify the Siting Council that construction activity associated with the above-referenced Cellco Partnership d/b/a Verizon Wireless telecommunications facilities has been completed.

If you have any questions or need any additional information regarding this facility please do not hesitate to contact me.

Sincerely,

Kenneth C. Baldwin

Copy to:
Sandy M. Carter

12218601-v1

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

June 1, 2012

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103

RE: **EM-VER-039-120514-** Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 35 Old Route 44, Eastford, Connecticut.

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- Any deviation from the proposed modification as specified in this notice and supporting materials with Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Not less than 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration;

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated May 14, 2012. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Very truly yours,

Linda Roberts

Linda Roberts
Executive Director

LR/CDM/jbw

c: The Honorable Allan E. Platt, First Selectman, Town of Eastford
Sue Yorgensen, Planning Agent, Town of Eastford
Cordless Data Transfer

CONNECTICUT SITING COUNCIL

ROBINSON & COLE LLP

EM-VER-039-120514

KENNETH C. BALDWIN

280 Trumbull Street
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May 10, 2012

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

Re: **Notice of Exempt Modification – Antenna Swap**
35 Old Route 44, Eastford, Connecticut

Dear Ms. Roberts:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains twelve (12) wireless telecommunications antennas at a centerline height of 193 feet above-ground level on an existing 190-foot guyed-lattice tower at the above-referenced address. The tower is owned by Cordless Data Transfer. The Council approved Cellco's shared use of this tower in 2000. Cellco now intends to replace all of its antennas with six (6) model LPA-80080-6CF cellular antennas; three (3) model BXA-171085-8BF PCS antennas; and three (3) model BXA-70063-6CF LTE antennas, all at the same centerline height. Cellco also intends to install six (6) coax cable diplexers on its antennas mounting frame. Attached behind Tab 1 are the specifications for the replacement antennas and cable diplexers.

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 Allen E. Platt, First Selectman of the Town of Eastford. A copy of this letter is also being sent to Priscilla Armitage, 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 and diplexers will be located at the same 193-foot level on the tower.

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. A cumulative power density table for Cellco's modified facility is included behind Tab 2.

Also attached is a Structural Analysis 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:
Allen E. Platt, Eastford First Selectman
Priscilla Armitage
Sandy M. Carter

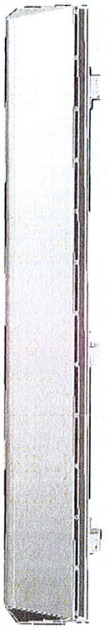
Amphenol ANTENNA SOLUTIONS

LPA-80080-6CF-EDIN-X

V-Pol | Log Periodic | 80° | 14.0 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.

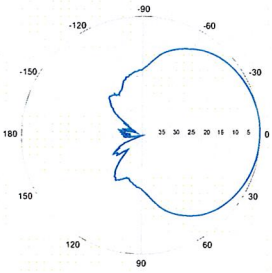


Electrical Characteristics	
Frequency bands	806-960 MHz
Polarization	Vertical
Horizontal beamwidth	80°
Vertical beamwidth	10°
Gain	14.0 dBd (16.1 dBi)
Electrical downtilt (X)	0, 2, 4, 5, 6, 8, 10
Impedance	50Ω
VSWR	≤1.4:1
Upper sidelobe suppression (0°)	-22.6 dB
Null fill	10% (-20.0 dB)
Input power	500 W
Lightning protection	Direct Ground
Connector(s)	1 Port / EDIN or NE / Female / Center (Back)

Mechanical Characteristics		
Dimensions Length x Width x Depth	1800 x 140 x 335 mm	70.9 x 5.5 x 13.2 in
Depth of antenna with z-bracket	375 mm	14.8 in
Weight without mounting brackets	9.5 kg	21.0 lbs
Survival wind speed	> 201 km/hr	> 125 mph
Wind area	Front: 0.25 m² Side: 0.61 m²	Front: 2.7 ft² Side: 6.6 ft²
Wind load @ 161 km/hr (100 mph)	Front: 415 N Side: 878 N	Front: 93 lbf Side: 198 lbf

