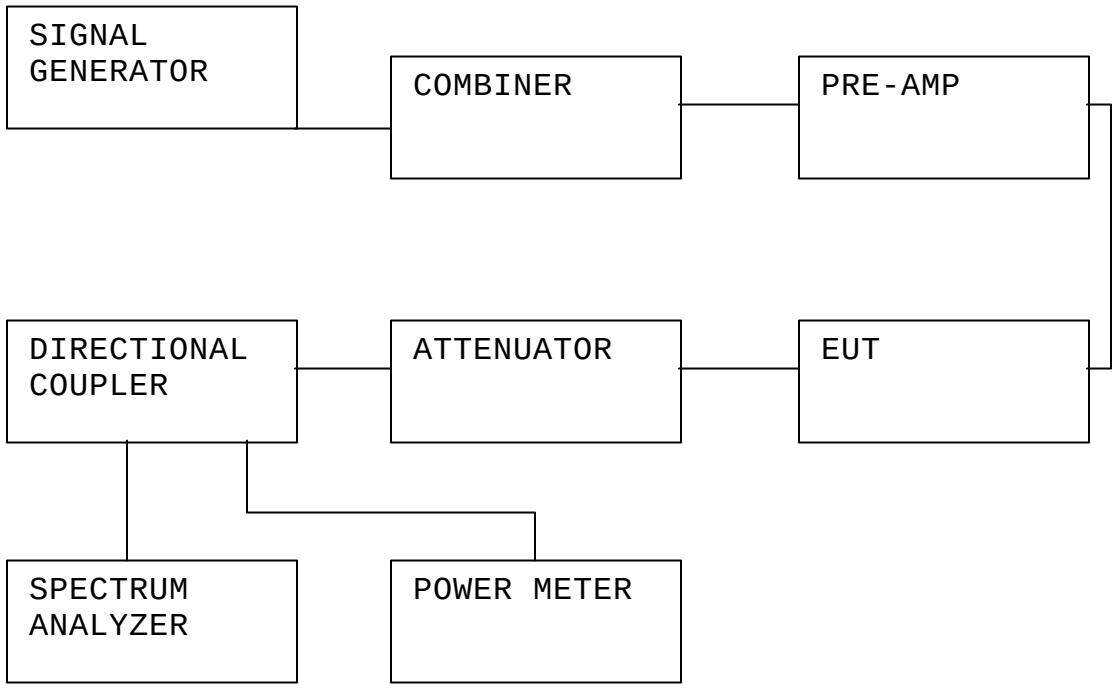
SECTION 2.1047: MODULATION CHARACTERISTICS

Not applicable. EUT is a power amplifier.

SECTION 2.1049: OCCUPIED BANDWIDTH

TEST SETUP FOR OUTPUT:



Minimum Requirement:
Section 2.1049(i);
Transmitters designed for other types of modulation-when modulated by an appropriate signal of sufficient amplitude to be representative of the type of service in which used. A description of the input signal should be supplied.

COMPLIANCE CERTIFICATION SERVICES DOCUMENT NO:CCSUP4031A
561 F MONTEREY ROAD, MORGAN HILL, CA 95037 USA TEL:(408) 463-0885 FAX:(408) 463-0888
This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.

Test Procedure:

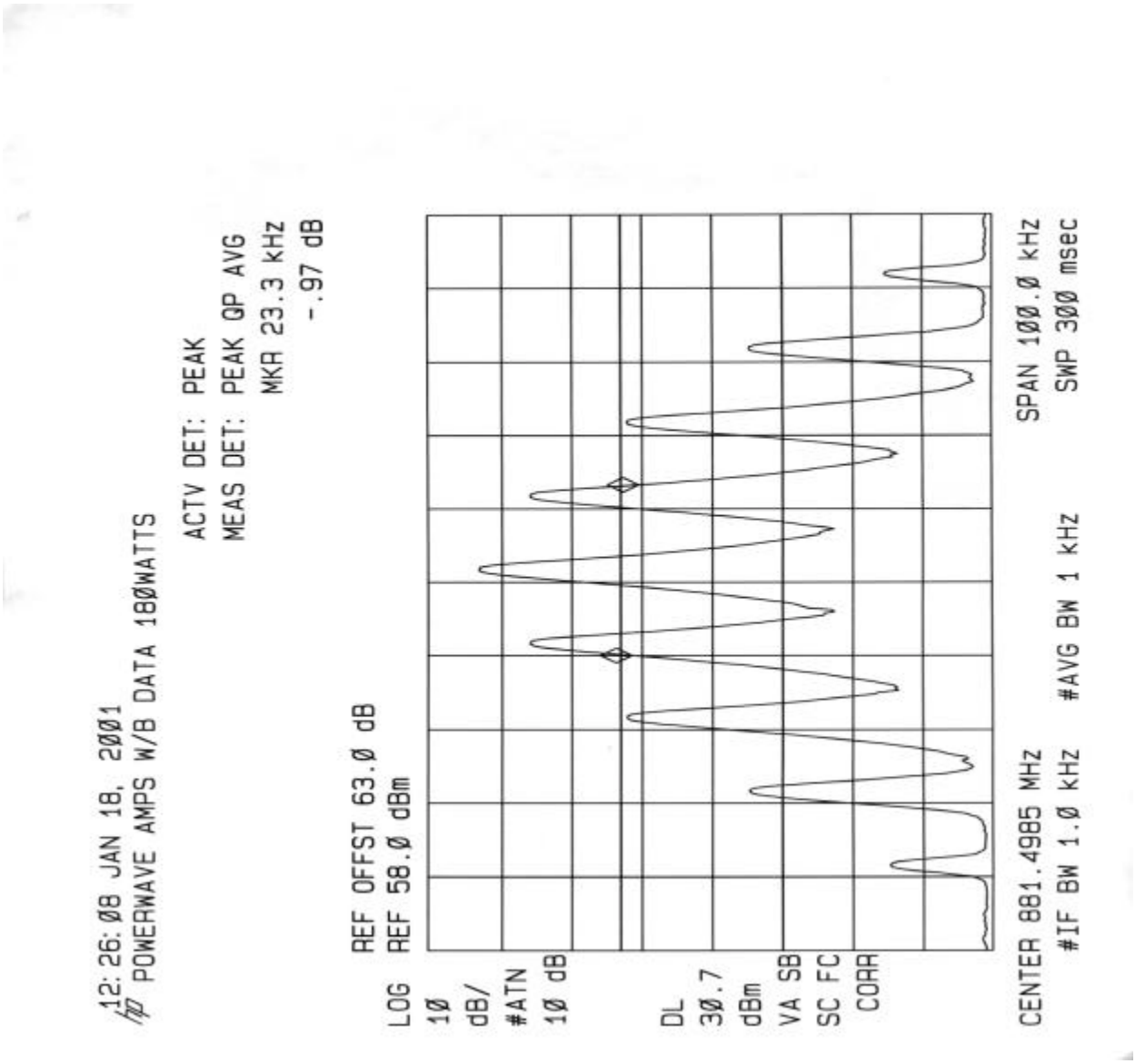
The Eut's occupied bandwidth is compared to the input source plot (signal generator) and output plot (power amplifier) to check that the input signal bandwidth is not greater at the output of amplifier.

Use the setup for output shown above. Correct for external attenuation and cable loss. Set the power amplifier to the maximum output gain. Using the marker delta function, measure the 20dB bandwidth of the EUT's emission. Record the spectrum analyzer plot.

Use the setup for input shown above. Correct for external attenuation and cable loss. Using the marker delta function, measure the 20dB bandwidth of the signal generator's emission. Record the spectrum analyzer plot.

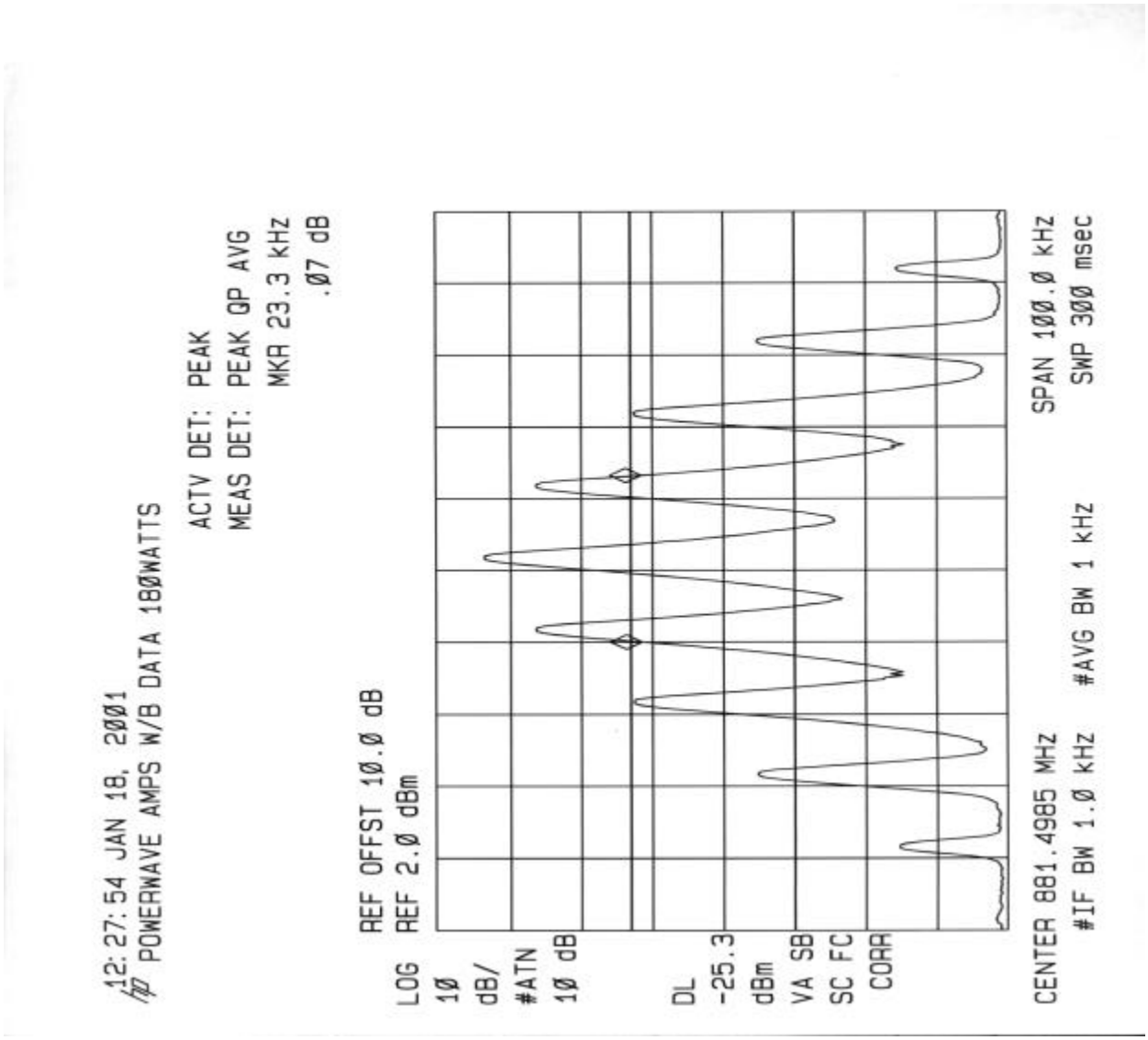
Test Results:
See plots below:

COMPLIANCE CERTIFICATION SERVICES DOCUMENT NO:CCSUP4031A
561 F MONTEREY ROAD, MORGAN HILL, CA 95037 USA TEL:(408) 463-0885 FAX:(408) 463-0888
This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



