

September 18, 2000

Federal Communications Commission  
Equipment Approval Services  
7435 Oakland Mills Road  
Columbia, MD 21046  
Attn: Errol Chang

**SUBJECT: WIDE TELECOM INC.**  
**FCC ID: NPWWCH-100**  
**731 Confirmation No.: EA98600**  
**Correspondence Reference No.: 16102**

Dear Errol:

On behalf of Wide Telecom Inc. is an amendment in response to your e-mail dated September 14, 2000 requesting additional information for the subject application.

1. Please find attached the calibration certificate and gain information for the dipole antenna used for the ERP measurements. The following is a detailed description of the ERP signal substitution measurement method used: The EUT is first placed into the field test area at 3.0 meters. The field of maximum intensity is found by rotating the EUT approximately 360 degrees and changing the height of the receive antenna from 1 to 4 meters. Both horizontal and vertical polarizations are investigated. The field strength is recorded from a calibrated spectrum analyzer for each channel being performed. The EUT is then replaced with a calibrated dipole of a well-known gain. The dipole is fed through a directional coupler and the power at the coupler port is monitored. The field of maximum intensity is found for the dipole and the power adjusted in order to read the same on the spectrum analyzer that was found for the EUT. The feed point for the dipole is then connected to a calibrated power meter and the power adjusted to read the same as the coupler port previously recorded, to account for any mismatch in impedance, which may occur at the dipole antenna. The forward power for the dipole is then determined. The actual ERP level is determined by adding the forward power and the calibrated gain of the dipole.
2. Please find attached the revised AGC value table for the Tune-Up Procedure attachment listing a maximum output of 24dBm conducted power. Also attached is a letter from the applicant confirming that the maximum power level of all production units will be 24dBm conducted output.
3. The 731 Form was submitted inadvertently requesting 251mW ERP to be listed on the grant. This power level is the conducted output. The correct output power to be listed on the grant is 244mW ERP.

If you have any further questions or comments, please contact the undersigned.

Sincerely,



Shawn McMillen  
General Manager  
Celltech Research Inc.  
Testing & Engineering Lab

cc: Wide Telecom Inc.



P.O. Box 80589 78708-0589  
2205 Kramer Lane, Austin, TX., 78753-4002  
(512) 835-4684

## Certificate of Calibration Conformance

Page 1 of 3

The instrument identified below has been individually calibrated in compliance with the following standard(s):

ANSI C63.5 - 1988, American National Standard for Electromagnetic Compatibility-Radiated Emission Measurements in Electromagnetic Interference (EMI) Control-Calibration of Antennas, American National Standards Institute, Inc.

Environment: Laboratory MTE is maintained in a temperature controlled environment with ambient conditions from 18 to 28 C, relative humidity less than 90%. The instrument under test has been calibrated on an open air test site (OATS) with environment temperature conditions ranging from 0 to 40 C which has no known influences on measurement quality.

<b>Manufacturer:</b>	EMCO	<b>Operating Range:</b>	400 - 1000 MHz
<b>Model Number:</b>	3121C-DB4	<b>Instrument Type:</b>	DIPOLE Balun 4
<b>Date Code/SN:</b>	0003 - 1494		
<b>Tracking Number:</b>	J 49718		
<b>Date Completed:</b>	04-Apr-00		
<b>Test Type:</b>	3 and 10 Meter, Horizontal		
<b>Calibration Uncertainty:</b> (95% Confidence Level)	03m 10m	400 - 1000 MHz, +/-1.0 dB; 400 - 1000 MHz, +/-1.0 dB;	
<b>Test Remarks:</b>	None		
<b>Recall/Interval:</b>	18 Month Factory Calibration Provided		

Calibration Traceability: All Measuring and Test Equipment (M/TE) identified below are traceable to the National Institute for Standards and Technology (NIST). Calibration Laboratory and Quality System controls are compliant with the objectives of MIL-STD 45662A, ISO/IEC Guide 25 and ANSI/NCSL Z540-1.