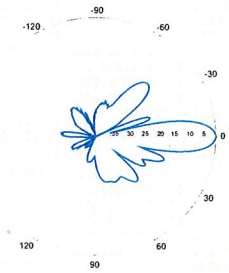
Mounting Options	Part Number	Fits Pipe Diameter	Weight
3-Point Mounting & Downtilt Bracket Kit (0-20°)	21700000	50-102 mm 2.0-4.0 in	11 kg 25 lbs
Lock-Down Brace	If the lock-down brace is used, the maximum diameter of the mounting pipe is 88.9 mm or 3.5 in.		

LPA-80080-6CF-EDIN-X



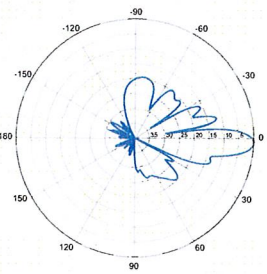
Horizontal | 750 MHz

LPA-80080-6CF-EDIN-0



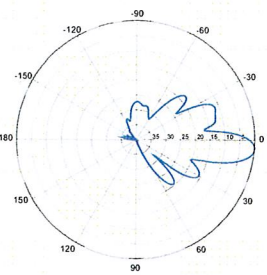
0° | Vertical

LPA-80080-6CF-EDIN-2



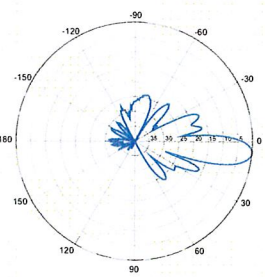
2° | Vertical

LPA-80080-6CF-EDIN-4



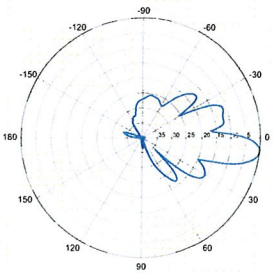
4° | Vertical

LPA-80080-6CF-EDIN-5



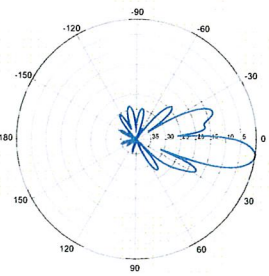
5° | Vertical

LPA-80080-6CF-EDIN-6



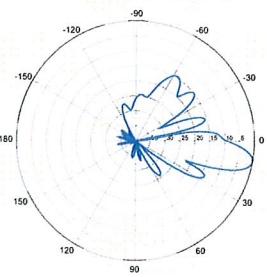
6° | Vertical

LPA-80080-6CF-EDIN-8



8° | Vertical

LPA-80080-6CF-EDIN-10



10° | Vertical

BXA-171085-8BF-EDIN-X

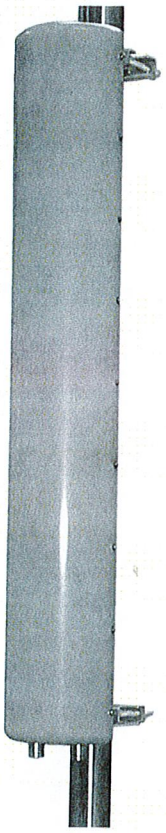
Replace "X" with desired electrical downtilt.