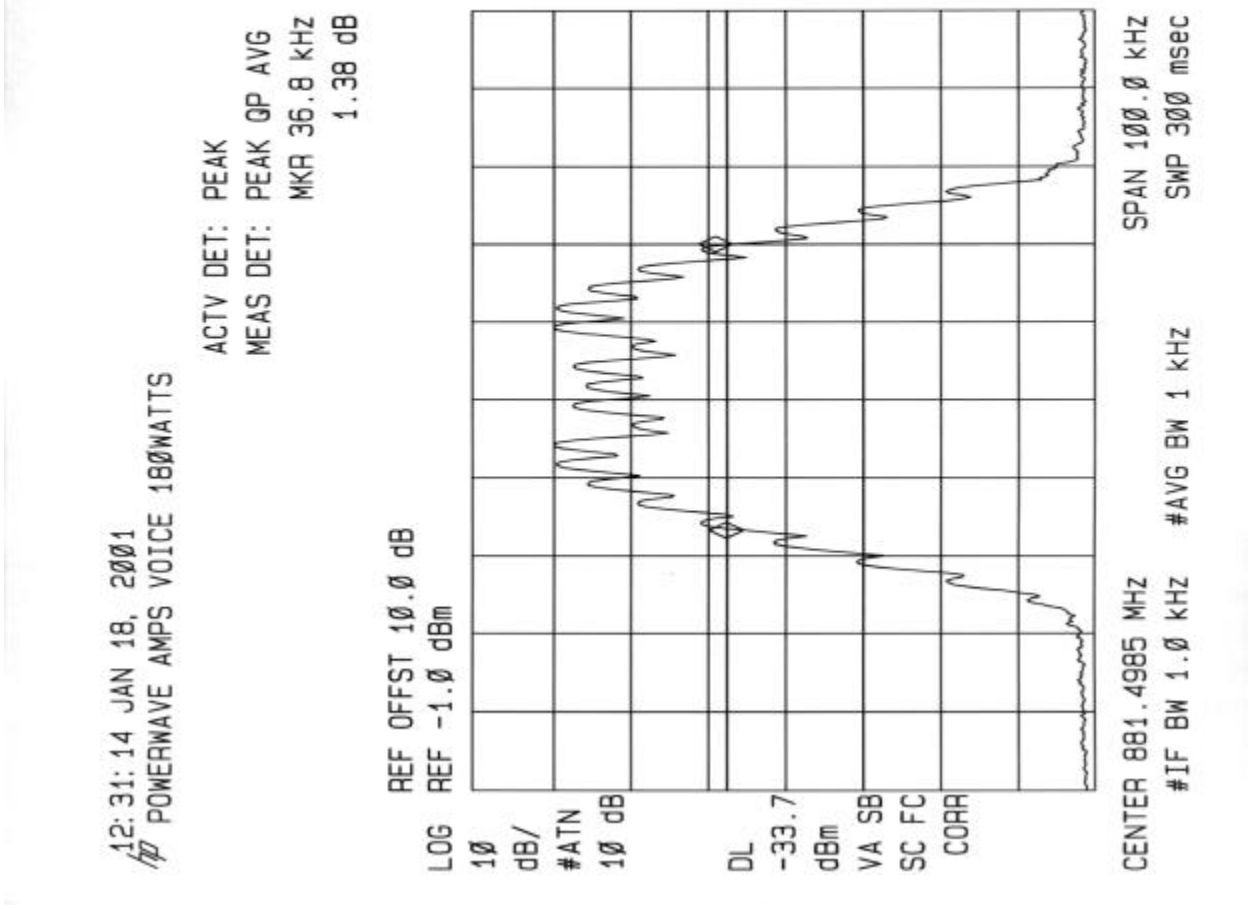
AMPS WITH BANDWIDTH DATA OUTPUT

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



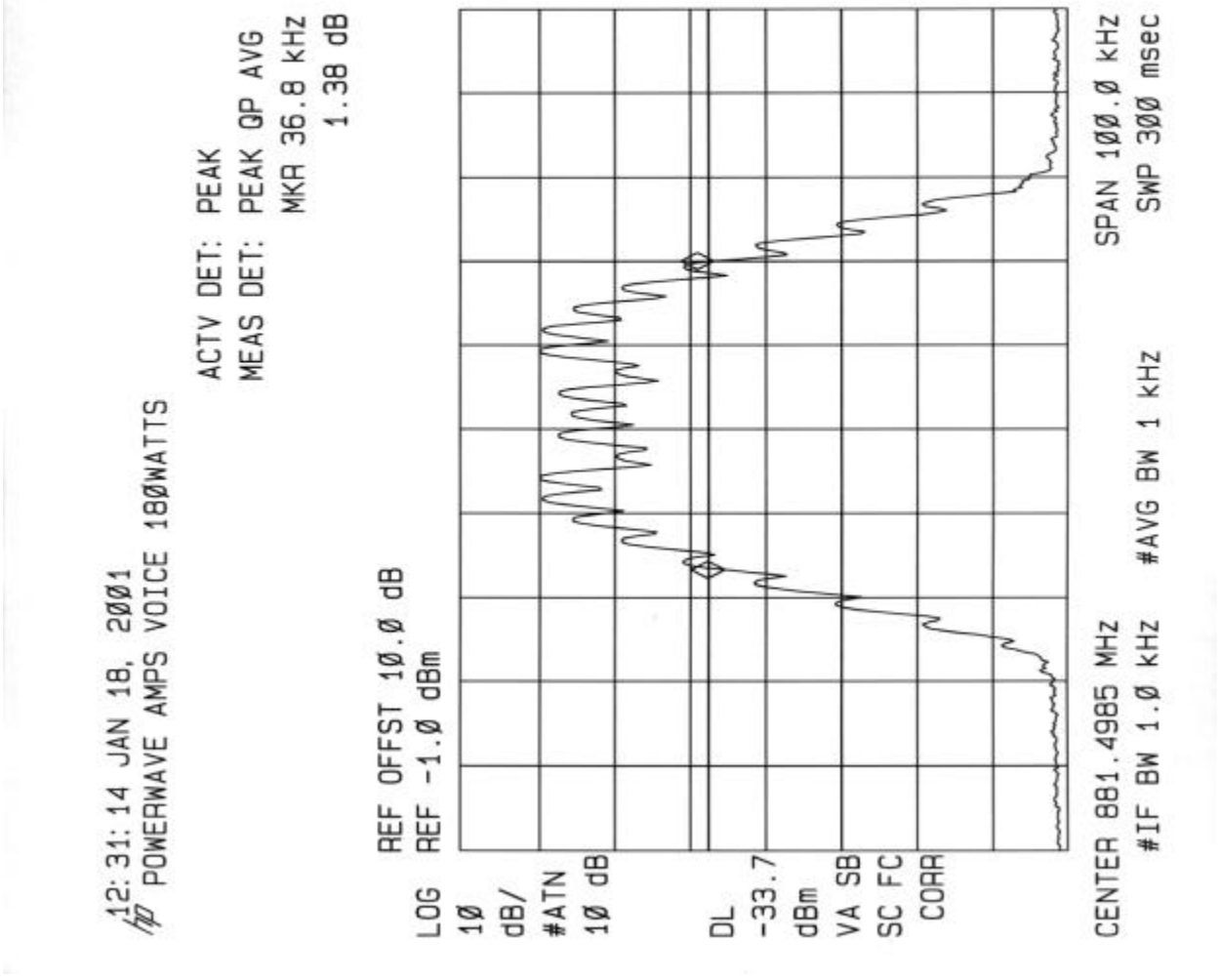
AMPS WITH BANDWIDTH DATA INPUT

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



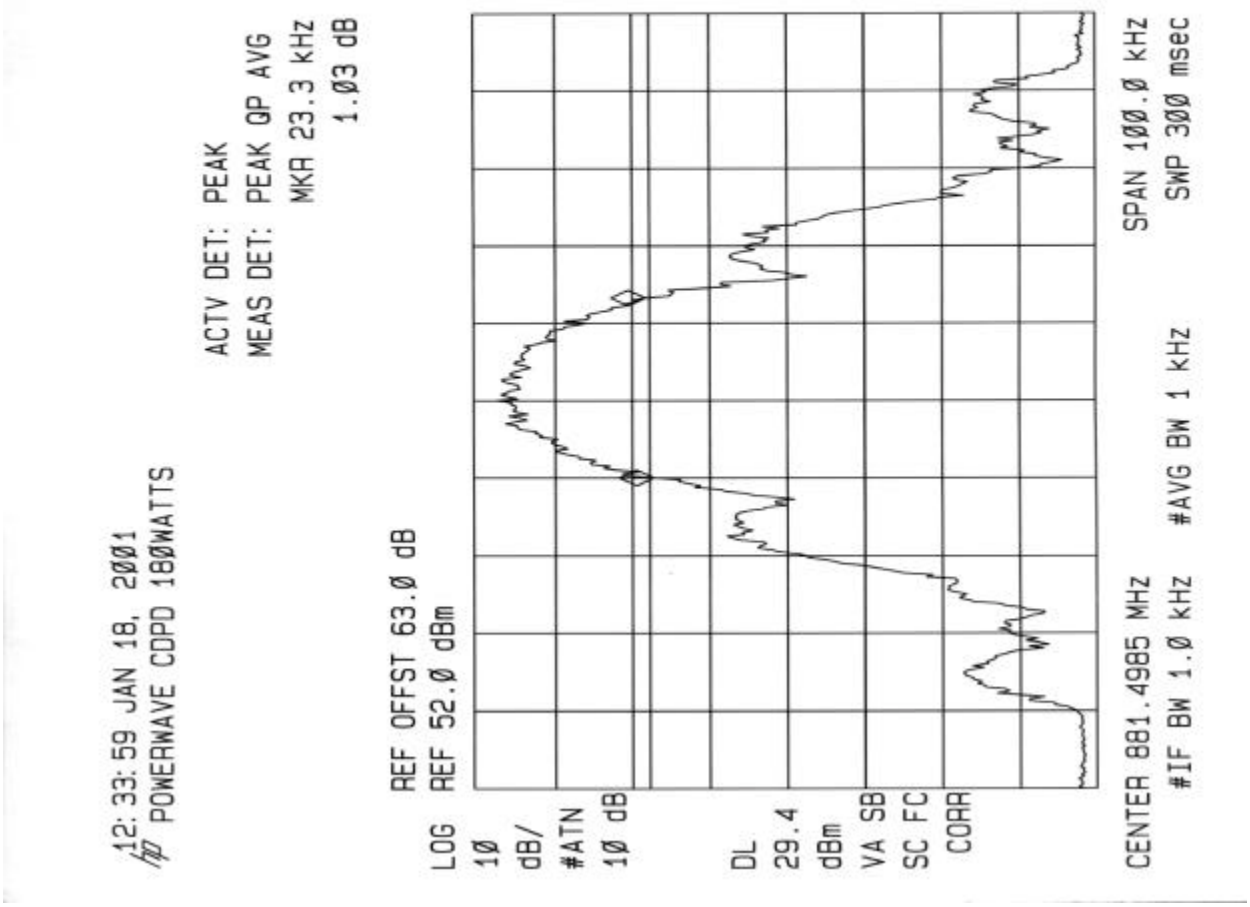
AMPS VOICE BANDWIDTH OUTPUT

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



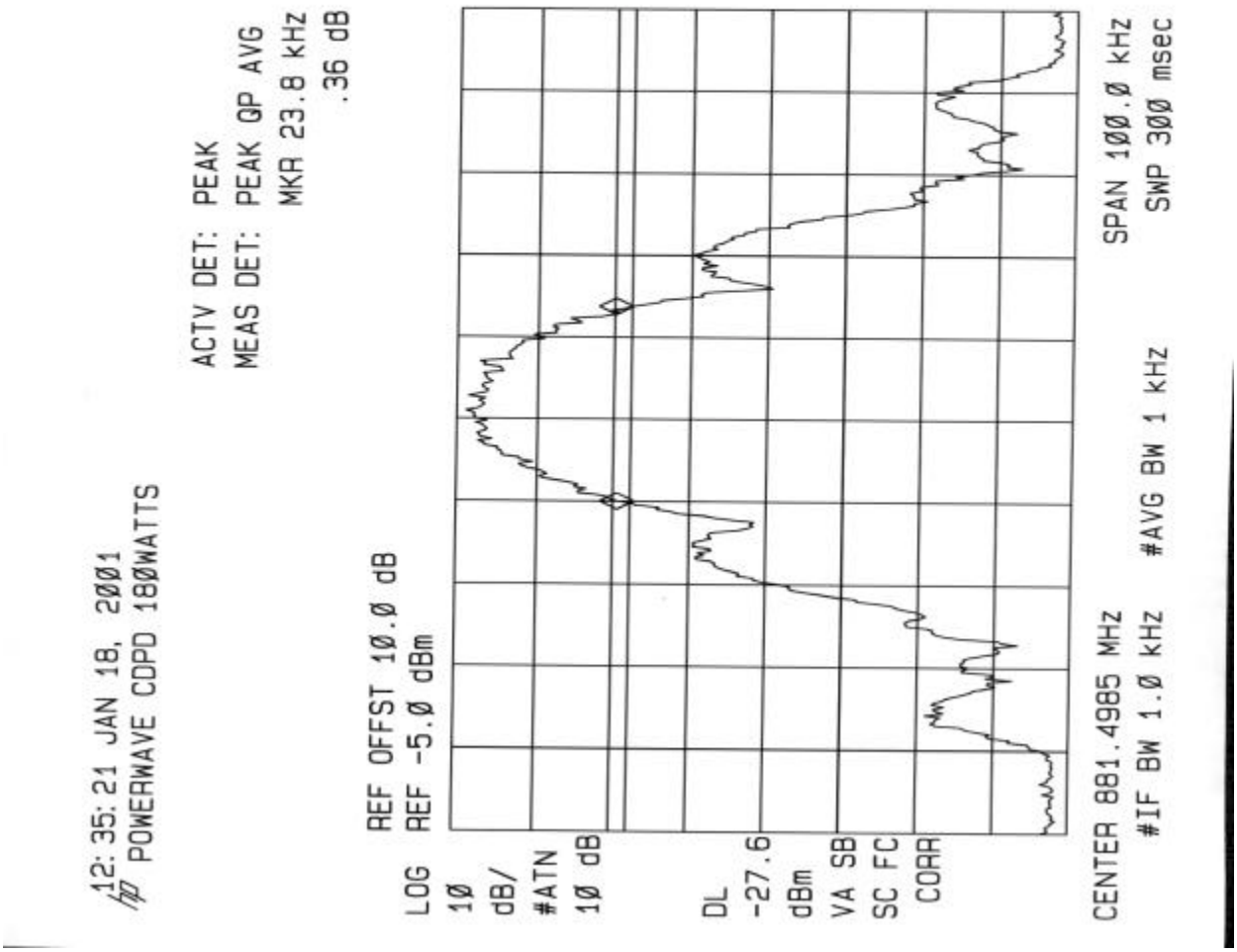
AMPS VOICE BANDWIDTH INPUT

COMPLIANCE CERTIFICATION SERVICES DOCUMENT NO:CCSUP4031A
561 F MONTEREY ROAD, MORGAN HILL, CA 95037 USA TEL:(408) 463-0885 FAX:(408) 463-0888
This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



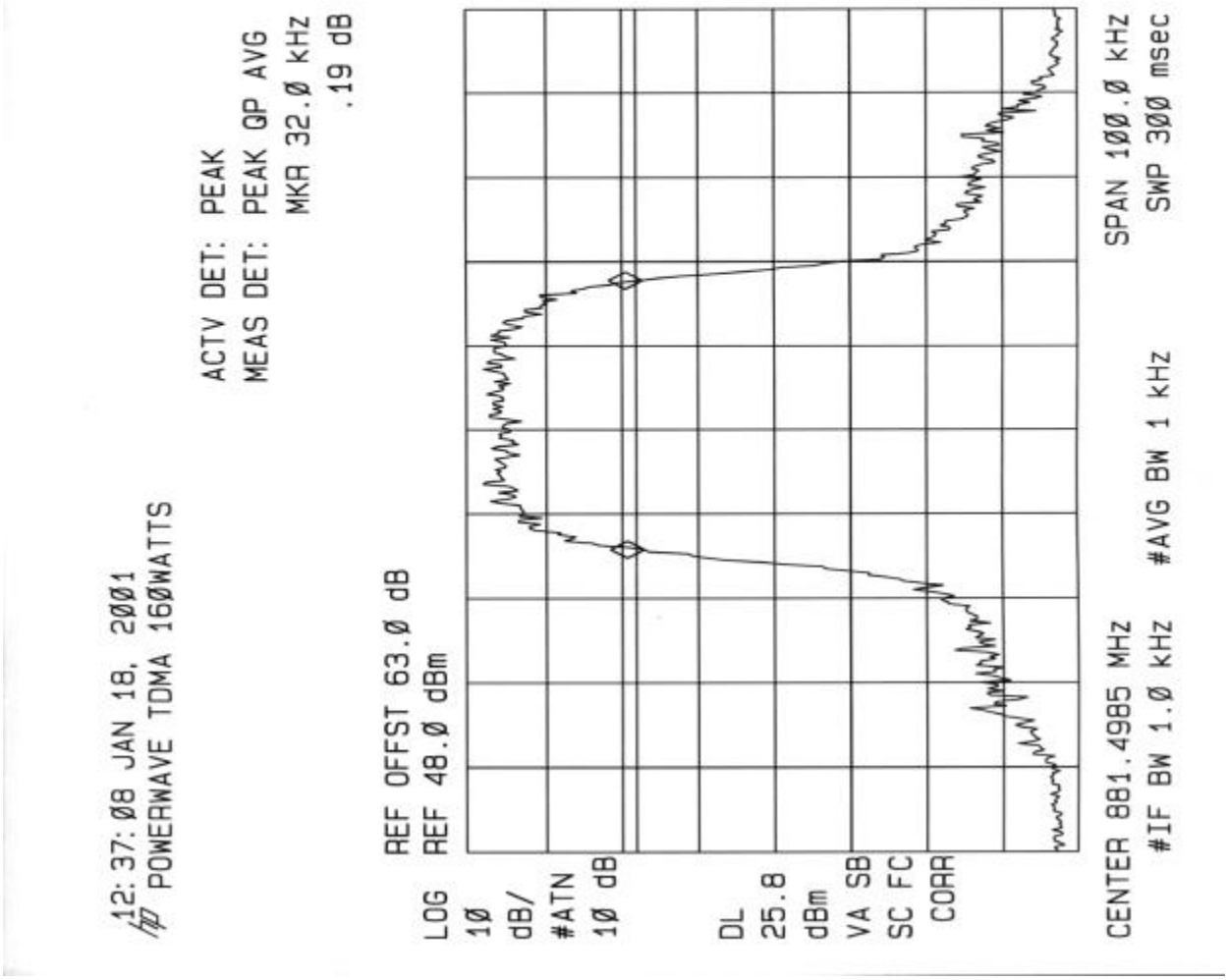
CDPD BANDWIDTH OUTPUT

COMPLIANCE CERTIFICATION SERVICES DOCUMENT NO:CCSUP4031A
561 F MONTEREY ROAD, MORGAN HILL, CA 95037 USA TEL:(408) 463-0885 FAX:(408) 463-0888
This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



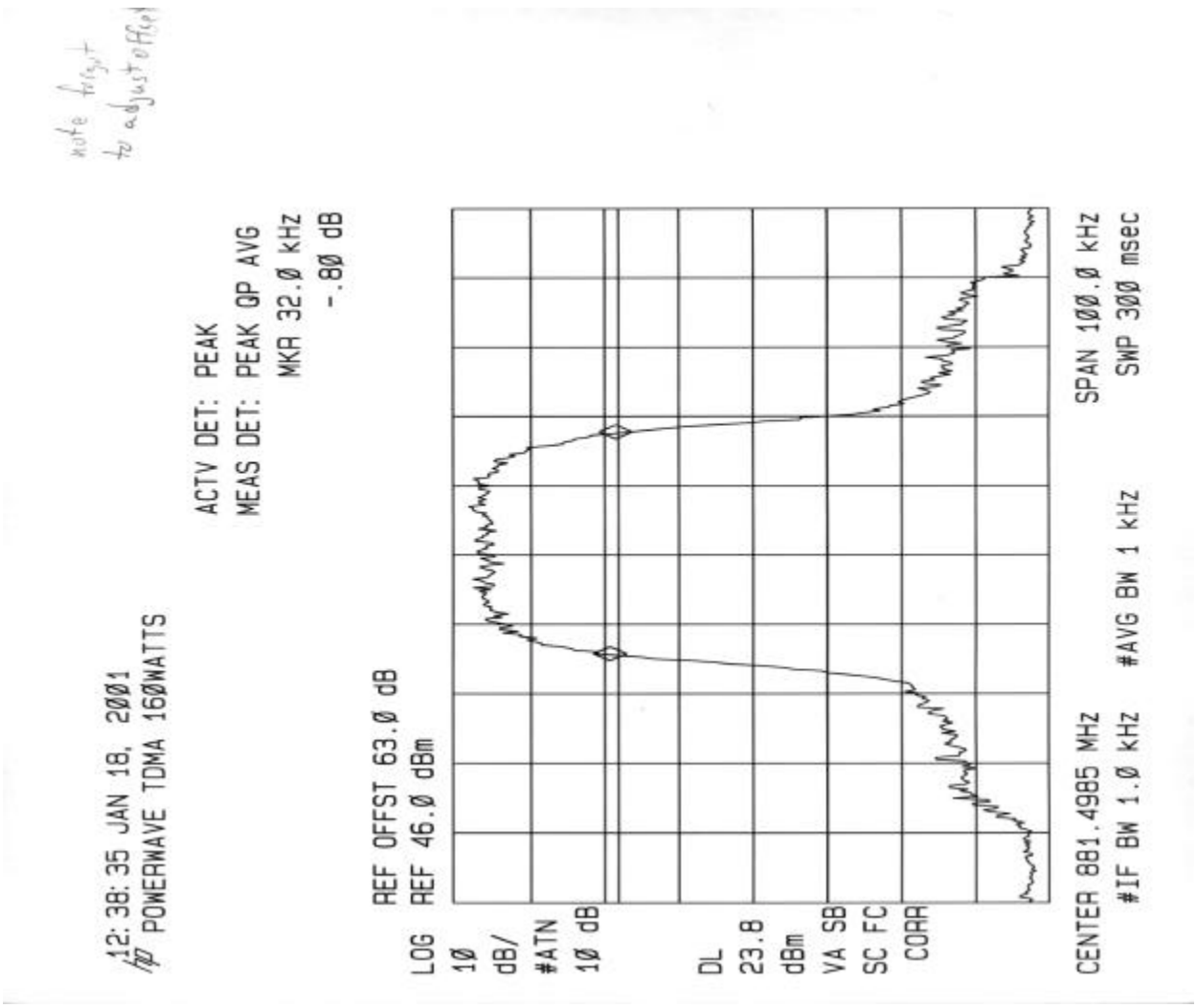
CDPD BANDWIDTH INPUT

COMPLIANCE CERTIFICATION SERVICES DOCUMENT NO:CCSUP4031A
561 F MONTEREY ROAD, MORGAN HILL, CA 95037 USA TEL:(408) 463-0885 FAX:(408) 463-0888
This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



