

EM-VER-054-080422

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

April 22, 2008

Via Hand Delivery

ORIGINAL

RECEIVED
APR 22 2008
CONNECTICUT
SITING COUNCIL

S. Derek Phelps
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Notice of Exempt Modification – Antenna Swap
374 Three Mile Road, Glastonbury, Connecticut**

Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains a wireless telecommunications facility at the above referenced location. The Council approved Cellco’s use of this facility in Docket No. 174. On April 19, 2005, the Council granted Cellco’s request to replace six cellular antennas with six PCS antennas. Cellco now intends to modify its installation further by attaching two (2) tower mounted amplifiers (TMAs) to the mounting mast behind two of the existing antennas. Cellco’s existing antennas maintain a centerline height of 148 feet on the 145-foot monopole tower. The tower is owned by Crown Castle International. Attached behind Tab 1 are the specifications and a mounting detail for the proposed TMAs.

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 Richard J. Johnson, Town Manager of the Town of Glastonbury. Pursuant to a Council directive, a copy of this letter is also being sent to Josephine I. Flanagan, Trustee, the owner of the property on which the facility 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 the increase in the overall height of the existing structure. Cellco’s TMAs will not extend above the top of Cellco’s existing antennas.



Law Offices

BOSTON

HARTFORD

NEW LONDON

STAMFORD

WHITE PLAINS

NEW YORK CITY

SARASOTA

www.rc.com

HART1-1463954-1

ROBINSON & COLE_{LLP}

S. Derek Phelps
April 22, 2008
Page 2

2. The proposed modifications will not involve any 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 TMAs will not increase radio frequency (RF) power density levels at the facility to a level at or above the Federal Communications Commission (FCC) adopted safety standard. A cumulative power density table for the facility, including the TMAs, is included behind Tab 2.

Also attached is a Structural Opinion Letter confirming that the tower can support the proposed 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

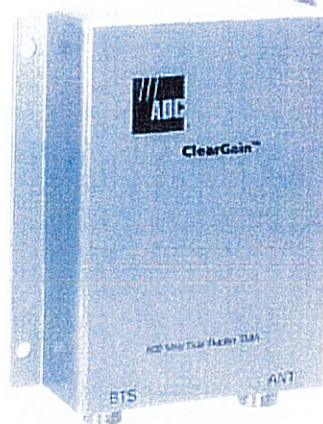
Copy to:

Richard J. Johnson, Glastonbury Town Manager
Josephine I. Flanagan, Trustee
Sandy M. Carter



ClearGain® Tower-Mounted Amplifiers

Americas



As mobile usage continues to increase, service providers are faced with the challenge of optimizing and expanding their wireless networks to provide new and existing services. ADC's ClearGain® Tower-Mounted Amplifiers (TMAs) minimize the cost of network expansion and improve quality of service, allowing service providers to increase profitability from new and existing services.

The ClearGain TMAs improve signal quality by boosting the uplink signal of a mobile system to increase receiver performance and improve overall coverage.

Features:

- Provides amplification of the Band
- Highly advanced LNA amplifies RX signal for improved receiver performance and increase in coverage
- Dual duplex feature reduces the number of feeder cable runs by providing simultaneous operation of TX and RX with low TX loss
- Full Band feature provides amplification of the entire band
- Advanced filtering maintains the lowest possible noise figure for improved quality of service
- Slim, stackable design conserves tower space and reduces tower-related costs
- Seamless aluminum sleeve construction protects components from the elements
- Modular system is fully compatible with all base stations
- Power and alarming for up to six masthead units is provided from a single unit at the base station



www.adc.com • +1-952-938-8080 • 1-800-366-3891



ClearGain® Tower-Mounted Amplifiers

Americas

Introduction

Unacceptable network quality is one of the main reasons for mobile subscriber churn. With industry churn at their current rates, a service provider's entire customer base could be lost in as few as three years. The cost of acquiring new subscribers to replace the existing customer base can be enormous. Improvements in quality of service can directly impact a service provider's profitability through the cost savings associated with increased subscriber retention and the additional revenue gained from increased billable minutes of use resulting from improved signal quality.