X-Pol | FET Panel | 85° | 16.4 dBi

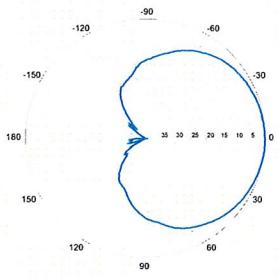
Electrical Characteristics	1710-2170 MHz		
Frequency bands	1710-1880 MHz	1850-1990 MHz	1920-2170 MHz
Polarization	±45°	±45°	±45°
Horizontal beamwidth	88°	85°	80°
Vertical beamwidth	7°	7°	7°
Gain	13.5 dBd / 15.6 dBi	13.9 dBd / 16.0 dBi	14.3 dBd / 16.4 dBi
Electrical downtilt (X)	0, 2, 4		
Impedance	50Ω		
VSWR	≤1.5:1		
First upper sidelobe	< -17 dB		
Front-to-back isolation	> 30 dB		
In-band isolation	> 28 dB		
IM3 (20W carrier)	< -150 dBc		
Input power	300 W		
Lightning protection	Direct Ground		
Connector(s)	2 Ports / EDIN / Female / Bottom		
Operating temperature	-40° to +60° C / -40° to +140° F		

Mechanical Characteristics		
Dimensions Length x Width x Depth	1232 x 154 x 105 mm	48.5 x 6.1 x 4.1 in
Depth with t-brackets	133 mm	5.2 in
Weight without mounting brackets	4.8 kg	10.5 lbs
Survival wind speed	296 km/hr	184 mph
Wind area	Front: 0.19 m² Side: 0.14 m²	Front: 2.0 ft² Side: 1.5 ft²
Wind load @ 161 km/hr (100 mph)	Front: 281 N Side: 223 N	Front: 63 lbf Side: 50 lbf

Mounting Options	Part Number	Fits Pipe Diameter	Weight
2-Point Mounting Bracket Kit	26799997	50-102 mm 2.0-4.0 in	2.3 kg 5 lbs
2-Point Mounting & Downtilt Bracket Kit	26799999	50-102 mm 2.0-4.0 in	3.6 kg 8 lbs
Concealment Configurations	For concealment configurations, order BXA-171085-8BF-EDIN-X-FP		