TDMA BANDWIDTH OUTPUT

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



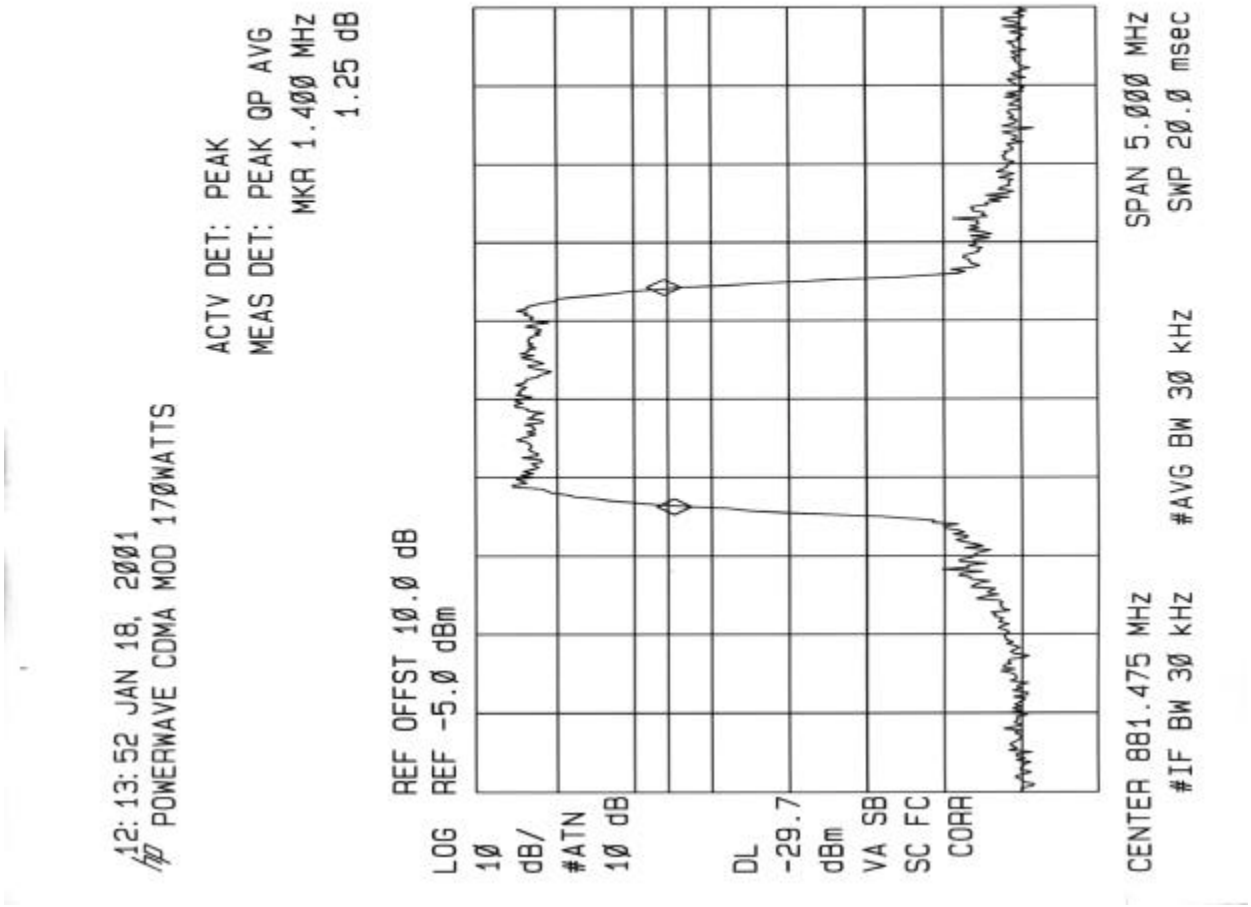
TDMA BANDWIDTH INPUT

NOTE: INPUT SIGNAL DISPLAY MISTAKENLY. NOT UPDATED TO REMOVE REF LVL OFFSET.

CORRECT REF LVL OFFSET: 10dB

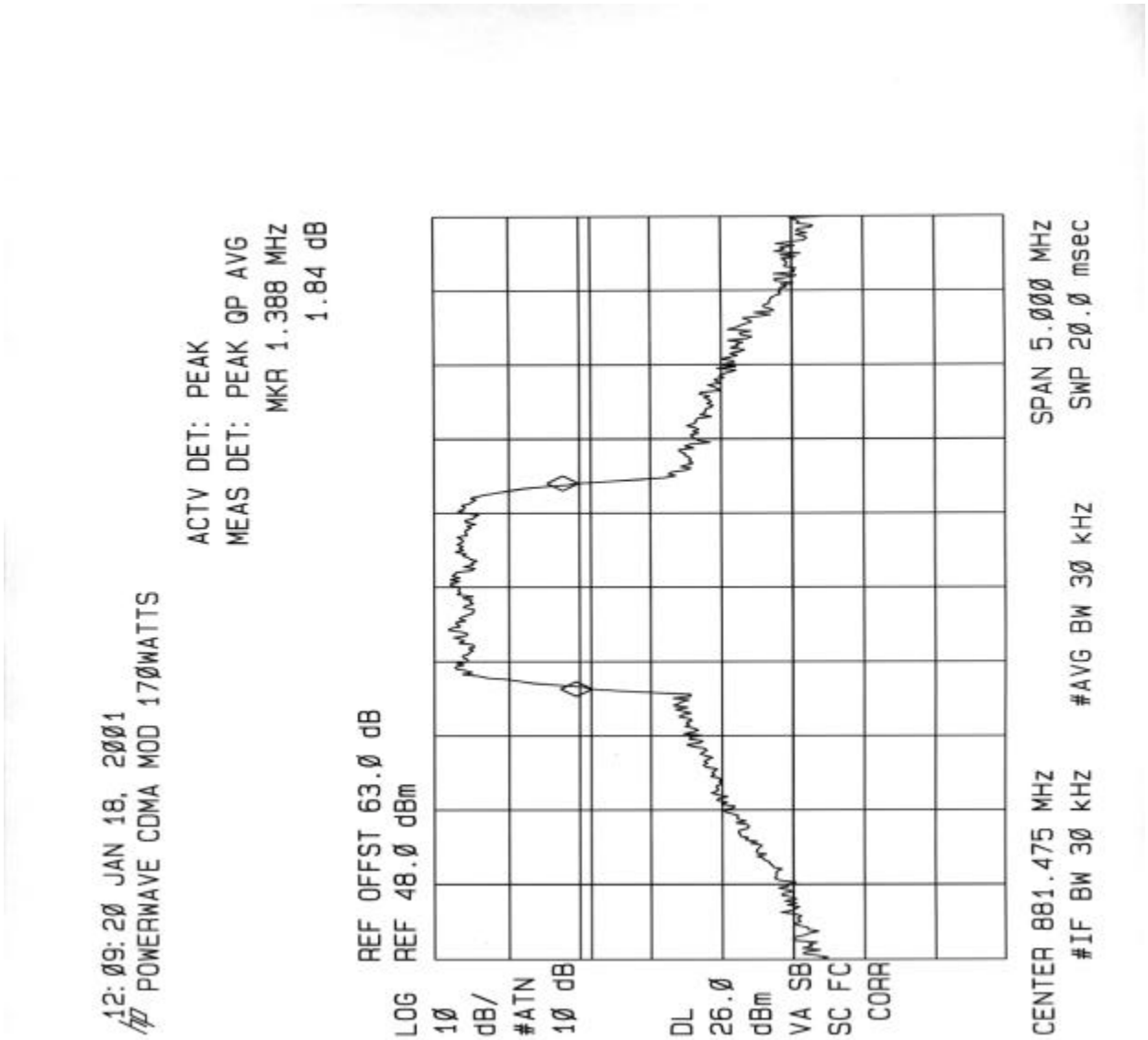
CORRECT REF LVL: -5dBm

COMPLIANCE CERTIFICATION SERVICES DOCUMENT NO:CCSUP4031A
561 F MONTEREY ROAD, MORGAN HILL, CA 95037 USA TEL:(408) 463-0885 FAX:(408) 463-0888
This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



CDMA MODULATION BANDWIDTH INPUT

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.

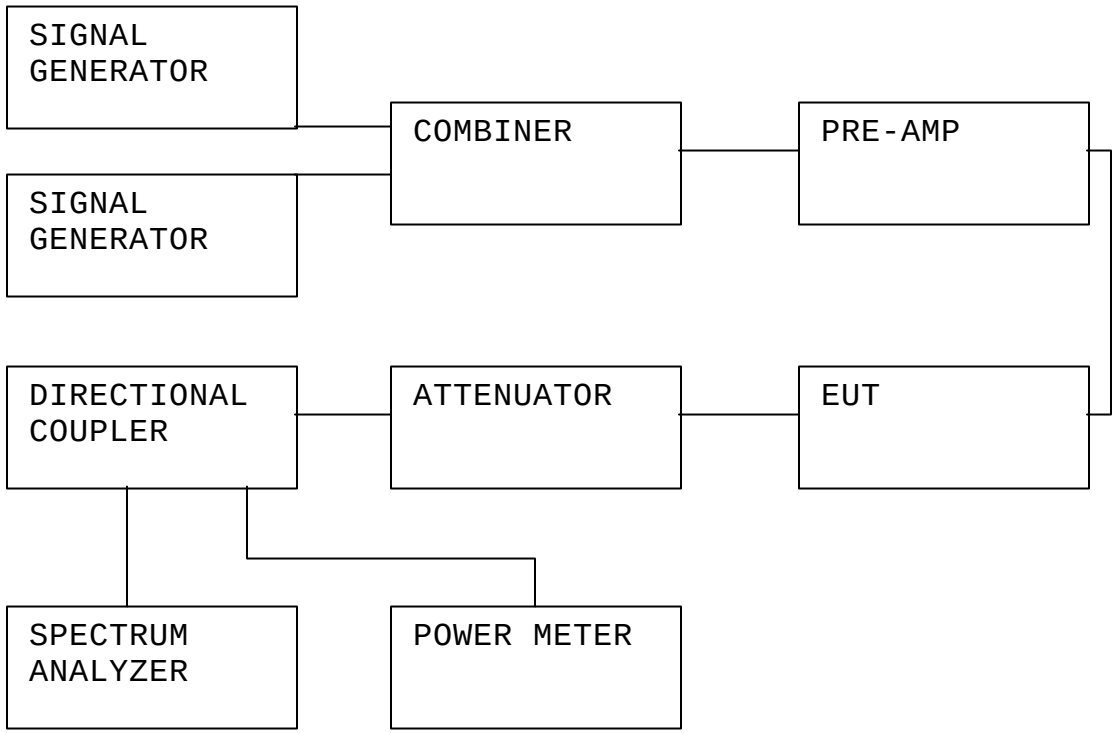


CDMA MODULATION BANDWIDTH OUTPUT

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.

SECTION 2.1051: SPURIOUS EMISSION AT ANTENNA TERMINALS

TEST SETUP:

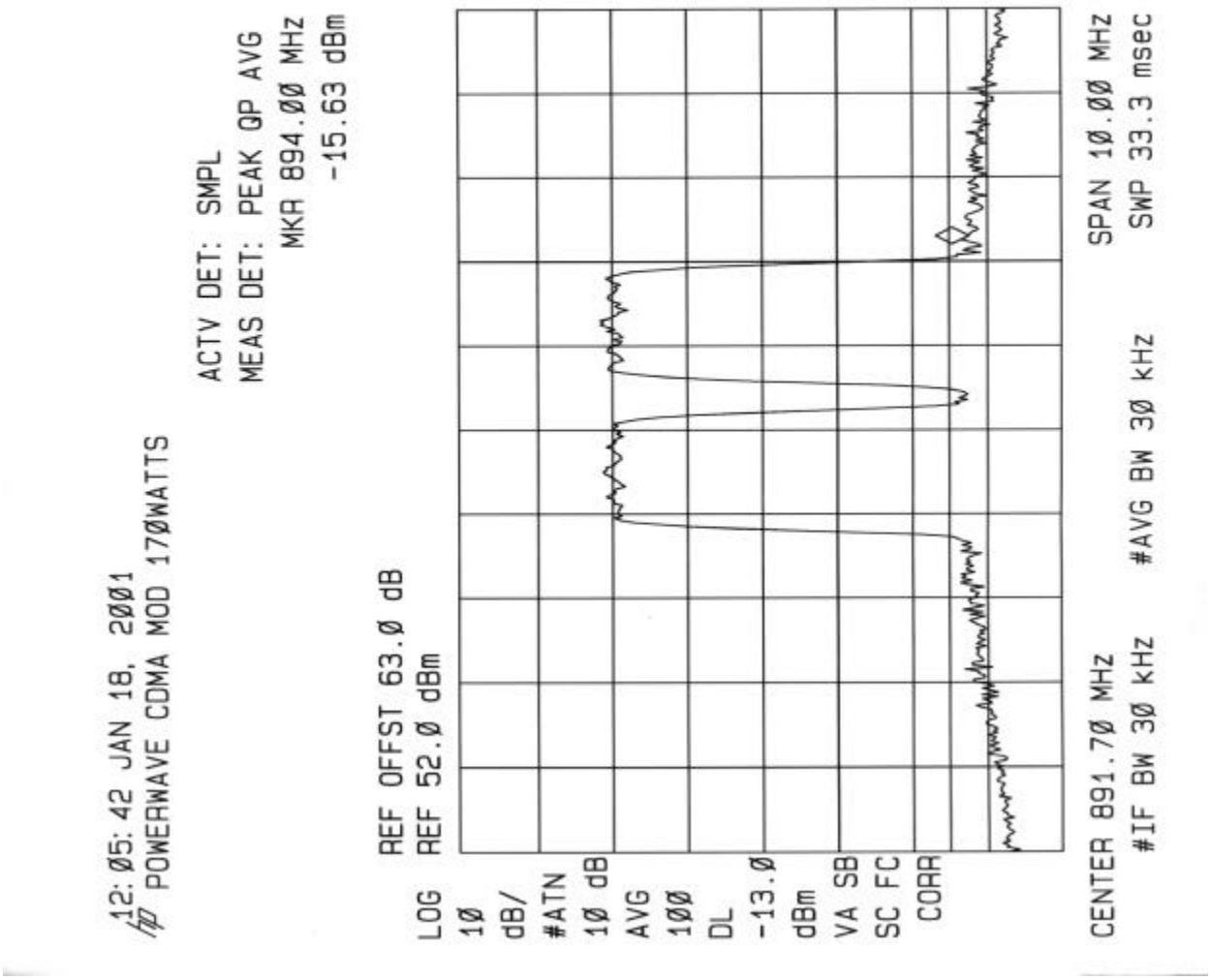


Minimum Requirement:
Section 22.917(e):
For Base stations transmitters the magnitude of each spurious, harmonic, and intermodulation emissions that can be detected when the equipment is operated under conditions specified in the instruction manual and/or alignment procedure, shall not be more than 43 + 10 log (P) dBc below the mean power output, which is equivalent to –13 dBm.

Test Procedure:
Input 2 modulated signals to the amp to produce 180 watts composite power. Set the RES Bw: 30kHz and the DISPLAY LINE to –13dBm. Scan the Eut from 1MHz to the 10th harmonic of carrier and check for spurious, harmonic, and intermodulation emissions.