While subscribers are willing to pay a premium for data services, improved quality of service is necessary to provide new data services. Due to the tradeoff between bit rate and bandwidth inherent to data services, improved signal quality is required to achieve the same level of performance at even higher data rates. ADC's ClearGain Tower-Mounted Amplifiers help provide this improvement in signal quality.

TMA's improve signal quality by boosting the uplink (RX) signal of a mobile system immediately after the antenna. This compensates for the loss in signal strength that occurs when the signal is passed through the coaxial feeder cable to the base transceiver station (BTS) at the base of the tower. ClearGain TMAs perform this amplification with the lowest possible noise contribution, resulting in a substantial increase in receiver performance and an improvement in overall coverage. These improvements in quality of service allow mobile subscribers to place more calls, make longer calls, and successfully complete calls in an expanded geographic area, resulting in increased revenue.

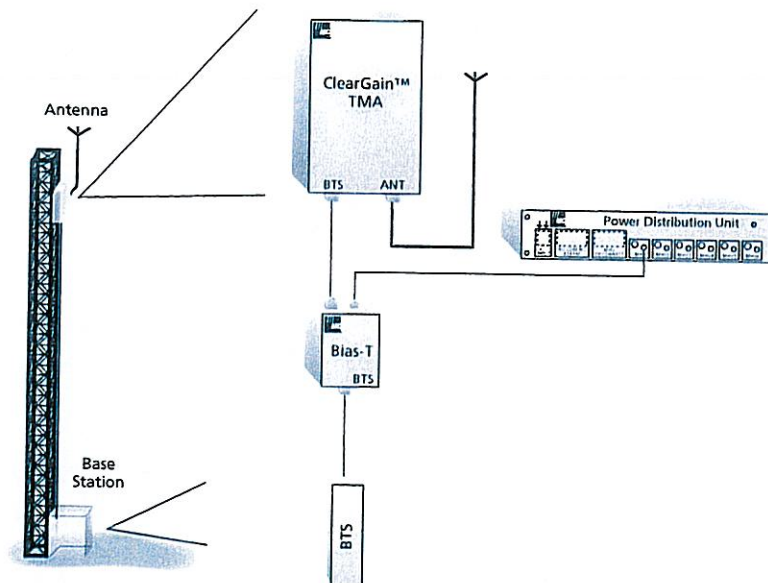
System Overview

The ClearGain TMA system is modular, consisting of a Masthead Unit (MHU), a Power Distribution Unit (PDU) and a Bias-T Unit. This system provides full compatibility with all base stations. The ClearGain MHU offers dual duplex operation and incorporates a highly advanced fixed-gain, low-noise amplifier (LNA) and high-performance filters for added reliability. The MHU amplifies each band to maximize signal quality and optimize coverage.

The ClearGain MHU features a slim, lightweight design. This allows two ClearGain TMAs to be mounted with one set of brackets thereby, conserving valuable and costly tower space and reducing clutter on the tower. The TMA is protected with a strong, aluminum sleeve construction designed to ensure superior weather protection and resistance to corrosion, resulting in increased reliability.

In the ClearGain TMA system, DC power is supplied to the MHU from a ClearGain PDU. The PDU also provides alarming and monitoring of the feeder cable and up to six MHUs from a single unit. The flexible design of the ClearGain PDU allows it to be rack- or wall-mounted on the side of a BTS cabinet.

An external Bias-T Unit is used in conjunction with the ClearGain PDU. The Bias-T inserts DC power onto the coaxial cable and extracts alarm and monitoring signals from the coaxial cable.





ClearGain® Tower-Mounted Amplifiers

Americas

Dual Band 800/1900 MHz Full Band Typical Specifications

ELECTRICAL

Nominal Impedance of RF Inputs and Outputs:

50 Ohm

Frequency Range

TX: 800:

869-894 MHz

1900:

1930-1990 MHz

RX: 800:

824-849 MHz

1900:

1850-1910 MHz

Filter Bandwidth:

25/60 MHz

Passband (RX)

Gain:

12 dB

Noise Figure:

800:

1.5 dB

1900:

1.6 dB

Dynamic Range

Input at 1 dB Gain Compression:

+0 dBm

IIP3:

+13 dBm

Max. Input Power:

+10 dBm

851 MHz Rejection:

<30 dB

1915 MHz Rejection:

<15 dB

1916 MHz Rejection:

<30 dB

Bypass Insertion Loss:

2.0 dB

Isolation in TX Path:

80 dB

Insertion Loss of TX Path (TX to Antenna):

4 dB

Passband Return Loss:

TX Band:

>18 dB

RX Band:

>18 dB

Intermodulation:

-120 dBm

Max. Input Power (RMS Power):

800:

500 W

1900:

250 W

Tx Filter Rejection in RX Path:

40 dB

POWER

Operational Voltage:

7 to 20 Vdc

Operational Current:

280 ± 10 mA

Alarm Current Level:

350-520 mA

PHYSICAL

Dimensions (HxWxD):

357 mm x 287 mm x 149 mm

Weight:

10.5 kg (22.5 lbs.)

Color:

Silver

Housing:

Aluminum

CONNECTORS

Antenna Connector:

7/16 DIN female

BTS Connector:

7/16 DIN female

ENVIRONMENTAL

Operating Temperature:

-40° to +60 °C

Lightning Protection:

IEC 61000-4-5

Vibration:

Storage:

ETS3019-1-1

Transport:

ETS3019-1-2

Operation:

ETS3019-1-3

REGULATORY

EMC:

ETS300 342-2

APPROVALS

FCC:

Part 15, Class A

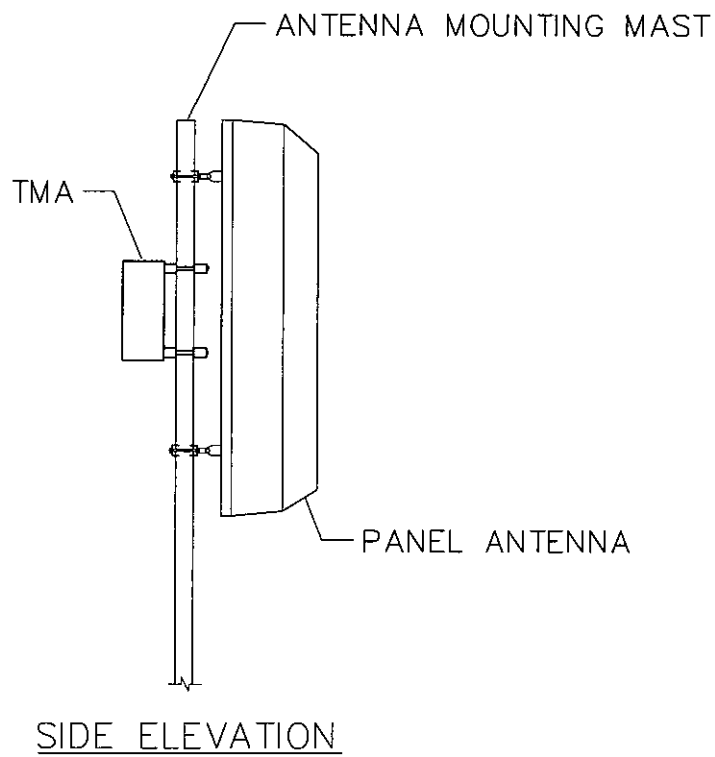
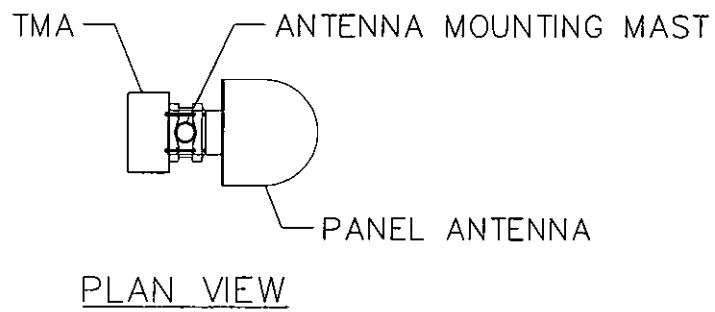
UL:

1950

QUALITY

MTBF:

900,000 hours



TYPICAL TOWER MOUNTED AMPLIFIER (TMA) - MOUNTING DETAIL

NOT TO SCALE



Date: April 17, 2008

Ben Goodhart
Crown Castle USA Inc.
9105 Monroe Road
Suite 150
Charlotte, NC 28270