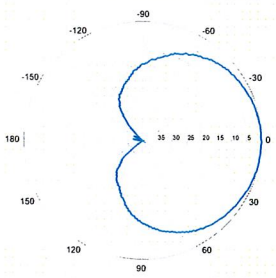


BXA-171085-8BF-EDIN-X



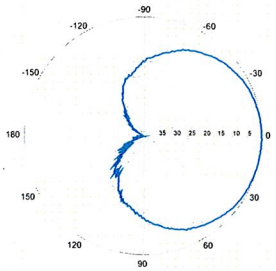
Horizontal | 1710-1880 MHz

BXA-171085-8BF-EDIN-X



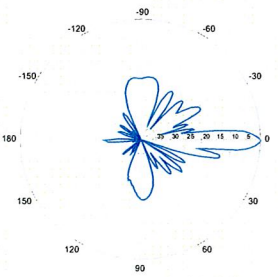
Horizontal | 1850-1990 MHz

BXA-171085-8BF-EDIN-X



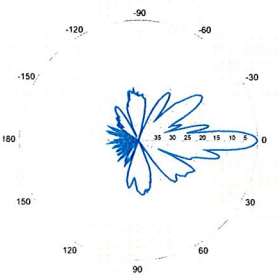
Horizontal | 1920-2170 MHz

BXA-171085-8BF-EDIN-0



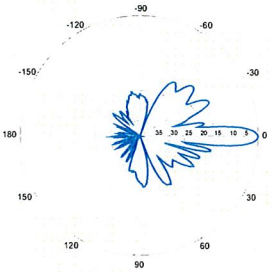
0° | Vertical | 1710-1880 MHz

BXA-171085-8BF-EDIN-0



0° | Vertical | 1850-1990 MHz

BXA-171085-8BF-EDIN-0

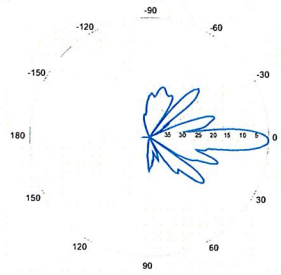


0° | Vertical | 1920-2170 MHz

BXA-171085-8BF-EDIN-X

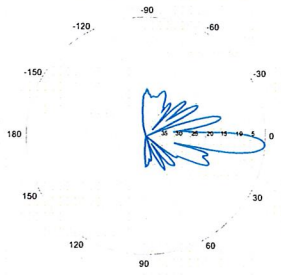
X-Pol | FET Panel | 85° | 16.4 dBi

BXA-171085-8BF-EDIN-2



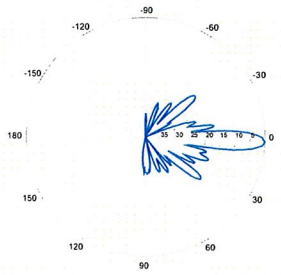
2° | Vertical | 1710-1880 MHz

BXA-171085-8BF-EDIN-4



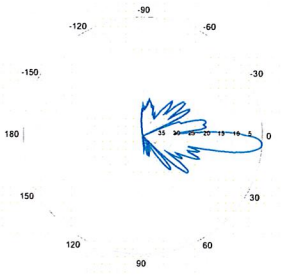
4° | Vertical | 1710-1880 MHz

BXA-171085-8BF-EDIN-2



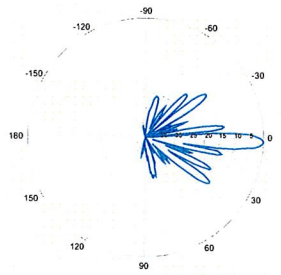
2° | Vertical | 1850-1990 MHz

BXA-171085-8BF-EDIN-4



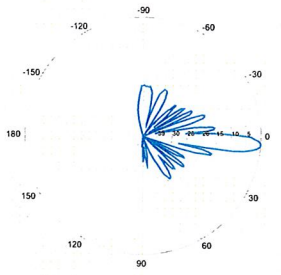
4° | Vertical | 1850-1990 MHz

BXA-171085-8BF-EDIN-2



2° | Vertical | 1920-2170 MHz

BXA-171085-8BF-EDIN-4



4° | Vertical | 1920-2170 MHz

Amphenol ANTENNA SOLUTIONS

BXA-70063-6CF-EDIN-X

X-Pol | FET Panel | 63° | 14.5 dBd

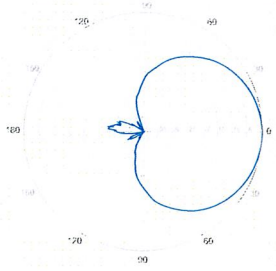
Replace "X" with desired electrical downtilt.

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 m² Side: 0.24 m²	Front: 5.5 ft² Side: 2.6 ft²
Wind load @ 161 km/hr (100 mph)	Front: 759 N Side: 391 N	Front: 169 lbf Side: 89 lbf

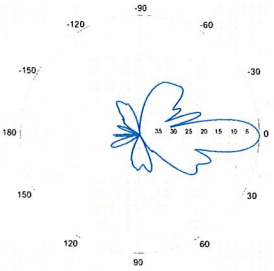
Mounting Options	Part Number	Fits Pipe Diameter	Weight
3-Point Mounting & Downtilt Bracket Kit	36210008	40-115 mm 1.57-4.5 in	6.9 kg 15.2 lbs
Concealment Configurations	For concealment configurations, order BXA-70063-6CF-EDIN-X-FP		