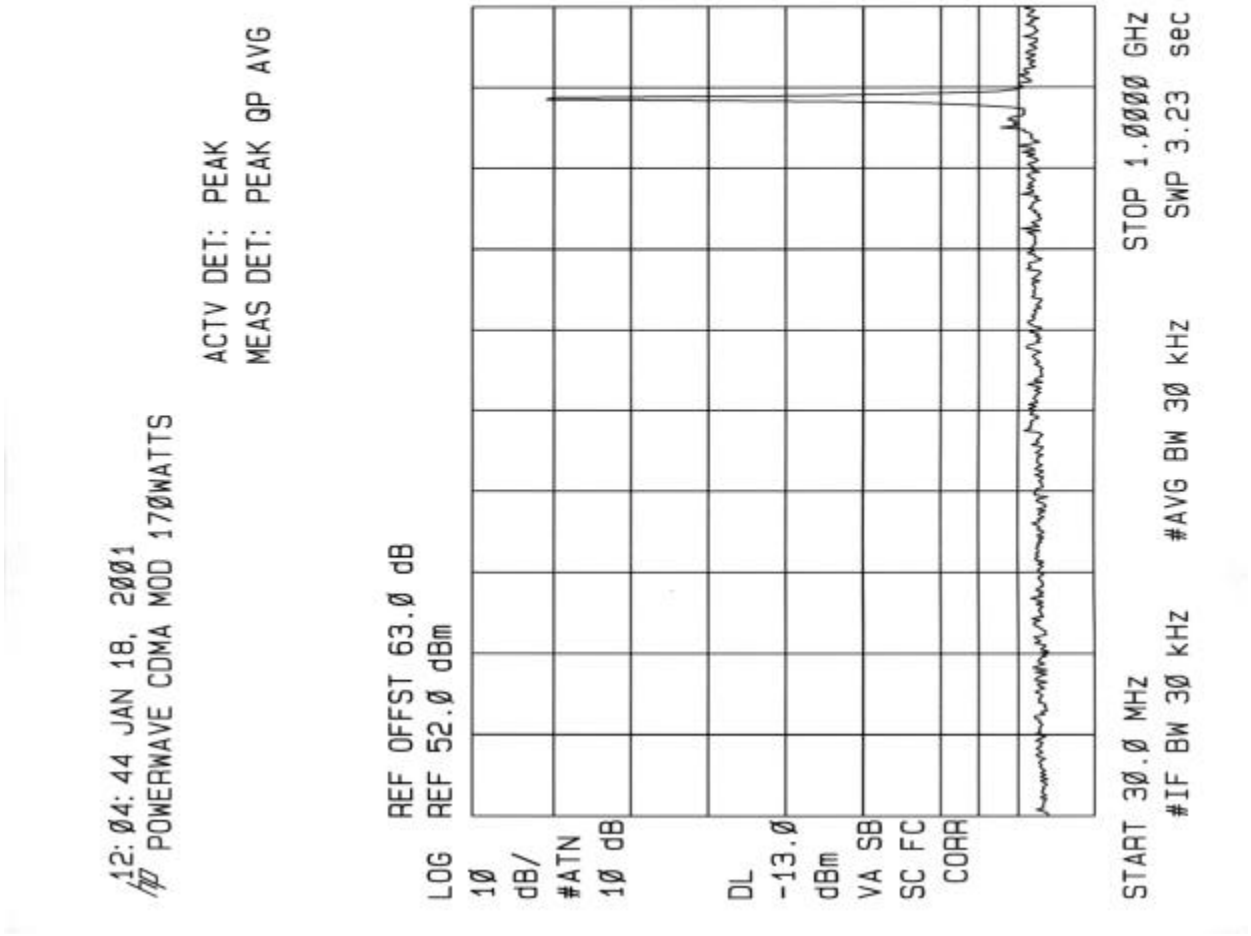
Test Result:
Plots were taken with 2 inputs at the high end of the band and with 2 inputs at the low end of the band. Plots were of the intermodulation products and of the out-of-band emissions from 1MHz to the 10th harmonic of the carrier frequency.

COMPLIANCE CERTIFICATION SERVICES DOCUMENT NO:CCSUP4031A
561 F MONTEREY ROAD, MORGAN HILL, CA 95037 USA TEL:(408) 463-0885 FAX:(408) 463-0888
This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



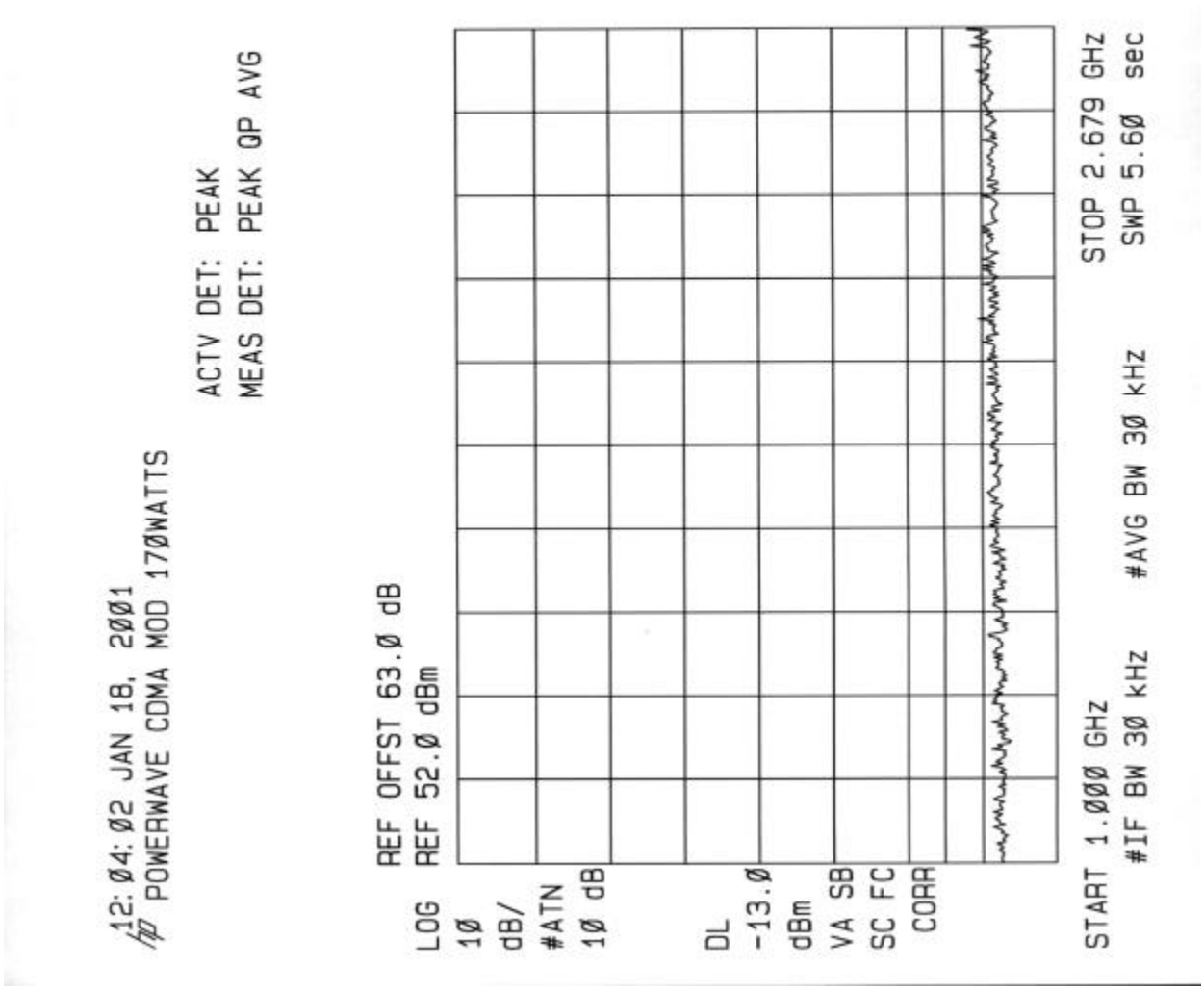
HIGH END OF BAND
(CDMA MODULATION)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



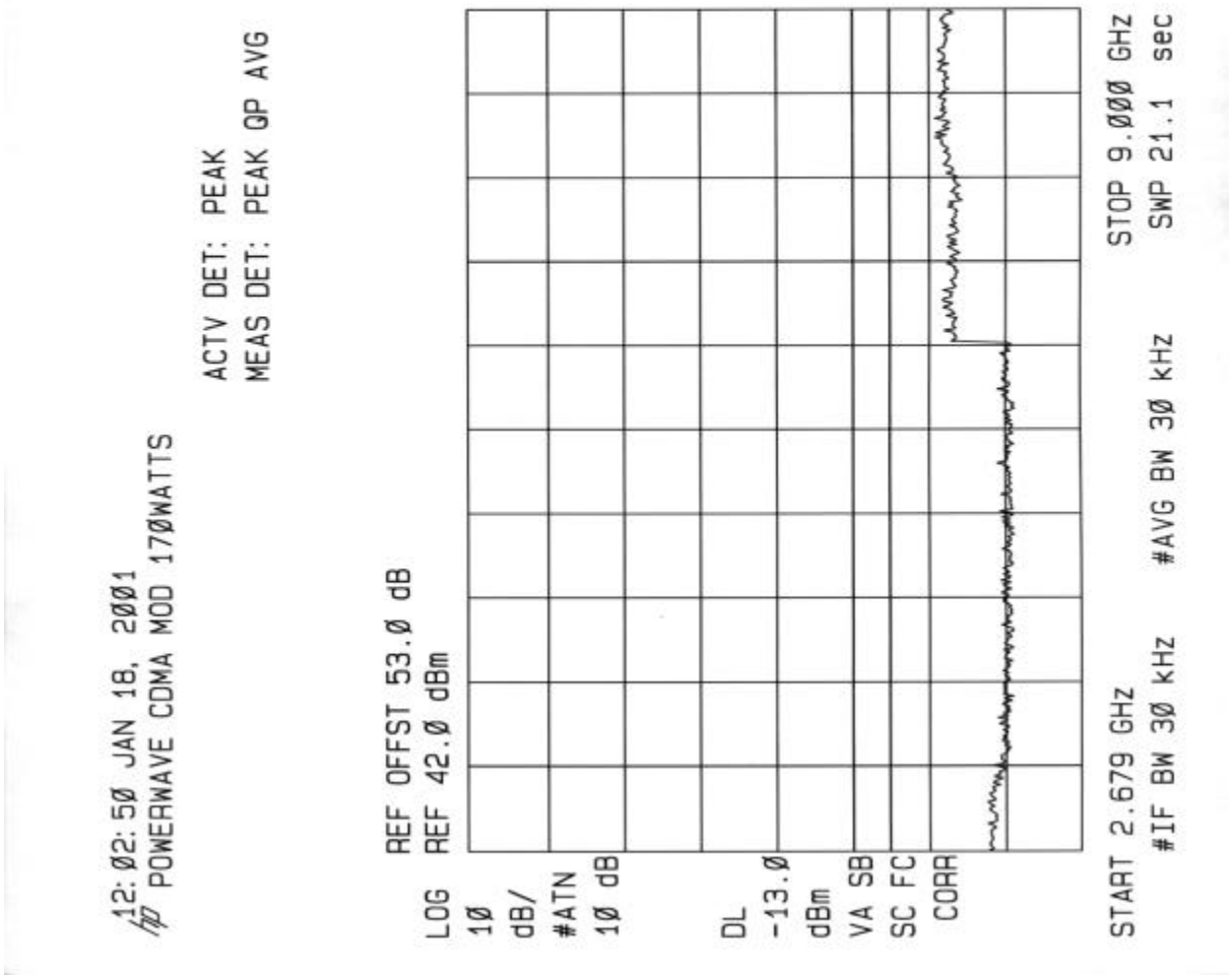
HIGH END OF BAND
(CDMA MODULATION)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



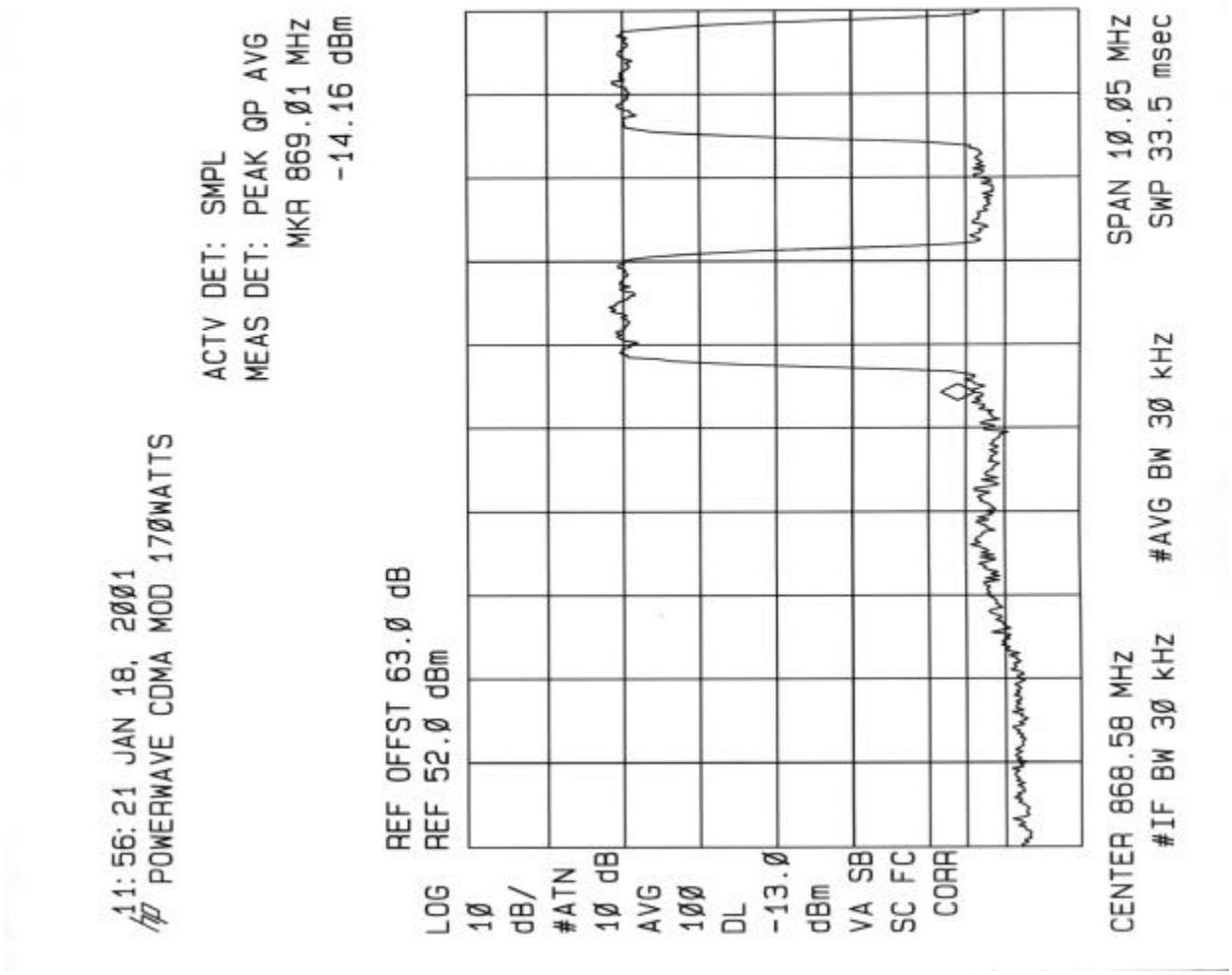
HIGH END OF BAND
(CDMA MODULATION)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



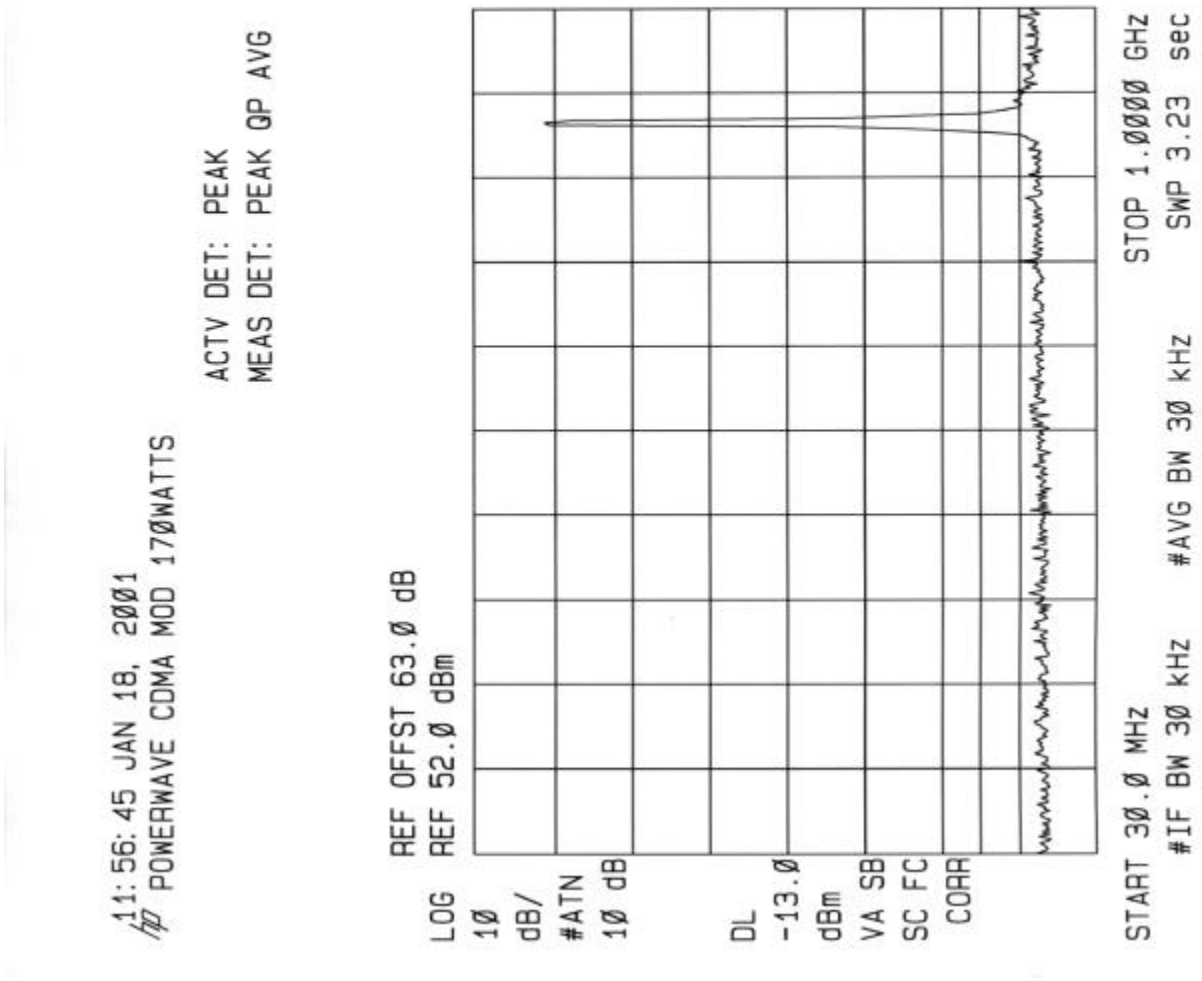
HIGH END OF BAND
(CDMA MODULATION)