**Standards and Equipment Used:**

**Make / Model / Name / S/N / Recall Date**

Anritsu MS4623A Network Analyzer

992201

14-Jun-00

**Condition of Instrument**

**On Release:**

In Tolerance

  
Calibration Completed By  
Lee D. Thompson, Cal Lab Technician

  
Attested and Issued on 04-Apr-00  
Rick Flores, Calibration Lab Manager


**Gain and Antenna Factors for Dipole Antenna**
**Manufactured by EMC Test Systems**
**Model Number: DB-4 Serial Number: 1494**
**3.0 Meter Calibration**
**Polarization: Horizontal**

Frequency (MHz)	Antenna Factor (dB/m)	Gain Numeric	Gain dBi
400	21.0	1.35	1.3
425	21.3	1.42	1.5
450	21.6	1.48	1.7
475	21.9	1.54	1.9
500	22.2	1.58	2.0
525	22.9	1.48	1.7
550	23.6	1.38	1.4
575	24.3	1.28	1.1
600	25.0	1.19	0.7
625	25.2	1.24	0.9
650	25.4	1.29	1.1
675	25.5	1.34	1.3
700	25.7	1.39	1.4
725	26.2	1.31	1.2
750	26.8	1.24	0.9
775	27.3	1.17	0.7
800	27.9	1.10	0.4
825	27.9	1.15	0.6
850	28.0	1.20	0.8
875	28.1	1.26	1.0
900	28.1	1.31	1.2
925	28.4	1.30	1.1
950	28.7	1.28	1.1
975	29.0	1.26	1.0
1000	29.3	1.24	0.9



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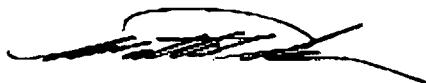
**SUBJECT: WIDE TELECOM INC.**  
**FCC ID: NPWWCH-100**  
**Confirmation No.: EA98600**  
**Correspondence Ref. No.: 16102**

Dear Errol:

Please find attached our revised AGC power level table for the tune-up procedure attachment. We hereby confirm that the maximum power level in all production units of our single-mode CDMA cellular handset (FCC ID: NPWWCH-100) shall not exceed 24dBm conducted output.

If you have any further questions, please do not hesitate to contact me.

Sincerely,



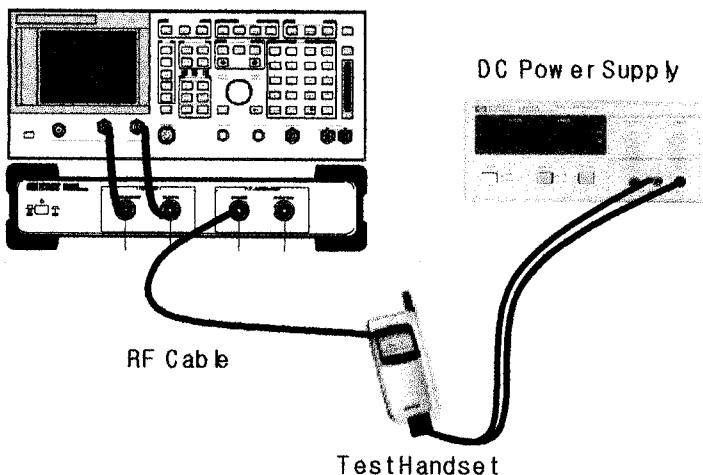
Matt Park  
Wide Telecom Inc.

	<i>Prepared by</i> Jin beom Kim	<i>Date</i> June 8, 2000	<i>Page</i> 65/110
<i>Approved by</i> Wonggi Chang	<i>File reference</i>	<i>Document number</i>	<i>Revision no.</i>

## AGC\_VALUE & TX\_POWER LEVEL

### A. Test Configuration

Mobile TestSet



- Equipment : HP8924C (CDMA MOBILE STATION TEST SET)
- RF Cable : SMK TO SMA Cable
- RF Cable Loss : 1dB

### B. AGC\_VALUE & TX\_POWER LEVEL

AGC Value	TX_Power	AGC Value	TX_Power
0	-59.5	300	6.08
50	-56.3	350	14.6
100	-44.6	390	18.5
150	-30.7	400	22.9
200	-17.4	410	23.8
250	-4.9	415	24.0