BXA-70063-6CF-EDIN-X



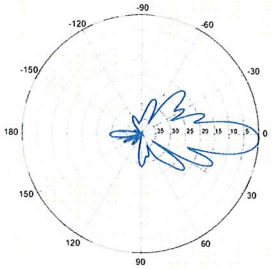
Horizontal | 750 MHz

BXA-70063-6CF-EDIN-0

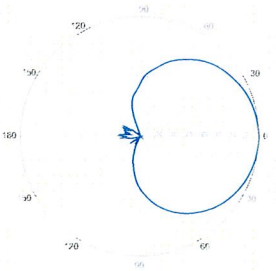


0° | Vertical | 750 MHz

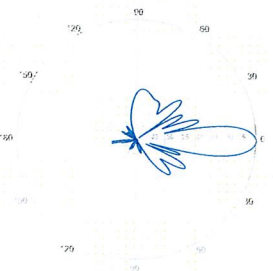
BXA-70063-6CF-EDIN-2



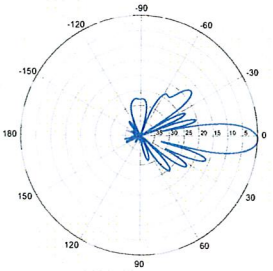
2° | Vertical | 750 MHz



Horizontal | 850 MHz



0° | Vertical | 850 MHz

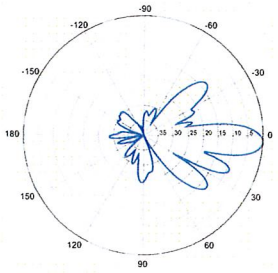


2° | Vertical | 850 MHz

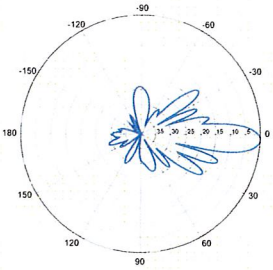
BXA-70063-6CF-EDIN-X

X-Pol | FET Panel | 63° | 14.5 dBd

BXA-70063-6CF-EDIN-3

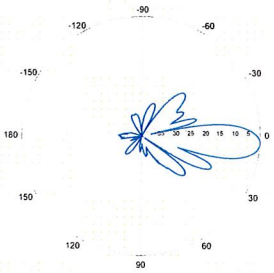


3° | Vertical | 750 MHz

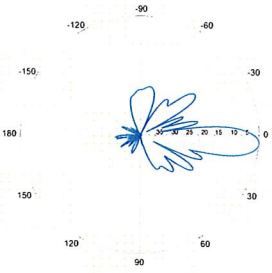


3° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-4

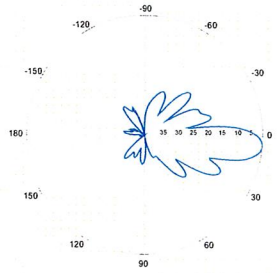


4° | Vertical | 750 MHz

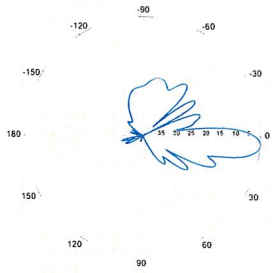


4° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-5

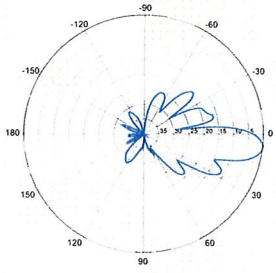


5° | Vertical | 750 MHz

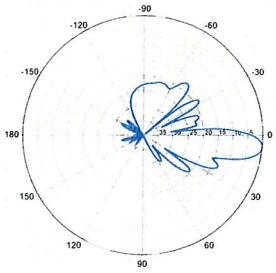


5° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-6

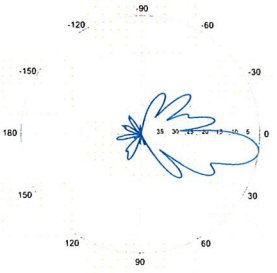


6° | Vertical | 750 MHz

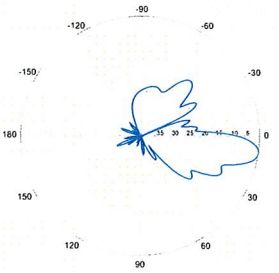


6° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-8

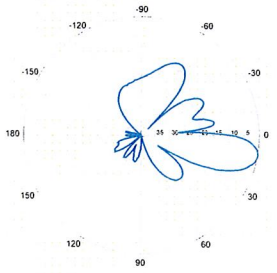


8° | Vertical | 750 MHz

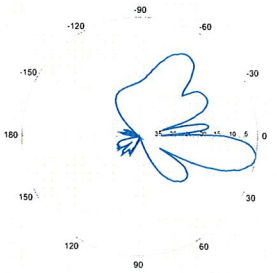


8° | Vertical | 850 MHz

BXA-70063-6CF-EDIN-10



10° | Vertical | 750 MHz



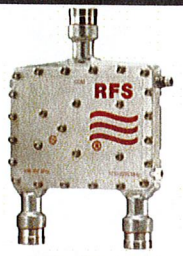
10° | Vertical | 850 MHz

Product Data Sheet **FD9R6004/2C-3L**

ShareLite Wideband Diplexer – In-line 698-960 MHz/1710-2200 MHz, DC pass in high frequency path

Product Description

The ShareLite FD9R6004 Series of diplexers are designed to enable feeder sharing between systems in the 698-960 MHz range and in the 1710-2200 MHz range. The diplexer is equipped with in-line connector placement so it can be installed in the BTS cabinet or at the tower top. This is especially valuable in crowded sites or when the feeders are not easily accessible. Due to its wideband design, the FD9R6004 Series can accommodate many combining solutions between 698-960 MHz and 1710-2200 MHz systems such as LTE 700 MHz, Cellular 800 MHz with PCS, GSM900 with GSM1800, or GSM900 with UMTS. This diplexer features a highly selective filter. It provides a high level of isolation between ports, while keeping the insertion loss on both paths at an extremely low level. The FD9R6004 diplexers are available with various DC pass options, helpful in configurations with or without the Tower Mount Amplifiers installed.