COMPLIANCE CERTIFICATION SERVICES DOCUMENT NO:CCSUP4031A
561 F MONTEREY ROAD, MORGAN HILL, CA 95037 USA TEL:(408) 463-0885 FAX:(408) 463-0888
This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



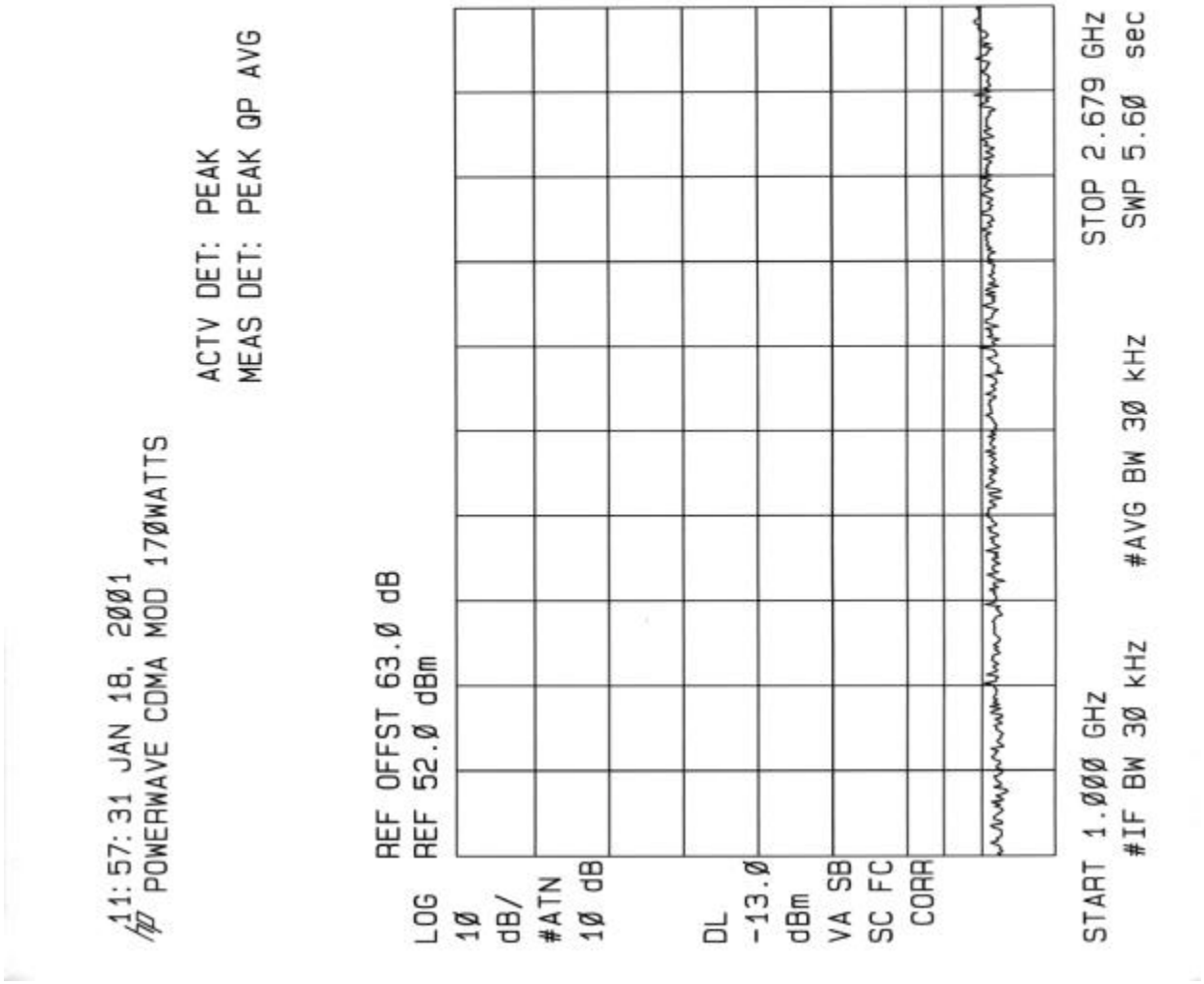
LOW END OF BAND
(CDMA MODULATION)

COMPLIANCE CERTIFICATION SERVICES DOCUMENT NO:CCSUP4031A
561 F MONTEREY ROAD, MORGAN HILL, CA 95037 USA TEL:(408) 463-0885 FAX:(408) 463-0888
This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



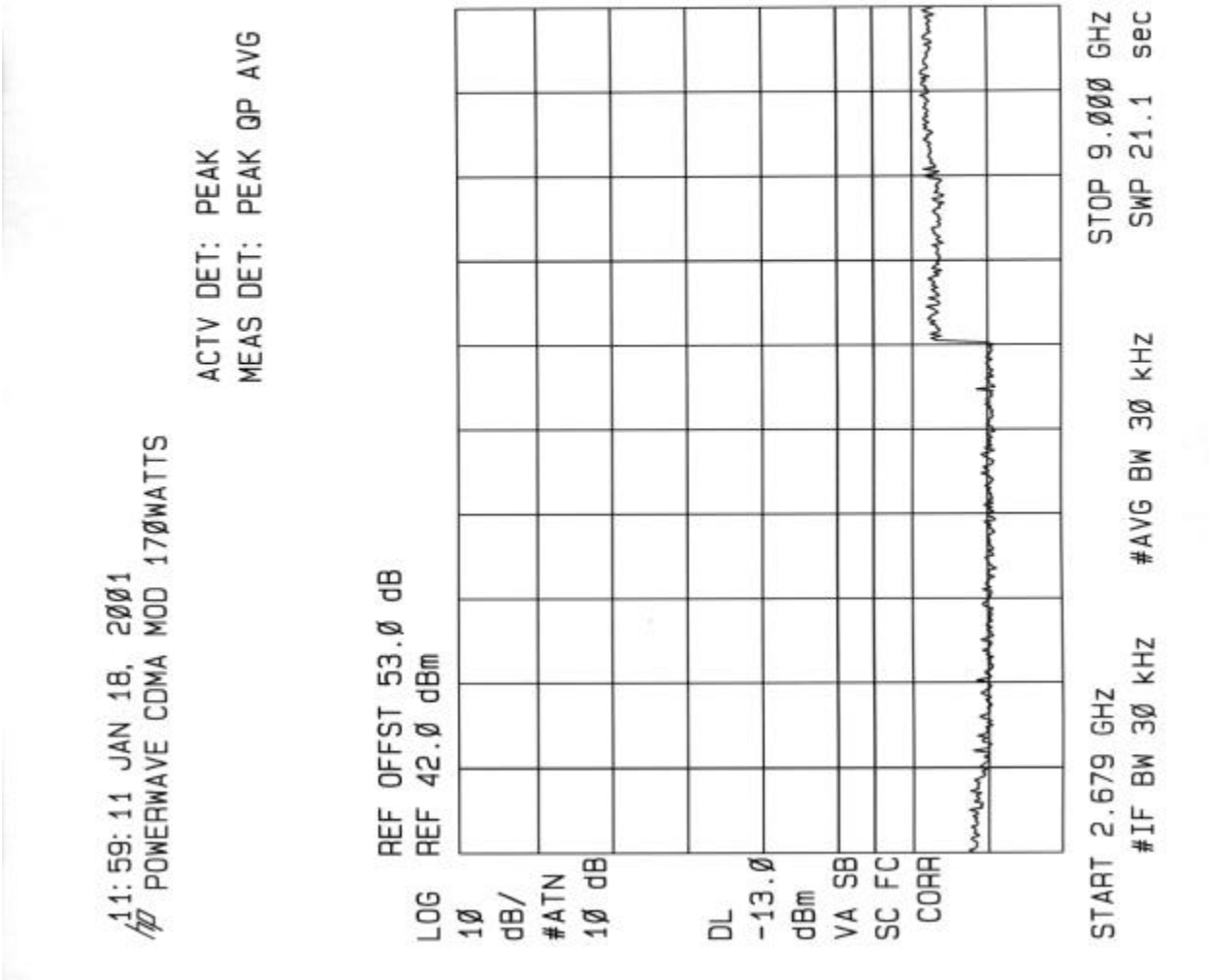
LOW END OF BAND
(CDMA MODULATION)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



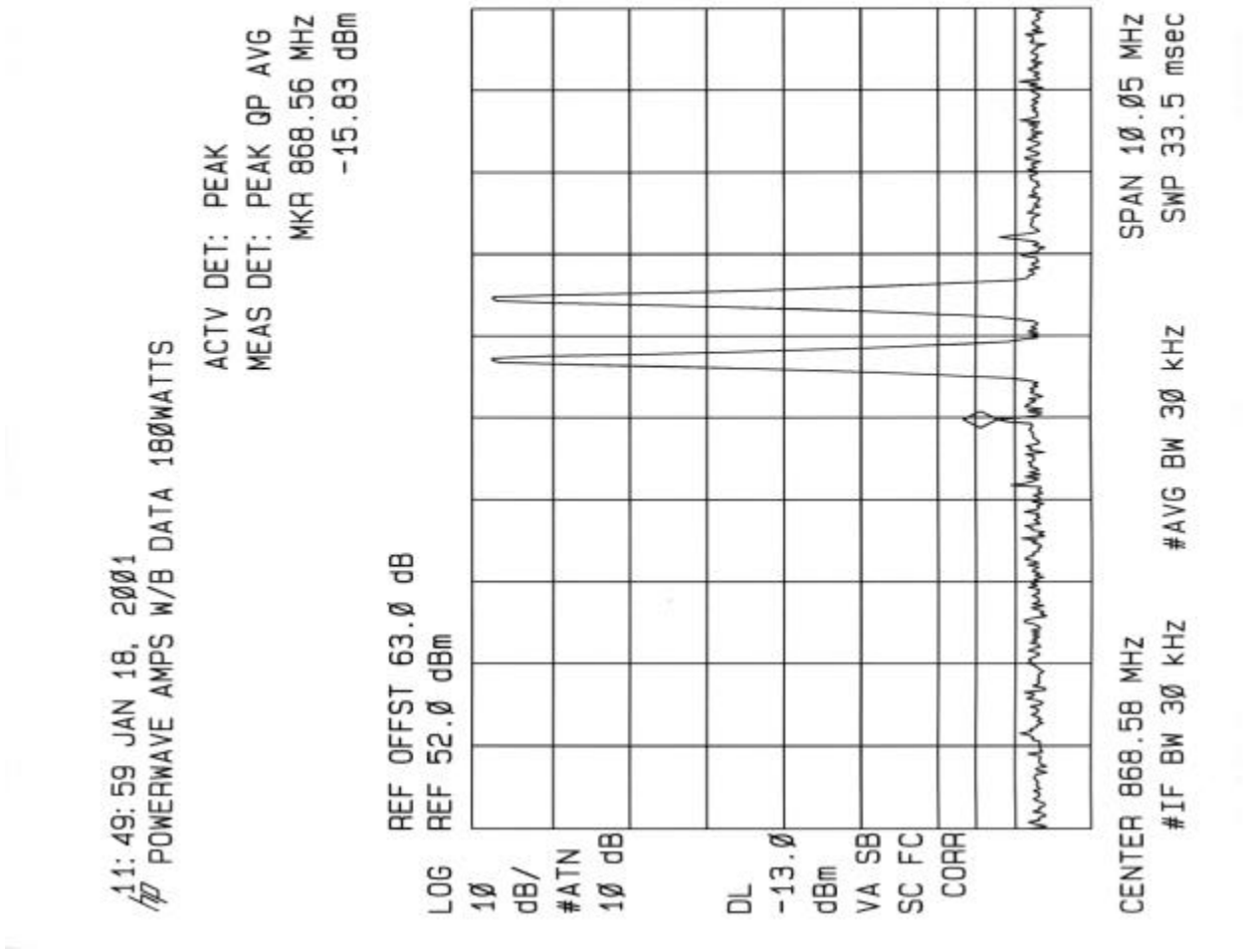
LOW END OF BAND
(CDMA MODULATION)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



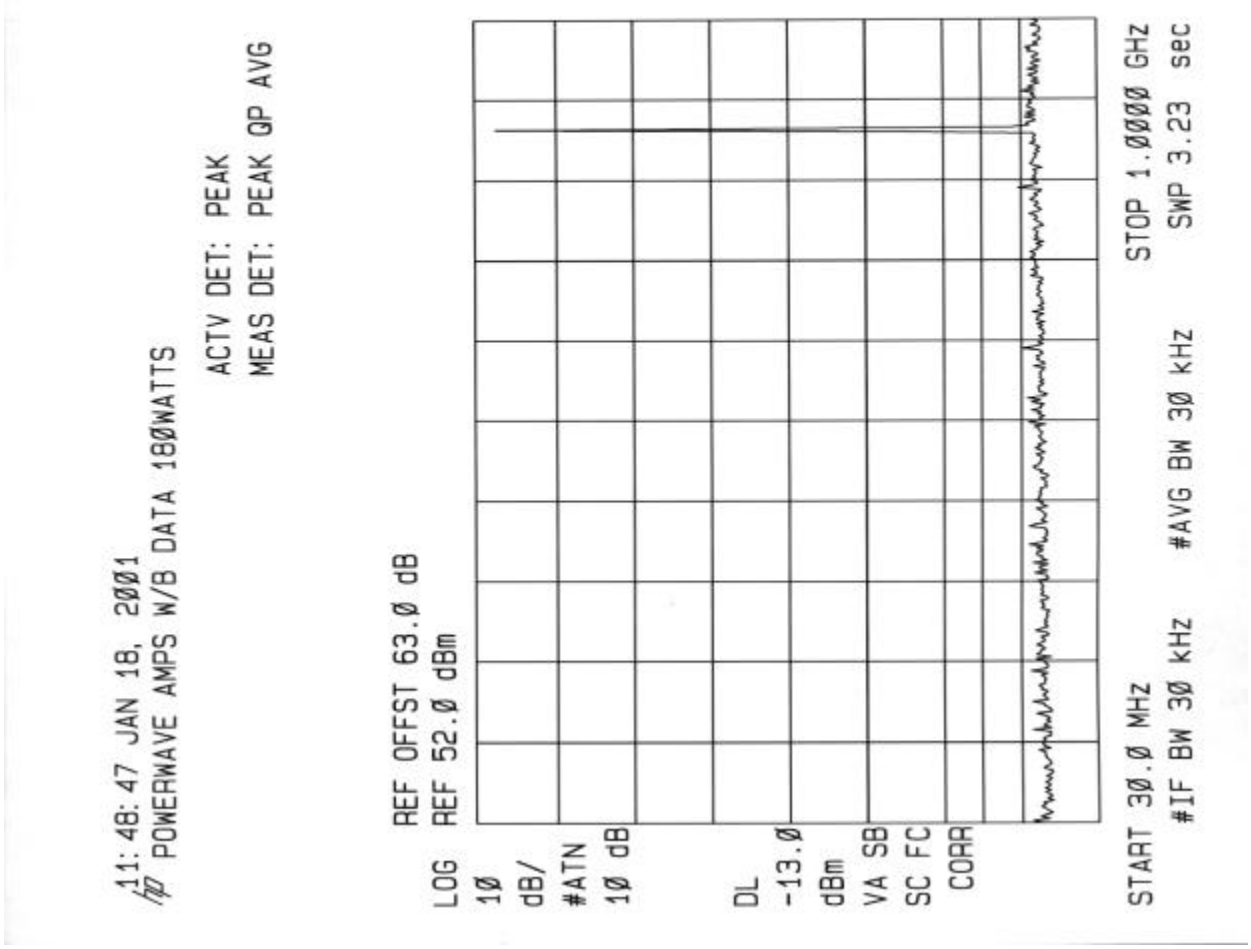
LOW END OF BAND
(CDMA MODULATION)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