Crown Castle USA Inc.
2000 Corporate Drive
Canonsburg, PA 15317
(724) 416-2000

Subject: Structural Opinion Letter of 145 Foot – Monopole Tower

Carrier Designation:	Verizon Wireless Co-Locate	
	Carrier Site Number:	N/A
	Carrier Site Name:	N/A
Crown Castle Designation:	Crown Castle BU Number:	806368
	Crown Castle Site Name:	HRT 049B 943215
	Crown Castle JDE Job Number:	101122
	Crown Castle WO Number:	205003

Site Data: Three Mile Road, Glastonbury, CT, Hartford County
Latitude 41°41'36.3", Longitude -72°32'50.4"

Dear Ben Goodhart,

Crown Castle USA Inc. is pleased to submit this "Structural Opinion Letter" for the structural integrity of the aforementioned tower. This evaluation has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 205003. The purpose of the evaluation is to determine the suitability of the tower with the proposed, existing, and reserved loading as specified in Tables 1 & 2 on the next page. This opinion is consistent with the guidelines as stated in the TIA/EIA-222-F standard and local code requirements based upon a fastest-mile wind speed of 80 mph with no ice, 69 mph with 0.5 inch ice thickness and 50 mph under service loading.

Based on a comparison of the controlling structural analysis (including wind speeds), the current loads, and the proposed loads, we have determined the tower structure and foundation ARE sufficient for the proposed loading.

We at the Crown Castle Engineering Department appreciate the opportunity of providing our continuing professional services to you and Crown Castle USA Inc. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted by:

Aaron C. Poot, PE
Engineer II

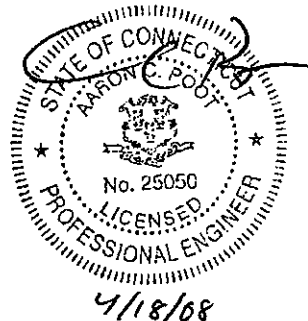


Table 1 – Proposed Antenna and Cable Information

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount Information	Number of Feed Lines	Feed Line Size (In)
148	2	ADC	DB800/1900 FB MSTHD	Existing	-	-

Table 2 – Existing and Reserved Antenna and Cable Information

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (In)
148	6	Antel	LPD-6513	12	1 5/8
	6	Decibel	DB948F85T2E-M		
	1	Generic	GPS	1	1/2
	12*	MLA	52"x9"x3"	12*	1 5/8
140	6	CSS	DUO1417-8686	12	1 1/4
	3	Powerwave Technologies	7770.00		
	6		LGP13519	-	-
	6	ADC	DB800/1900 FB MSTHD	-	-
128	12	Swedcom	ALP 9212-N	12	1 1/4
	2	Generic	GPS	2	1/2
117	3	RFS	APN199015	6	1 5/8
	6	Generic	TMA		
	3**	RFS	APN199015	-	-
97	1	EMS Wireless	RR65-18-02DP	2	1 1/4
96	1	Repeater Tech	DA1900-39	1	1 1/4
87	3***	Allgon	7250.02	6	1 1/4

*Existing loading is controlling at 148' and is used in lieu of the MLA loading in this analysis.

**Reserved equipment.

***Indicates equipment is 'abandoned'.

Table 3 – Controlling Structural Analysis Antenna and Cable Information

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (In)
147	6***	Antel	WPA-80090/4CF	0	-
	6	Decibel	DB948F85T2E-M	12	1 5/8
	1	Generic	GPS	1	1/2
	12*	MLA	52" x 9" x 3"	12*	1 5/8
140	6	CSS	DUO1417-8686	12	1 1/4
	3	Powerwave Tech	7770.00		
	6	ADC	DUAL BAND 800/1900 Fullband Masthead	-	-
	6	Powerwave Tech	LGP13519	-	-
128	12	Swedcom	ALP 9212-N	12	1 1/4
	2	Generic	GPS	2	1/2
117	3	Celwave	APN199015	6	1 5/8
	3**				
	6	Generic	TMA	-	-
97	1	EMS Wireless	RR65-18-02DP	3	1 1/4
96	1	Repeater Tech	DA1900-39		
87	3	Allgon	7250.02	6	1 1/4

* MLA loading controlled the analysis over the existing and proposed loading in previous SA.

** Denotes reserved loading in previous SA.

*** Denotes proposed loading in previous SA.