Features/Benefits

- **LTE ready design**
- **Extremely Low Insertion Loss**
- **High level of Rejection between bands – Protection against interferences**
- **Extremely High Power Handling Capability**
- **Integrated DC block/bypass versions available**
- **Very compact & small size design – Easy installation and reduced tower load**
- **In-line long-neck connectors for easy connection & waterproofing**
- **Exceptional reliability & environmental protection (IP 67)**
- **Equipped with 1 * Breathable Vent – Prevent any humidity inside the product**
- **Mounting hardware for Wall and Pole mount provided (P/N SEM2-1A)**
- **Grounding already provided through the mounting bracket**
- **Kit available for easy dual mount**

Technical Specifications

Product Type	Diplexer/Cross Band Coupler
Frequency Range 1, MHz	698-960
Frequency Range 2, MHz	1710-2200
Application	LTE700, GSM900, UMTS, GSM1800, Cellular 800, PCS
Configuration	Sharelite Single diplexer, outdoor, DC pass in the 1710-2170MHz path, with mounting hardware SEM2-1A
Mounting	Wall Mounting: With 4 screws (maximum 6mm diameter); Pole Mounting: With included clamp set 40-110mm (1.57-4.33)
Return Loss All Ports Min/Typ, dB	19/23
Power Handling Continuous, Max, W	1250 at common port; 750 in low frequency path & 500 in high frequency path
Power Handling Peak, Max, W	15000 in low frequency path & 8000 in high frequency path
Impedance, Ohms	50
Insertion Loss, Path 1, dB	0.07 typ.
Insertion Loss, Path 2, dB	0.13 typ.
Rejection Between Bands Min/Typ, dB	58/64@698-960MHz; 60/70@1710-2200MHz
IMP Level at the COM Port, Typ, dBm	-112 @ 2x43
DC Pass in Low Frequency Path	No
DC Pass in High Frequency Path	Yes
Temperature Range, °C (°F)	-40 to +60 (-40 to +140)
Environmental	ETSI 300-019-2-4 Class 4.1E
Ingress Protection	IP 67
Lightning Protection	EN/IEC61000-4-5 Level 4
Connectors	In-line long-neck 7-16-Female
Weight, kg (lb)	1.2 (2.6)
Shipping Weight, kg (lb)	3.2 (7) for 2 * single units in 1 * box, 9.8 (21.6) for 6 * units = 3 * Boxes in 1 * overwrap
Dimensions, H x W x D, mm (in)	147 x 164 x 37 (5.8 x 6.5 x 1.5)
Shipping Dimensions, H x W x D, mm (in)	254 x 406 x 82 (10 x 16 x 3.2) for 2 * Single Units in 1 * box, 280 x 406 x 241 (11 x 16 x 9.5) for 6 * units = 3 * Boxes in 1 * overwrap
Volume, L	0.43
Housing	Aluminum