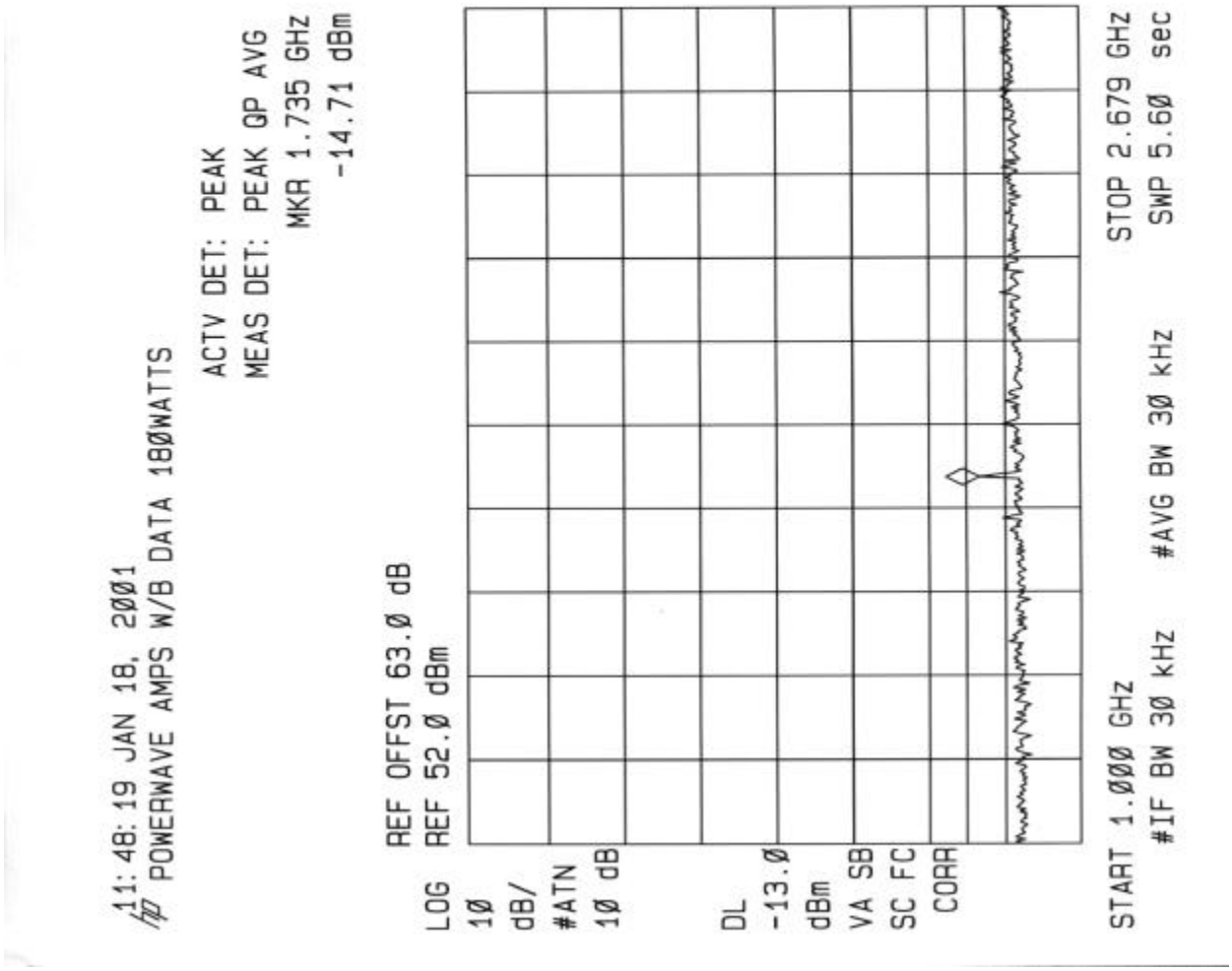
LOW END OF BAND
(AMPS WITH BANDWIDTH DATA)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



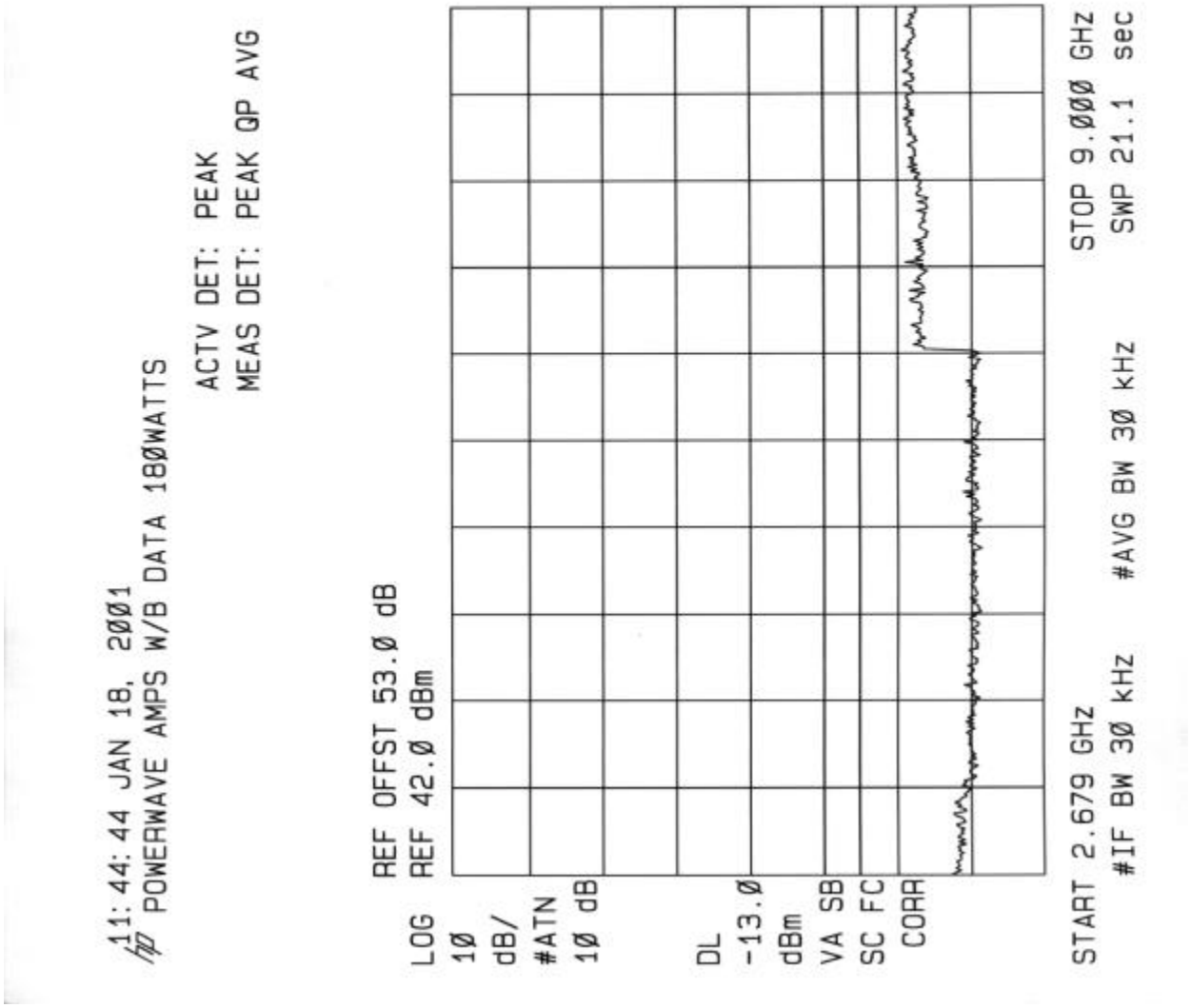
LOW END OF BAND
(AMPS WITH BANDWIDTH DATA)

COMPLIANCE CERTIFICATION SERVICES DOCUMENT NO:CCSUP4031A
561 F MONTEREY ROAD, MORGAN HILL, CA 95037 USA TEL:(408) 463-0885 FAX:(408) 463-0888
This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



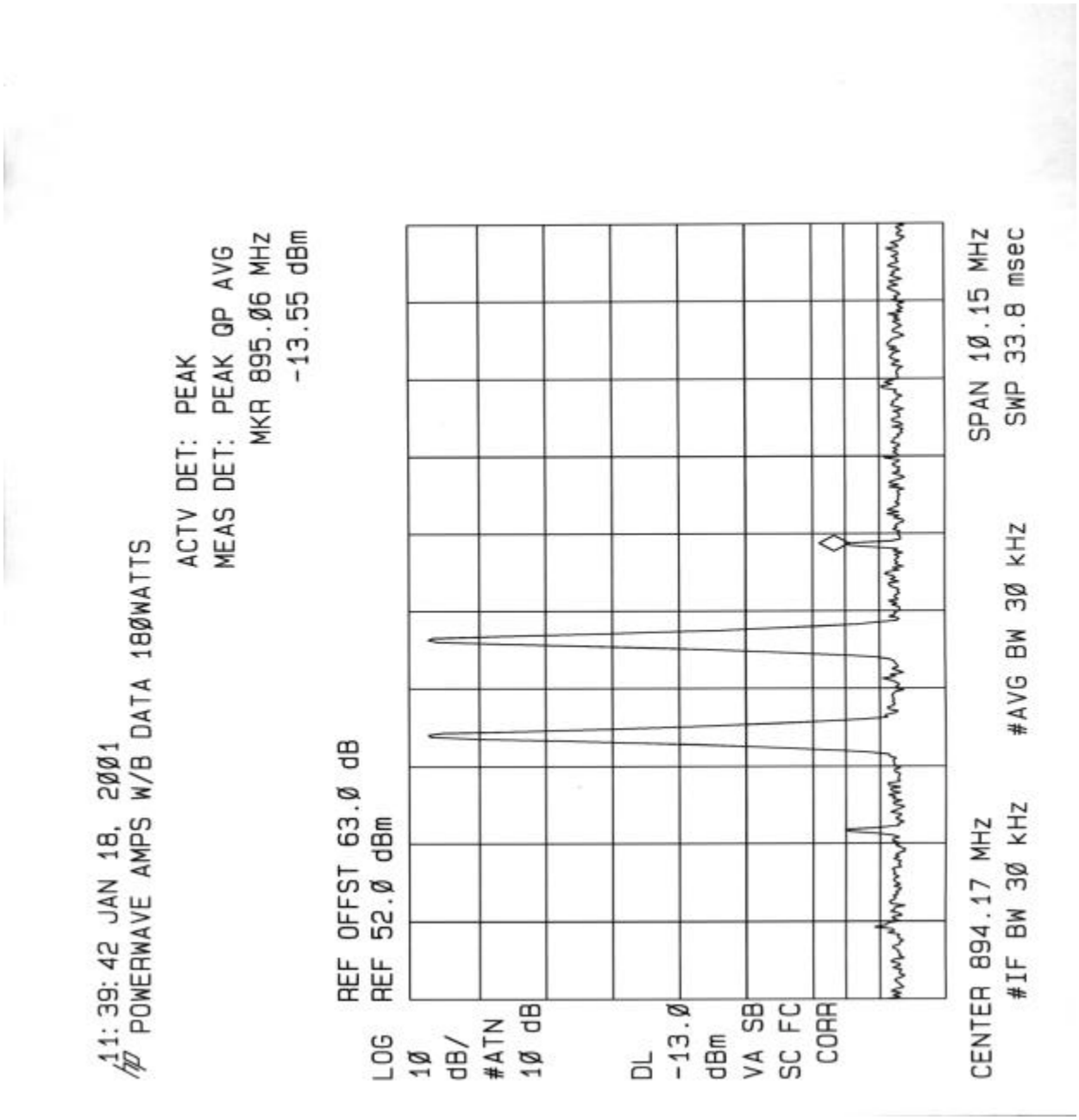
LOW END OF BAND
(AMPS WITH BANDWIDTH DATA)

COMPLIANCE CERTIFICATION SERVICES DOCUMENT NO:CCSUP4031A
561 F MONTEREY ROAD, MORGAN HILL, CA 95037 USA TEL:(408) 463-0885 FAX:(408) 463-0888
This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



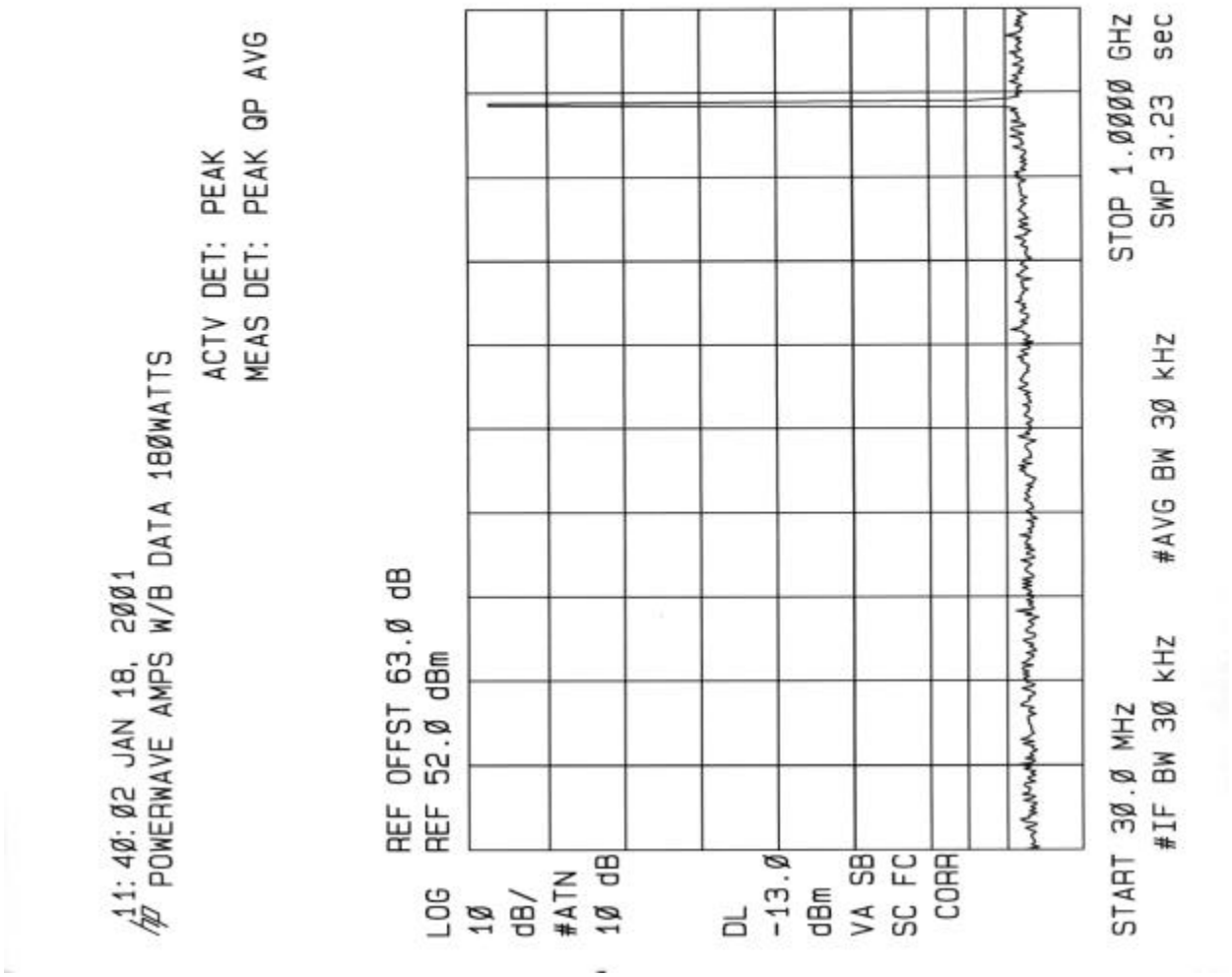
LOW END OF BAND
(AMPS WITH BANDWIDTH DATA)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



