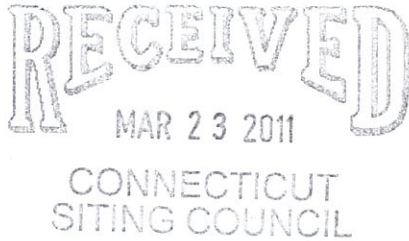


ROBINSON & COLE^{LLP}



KENNETH C. BALDWIN

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

March 22, 2011

Michael Perrone
Siting Analyst
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Cellco Partnership d/b/a Verizon Wireless**
EM-VER-008-100222 – 93 Old Amity Road, Bethany, Connecticut

Dear Mr. Perrone:

On April 5, 2010, the Siting Council acknowledged receipt of Cellco's notice of intent to modify the above-referenced telecommunications facility. This modification involved the removal of six (6) of Cellco's existing antennas, replacing them with three (3) newer model PCS antennas and three (3) LTE antennas. In addition to the antenna modifications, Cellco intends to install six (6) coax cable diplexers on its antenna mounting platform.

Attached to this letter is an updated Structural Evaluation for the previously approved antenna modifications including the coax diplexers and a copy of the diplexer specifications. This analysis confirms that the tower can support all of Cellco's proposed modifications.

If you have any questions regarding any of these materials, please do not hesitate to contact me or Rachel Mayo.



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Sincerely,

A handwritten signature in blue ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a large initial "K".

Kenneth C. Baldwin

Attachment

Copy to:

Sandy M. Carter
Brian Ragozzine
Mark Gauger

10970218-v1



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Level 1 Structural Evaluation ¹		
ATC Site Number & Name	88008, Bethany CT	Engineering ID: 46777311
Carrier Site Number & Name	N/A, Bethany, CT	
Site Address	93 Old Amity Road Bethany, CT 06524-3400, New Haven County	
Tower Description	337.5 ft AT&T Tag Type 'H' Self Support Tower	
Standards & Codes ²	Basic Wind Speed: 85 mph (Fastest Mile) Radial Ice: 74 mph (Fastest Mile) w/ 1/2" radial ice Code: ANSI/TIA/EIA-222-F / 2003 IBC Criteria per Section 1609.1.1, Exception (5) and Section 3108.4 w/ 2005 Connecticut Supplements & 2008 Connecticut Amendments	

Table 1: Existing Antenna Configuration

EL (Ft)	QTY	ANTENNAS	MOUNT	COAX (In)	CARRIER
338	1	Rohde & Schwarz ADD090	Platform w/ Handrails	(3) 7/8	US Treasury
310	1	Sinclair SC381-HL	Sector Frame	(2) 7/8	
	1	Sinclair SC281-L			
275	1	Sinclair SC281-L	Sector Frame	(1) 7/8	
250	12	Decibel DB844H90E-XY	Sector Frame	(12) 1 5/8	Sprint Nextel
240	9	Dapa 58000X	Sector Frame	(9) 1 5/8	
220	3	RFS APX16PV-16PVL-E-00	Sector Frame	(12) 1 5/8 (1) 0.315	T-Mobile
	6	Remec S20057A1			
	6	RCU			
177	3	Rymsa MGD3-800TO	Sector Frame	(12) 1 5/8	Verizon Wireless
	6	Andrew DB844H90-XY			
	3	Powerwave P65-16-XL-2			
165	6	Powerwave 7770.00	Sector Frame	(12) 1 5/8	AT&T Mobility
	6	Powerwave LGP21401			
100	3	RFS APXV18-206517S-C	Pipe	(6) 1 5/8	Youghiogheny
48	1	GPS	Leg	(1) 1/2	Sprint Nextel
20	1	GPS	Leg	(1) 1/2	

Table 2: Proposed Antenna Configuration

EL (Ft)	QTY	ANTENNAS	MOUNT	COAX (In)	CARRIER
179	6	RFS FD9R6004/2C-3L	Sector Frame	-	Verizon Wireless

Proposed coax already existing on tower.



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The subject tower and foundation *are adequate* to support the above stated loads in conformance with specified requirements.³



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Connecticut.

¹The existing and proposed loads of *Table 1* and *Table 2* are compared to the tower's current design capacity or previous analysis.

²The design wind criteria are compared to the current code requirements.

³The tower should be re-evaluated as future loads are added or if actual loads are found different from those mentioned in the above tables.



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 Band, MHz	698-2200
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)
Frequency Range Low Frequency Path, MHz	698-960
Frequency Range High Frequency Path, MHz	1710-2200
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 698-960 MHz Path, Typ, dB	0.07
Insertion Loss 1710-2200MHz path, Typ, dB	0.13
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
Application	LTE 700MHz, GSM900/3G/UMTS, GSM900/GSM1800, Cellular 800/PCS
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

RFS The Clear Choice ®

FD9R6004/2C-3L

Rev: --

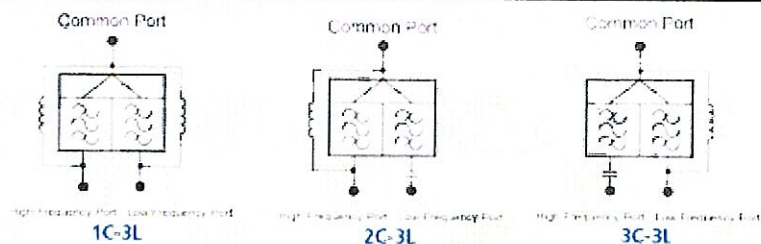
Print Date: 16.02.2011

Please visit us on the internet at <http://www.rfsworld.com/>




Radio Frequency Systems

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

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 FT9DW/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)	