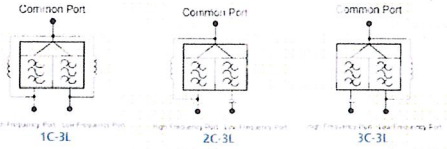
Notes

ShareLite Wideband Diplexer – In-line 698-960 MHz/1710-2200 MHz, DC pass in high frequency path

Other Documentation

FD9R6004/2C-3L Installation Instructions: Wideband_Diplexer_Installation_Rev5.pdf

Selection Guide Diplexer 698-960 / 1710-2200MHz					
	Model Number	Full DC Pass	DC Pass High Band	DC Pass Low Band	Mounting Hardware Included
Single	FD9R6004/1C-3L				X
	FD9R6004/2C-3L				X
	FD9R6004/3C-3L				X
Dual	KIT-FD9R6004/1C-DL				X
	KIT-FD9R6004/2C-DL				X
	KIT-FD9R6004/3C-DL				X



The FD9R6004 Series is upgradeable to a Dual Diplexer kit by means of 2 diplexers and mounting hardware kits SEM2-1A and SEM2-3

Mounting Hardware and Ground Cable Ordering Information		
Model Number	Description	
SEM2-1A	Mounting Hardware, Pole mount ø40-110mm (Included with the Single and Dual Diplexer) Wall Screws M6 (Not included with the product)	
SEM2-3	Assembly kit for 2 pcs of FD9R6004/xC-3L (Can be ordered separately but included with the Dual Diplexer Kit)	
CA020-2	Ground Cable, 2m, includes lugs (Optional)	
CA030-2	Ground Cable, 2m, includes lugs (Optional)	
SEM6	Mounting Hardware for 6 Diplexers, Tower Base (Optional)	

	General	Power	Density					
Site Name: Eastford								
Tower Height: Verizon @ 193ft								
CARRIER	# OF CHAN.	WATTS ERP	HEIGHT	CALC. POWER DENS	FREQ.	MAX. PERMISS. EXP.	FRACTION MPE	Total
*Nextel	9	100	166	0.0117	851	0.5673	2.07%	
*Sprint	11	122	180	0.0149	1962.5	1.0000	1.49%	
*AT&T GSM	2	427	150	0.0136	1930	1.0000	1.36%	
*AT&T GSM	4	296	150	0.0189	880	0.5867	3.23%	
*AT&T UMTS	1	500	150	0.0080	880	0.5867	1.36%	
Verizon PCS	**11**	**222**	**193**	**0.0236**	**1970**	**1.0000**	**2.36%**	
Verizon Cellular	**9**	**239**	**193**	**0.0208**	**869**	**0.5793**	**3.58%**	
Verizon AWS	**1**	**623**	**193**	**0.0060**	**2145**	**1.0000**	**0.60%**	
Verizon 700	**1**	**789**	**193**	**0.0076**	**698**	**0.4653**	**1.64%**	
								17.69%
* Source: Siting Council								

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www.nuddtowers.com

Mark LeGault
Cordless Data Transfer, Inc.
600 Old Hartford Road
Colchester, CT 06415
April 26, 2012