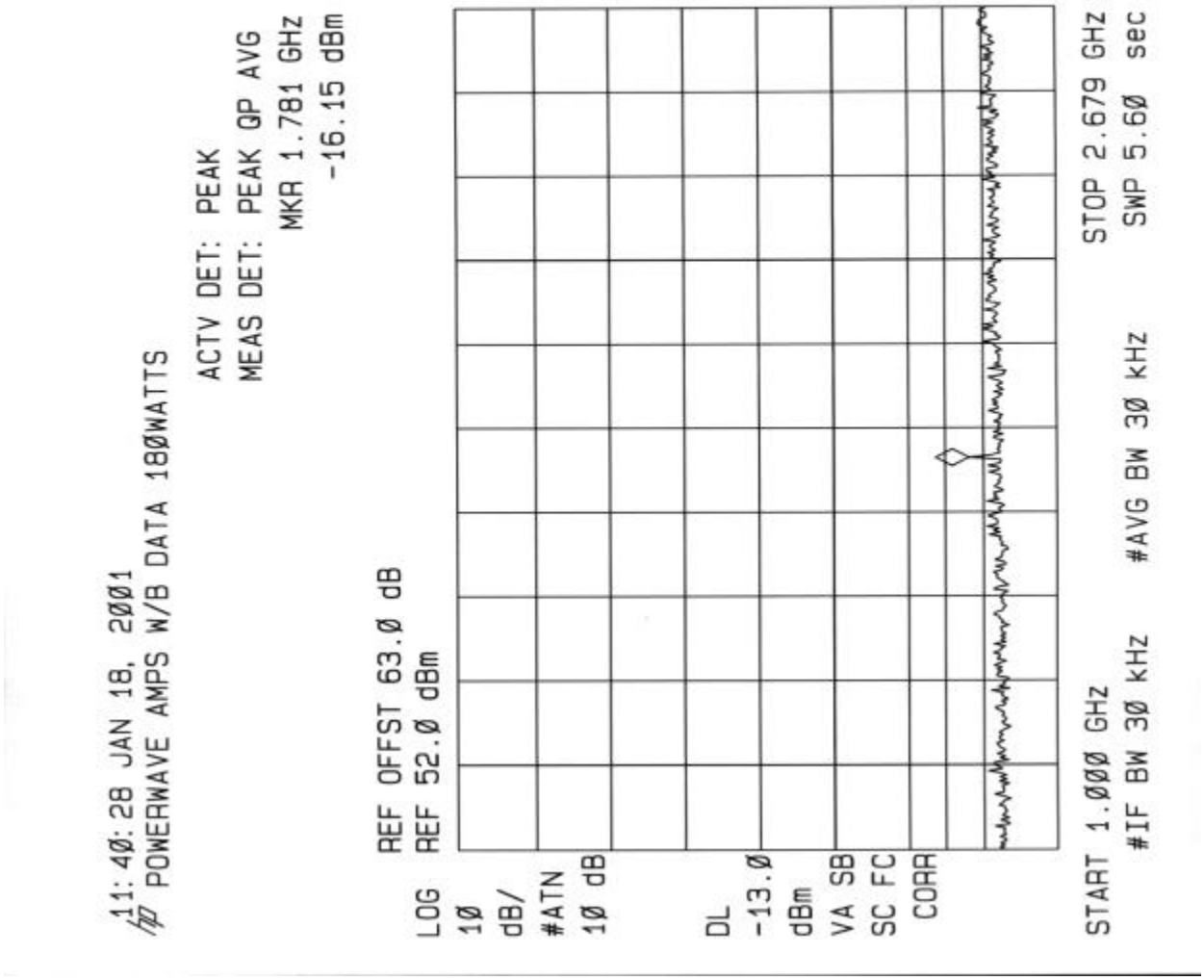
HIGH END OF BAND
(AMPS WITH BANDWIDTH DATA)

COMPLIANCE CERTIFICATION SERVICES DOCUMENT NO:CCSUP4031A
561 F MONTEREY ROAD, MORGAN HILL, CA 95037 USA TEL:(408) 463-0885 FAX:(408) 463-0888
This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



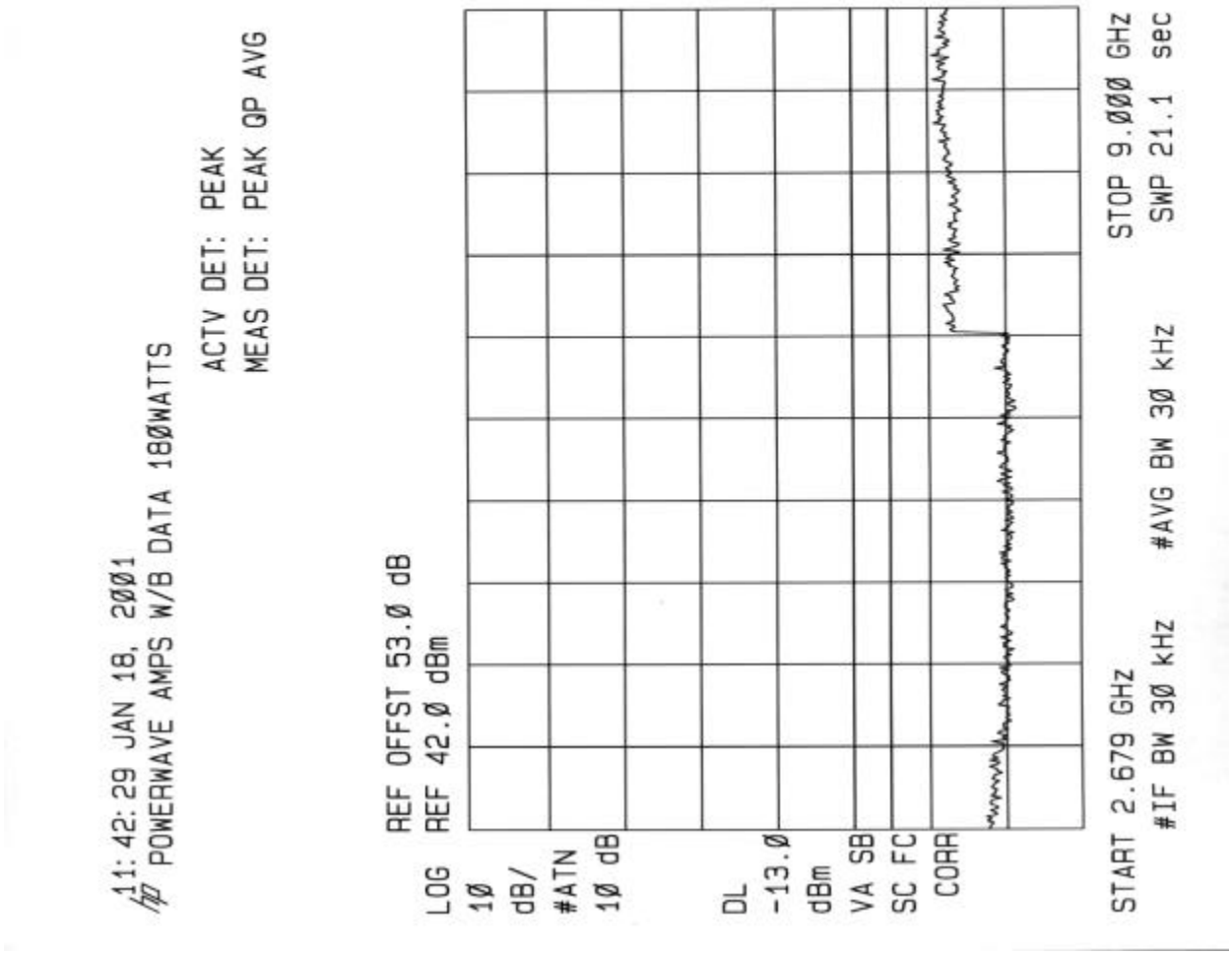
HIGH END OF BAND
(AMPS WITH BANDWIDTH DATA)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



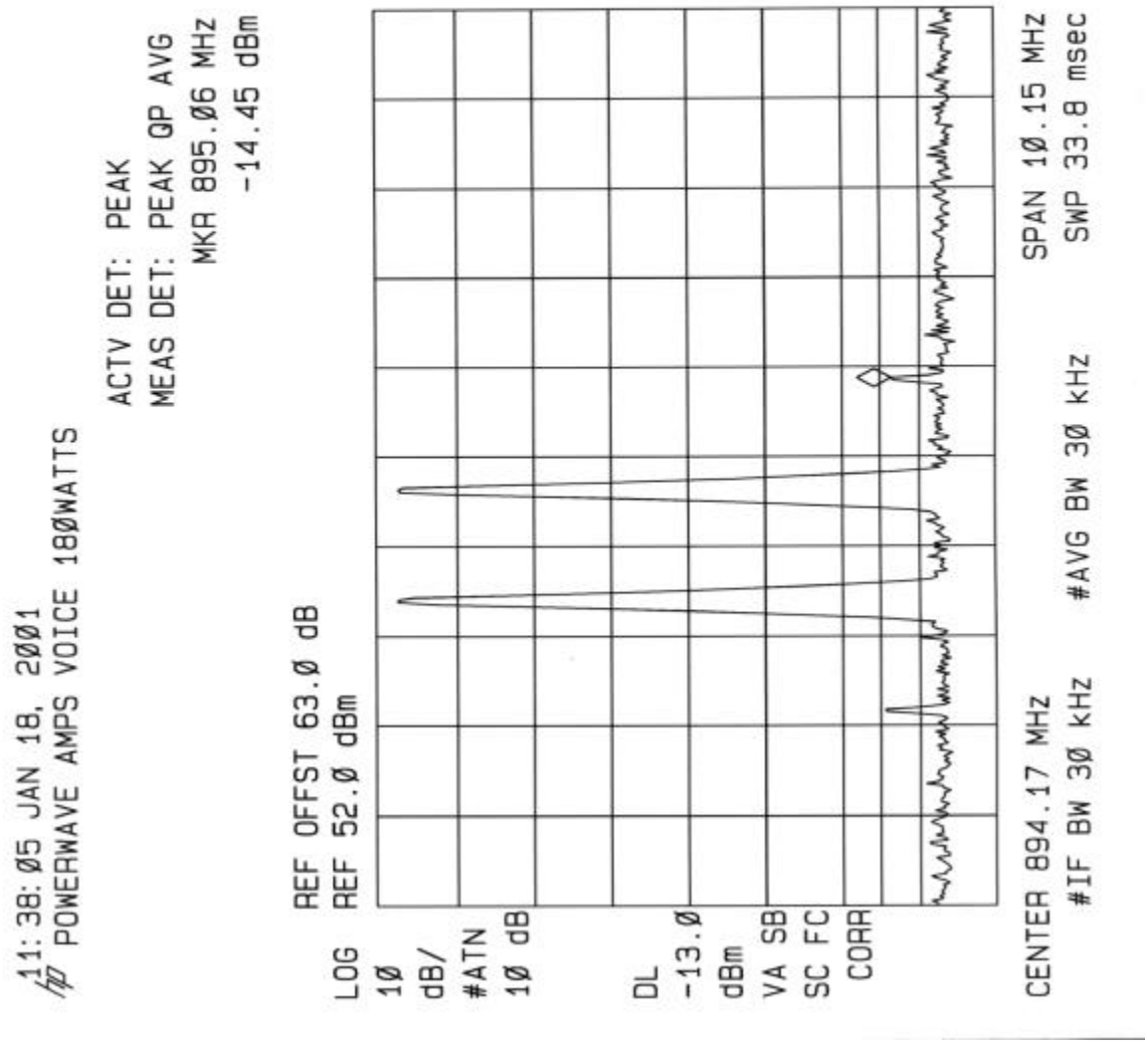
HIGH END OF BAND
(AMPS WITH BANDWIDTH DATA)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



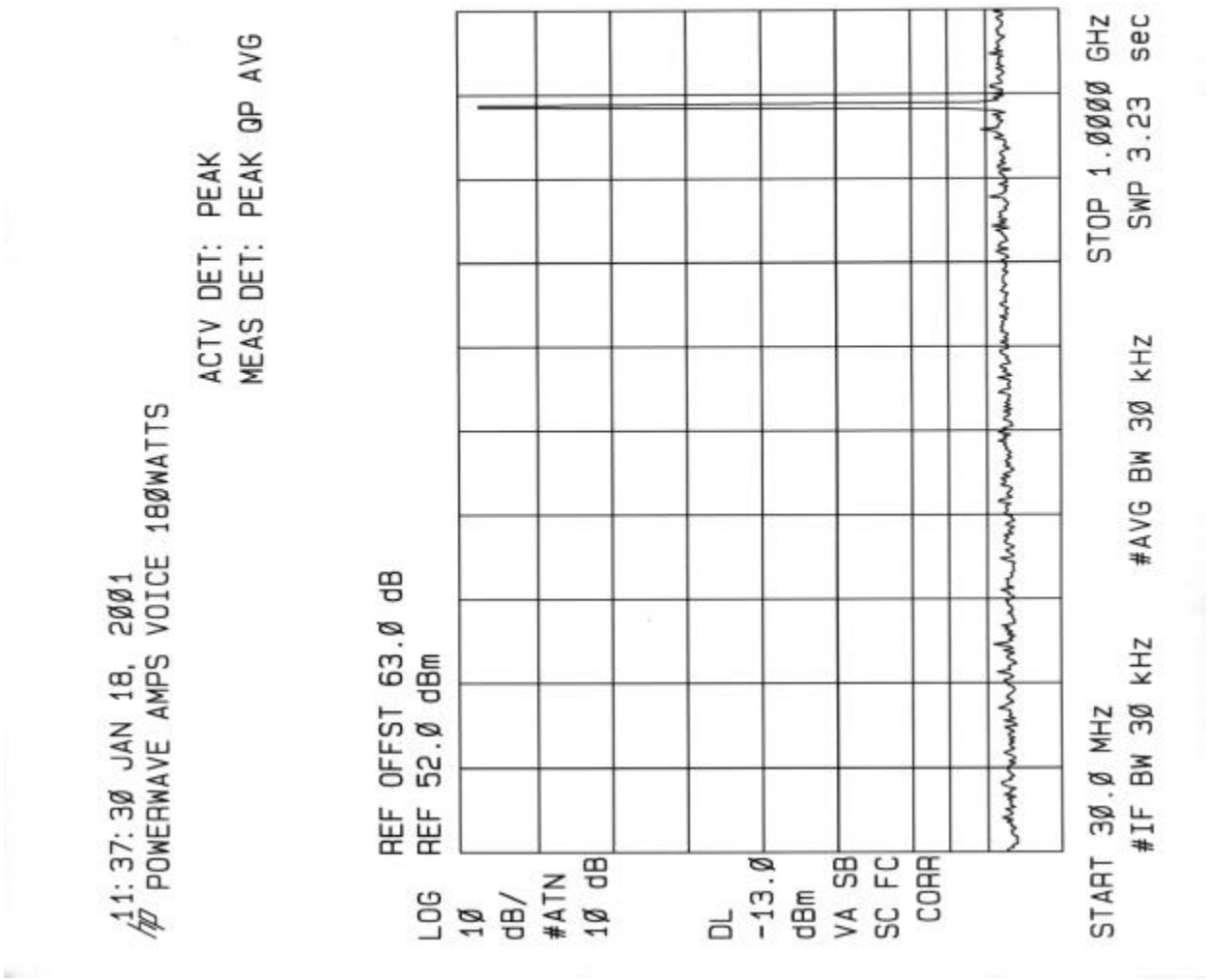
HIGH END OF BAND
(AMPS WITH BANDWIDTH DATA)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



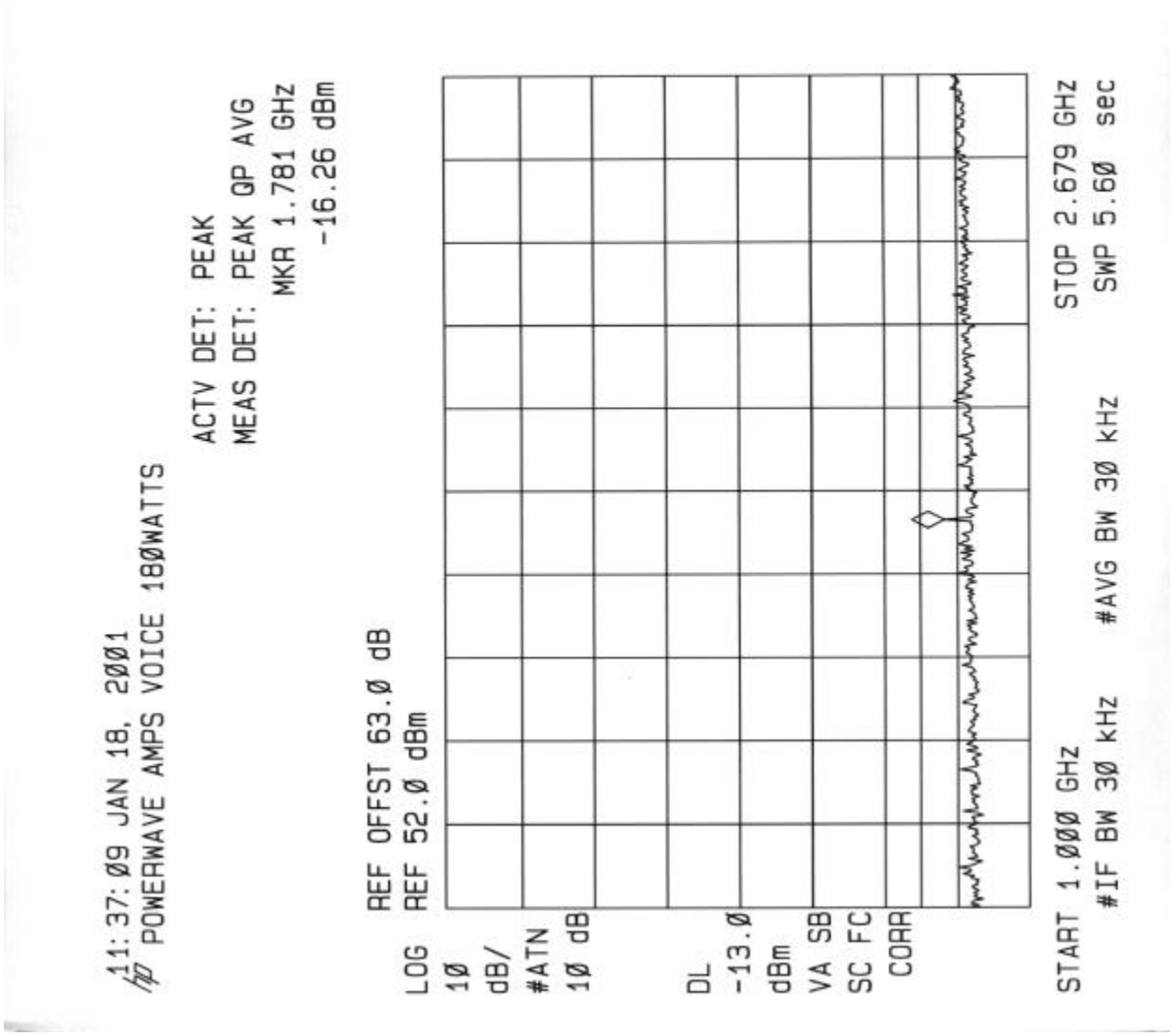
HIGH END OF BAND
(AMPS VOICE)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