Nudd Job Number: 112-13003

Site Location: 35 Old Route 44, Eastford, CT 06242, Windham County

Subject: Structural Analysis of an existing 190 ft Guyed Tower

Fred A. Nudd Corporation has completed a structural analysis of an existing 190 ft guyed tower. The tower was originally designed by Fred A. Nudd Corporation in March of 1998. The tower analysis was completed considering TIA-222-F design standards, which is the enforced design standard of the 2003 International Building Code and 2005 State Building Code of Connecticut with 2009 Amendments. Additional standards used in this analysis include AISC Allowable Stress Design Manual, 9th Edition, and ACI318-05, Building Code Requirements for Structural Concrete and Commentary. Tower and foundation dimensions have been taken from drawings by Fred A. Nudd, project number 98-5874, dated March 1998. The tower was later extended and re-guyed by Fred A. Nudd Corporation, drawing number 00-5874A-1, dated July 31, 2000. Geotechnical information was taken from a subsurface exploration report by Tower Engineering Professionals, Inc., project number 090004.14, dated September 22, 2009. Design criteria per each analysis are noted on the following page. The tower is assumed to be in good, undamaged and equivalent as new condition and has been maintained / inspected per criteria by TIA-222.

The purpose of the analysis is to determine if the above noted tower can support new wireless equipment, in addition to wireless equipment already installed. The new design loading condition, including all existing and proposed equipment is shown on the following page. Results from the analysis confirm the tower and foundation can support the new wireless equipment and conforms to the above noted design for the new design loading condition. Specific member usages are shown on the following pages.

Based on these results, the new antennas can be installed on this structure and the structure will still meet the aforementioned standards.

We trust this report satisfies your needs. Please contact us with any questions or concerns regarding this report.

Best Regards,
Fred. A. Nudd Corporation

David Tan, P.E. (CT License No. 22092)

Code Design Criteria

TIA-222-F
Windspeed = 85 mph, fastest mile
Exposure = C
Structure Class II
Radial Ice = 0.5 inch
Ice Windspeed = 74 mph, 3-second gust
Topographic Category = II
Seismic = Not considered, as seismic activity in this region is low (S_s less than 1.00, Site Class = D)

Appurtenance Loading – Existing and To Remain on Tower

Elevation (ft)[1]	Antenna	Mount	Coax (in)[2]
193	-	Sector Frame	(12) 1-5/8
180	(9) Swedcom ALP-E-9011	Sector Frame	(9) 1-1/4
165	(9) Decibel DB980F90E-M	Sector Frame	(9) 1-5/8
150	(6) Allgon 7770.00 (12) TMA	Sector Frame	(12) 1-5/8

[1]*Note elevation is measured from grade to center of antenna*
[2]*Note no coax is to be installed or removed during the installation of the new wireless equipment. All coax is to remain installed in its original location and orientation.*

Appurtenance Loading – To Be Removed from Tower

Elevation (ft)[1]	Antenna	Mount	Coax (in)
193	(6) Decibel DB844F90A-SX (6) Decibel DB948F85T2E-M	-	-

[1]*Note elevation is measured from grade to center of antenna*

Appurtenance Loading – Final Configuration for Verizon

Elevation (ft)[1]	Antenna	Mount	Coax (in)
193	(3) Antel BXA-70063-6CF (6) Antel LPA-80080-6CF (3) Antel BXA-171085/8BF (6) RFS FD9R6004/2C-3L	-	-

[1]*Note elevation is measured from grade to center of antenna*

Maximum Member Usage Results

Member	Usage (%)[1]
Leg	97.5
Diagonal	82.2
Horizontal	61.1
Guy Wires	74.1
Bolts	47.4

[1]*Usage above 100% indicates the applied design load exceeds the member strength capacity and requires strengthening.*

Maximum Member Usage Results

Member	Capacity (kips)	Analysis (kips)	Usage (%)[1]
Base Axial	121.0	117.7	97.0
Anchor Uplift	62.8	43.0	68.5
Anchor Shear	53.6	50.3	93.8

[1]*Usage above 100% indicates the applied design load exceeds the member strength capacity and requires strengthening.*