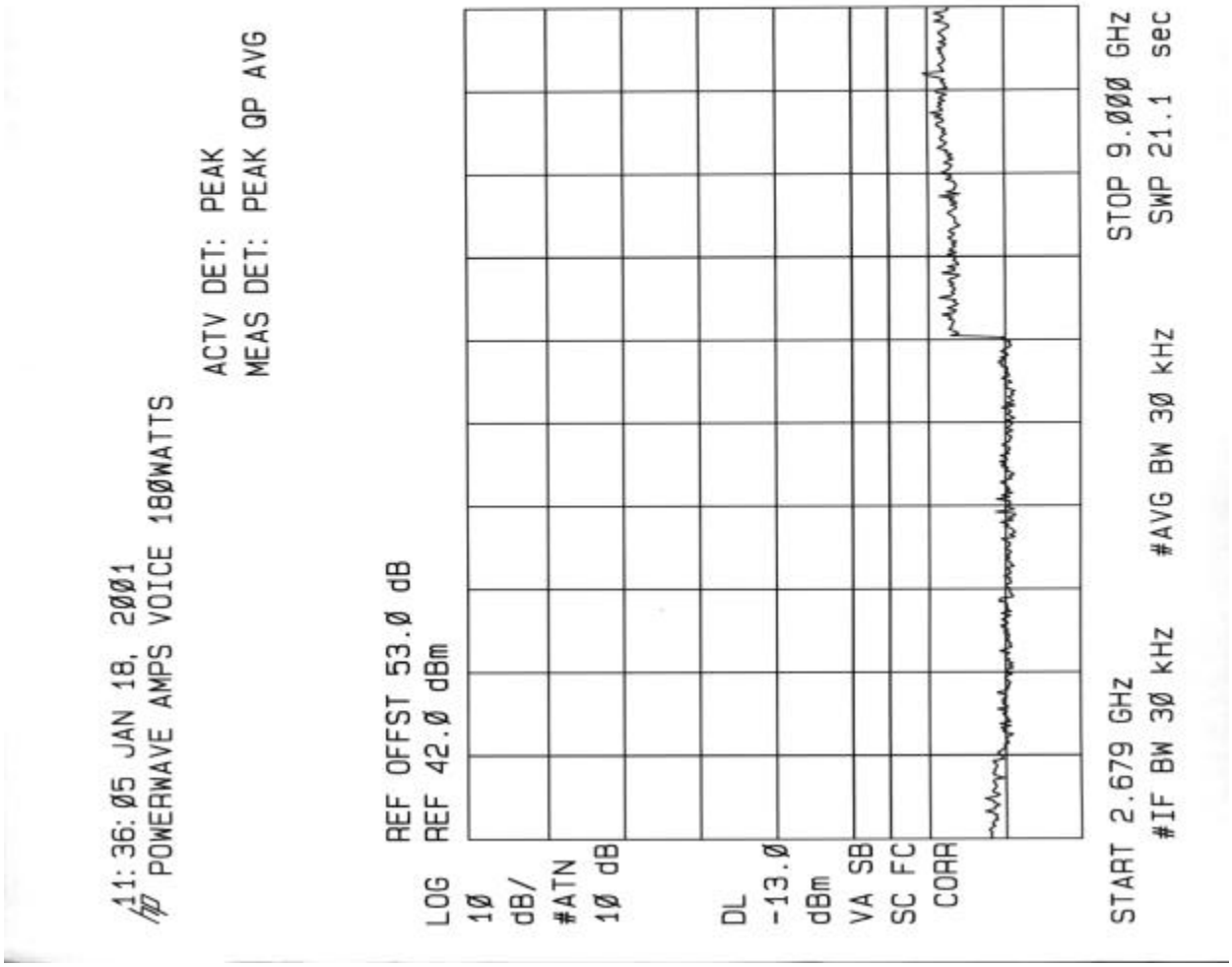
HIGH END OF BAND
(AMPS VOICE)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



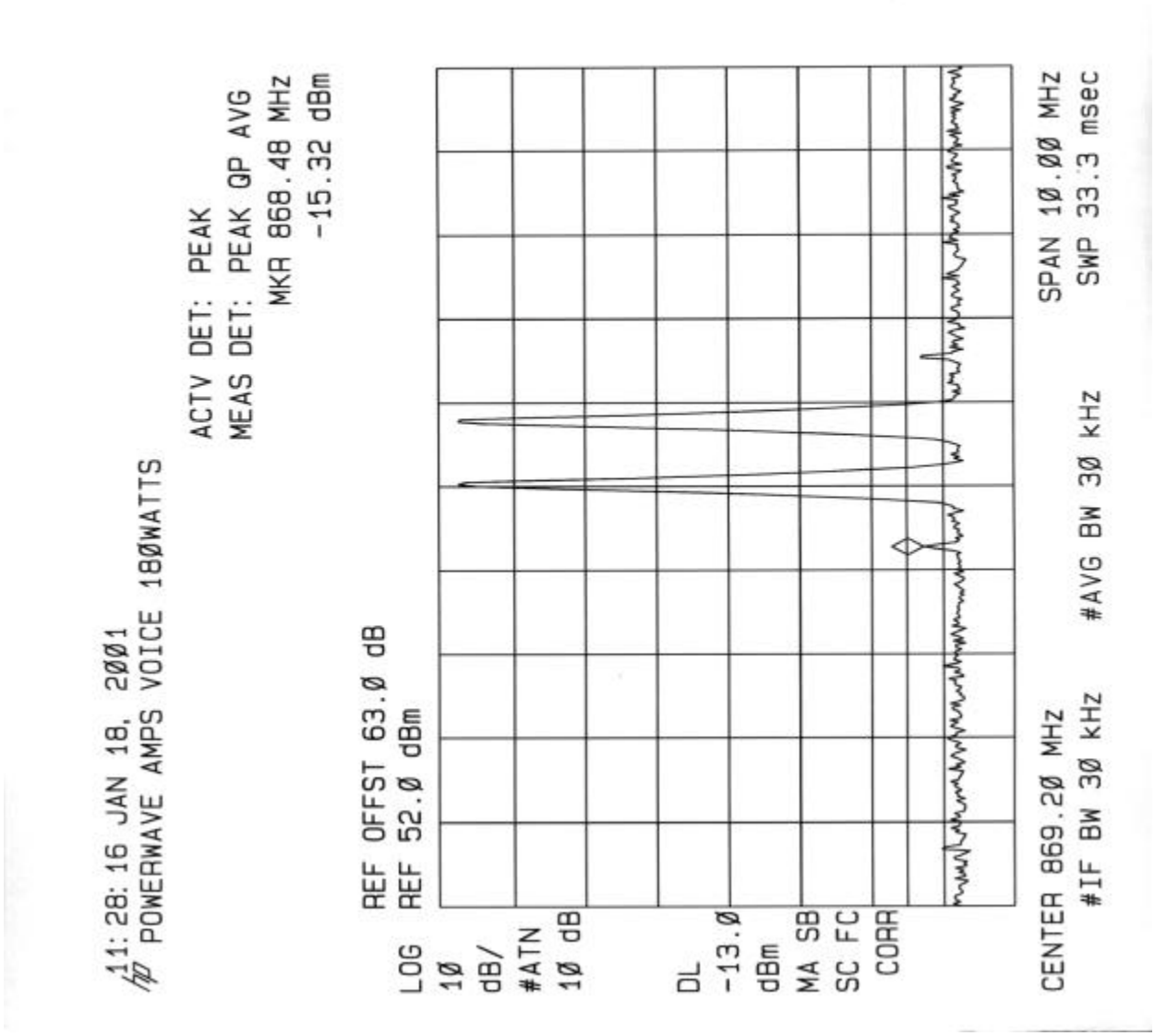
HIGH END OF BAND
(AMPS VOICE)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



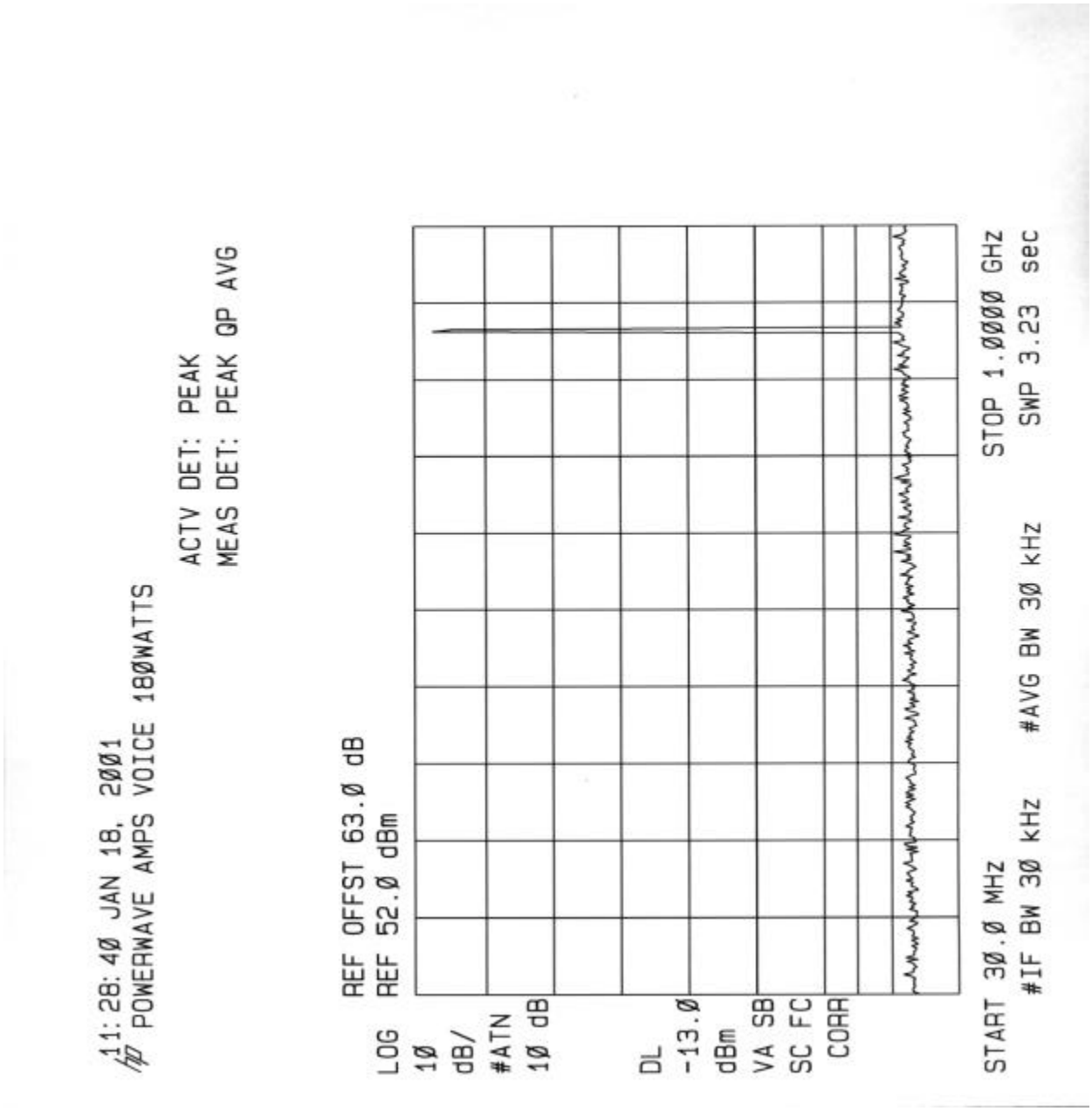
HIGH END OF BAND
(AMPS VOICE)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



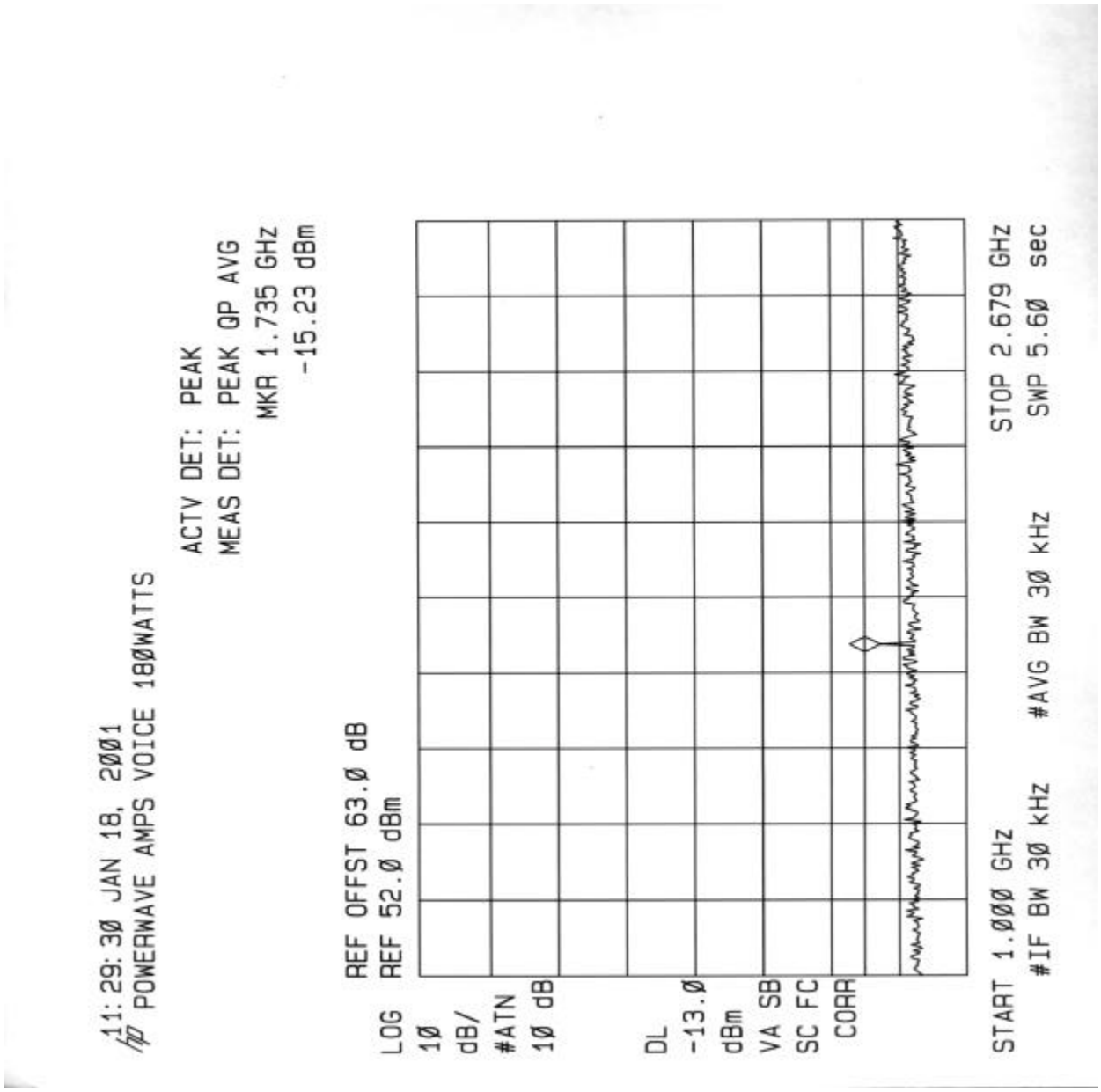
LOW END OF BAND
(AMPS VOICE)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



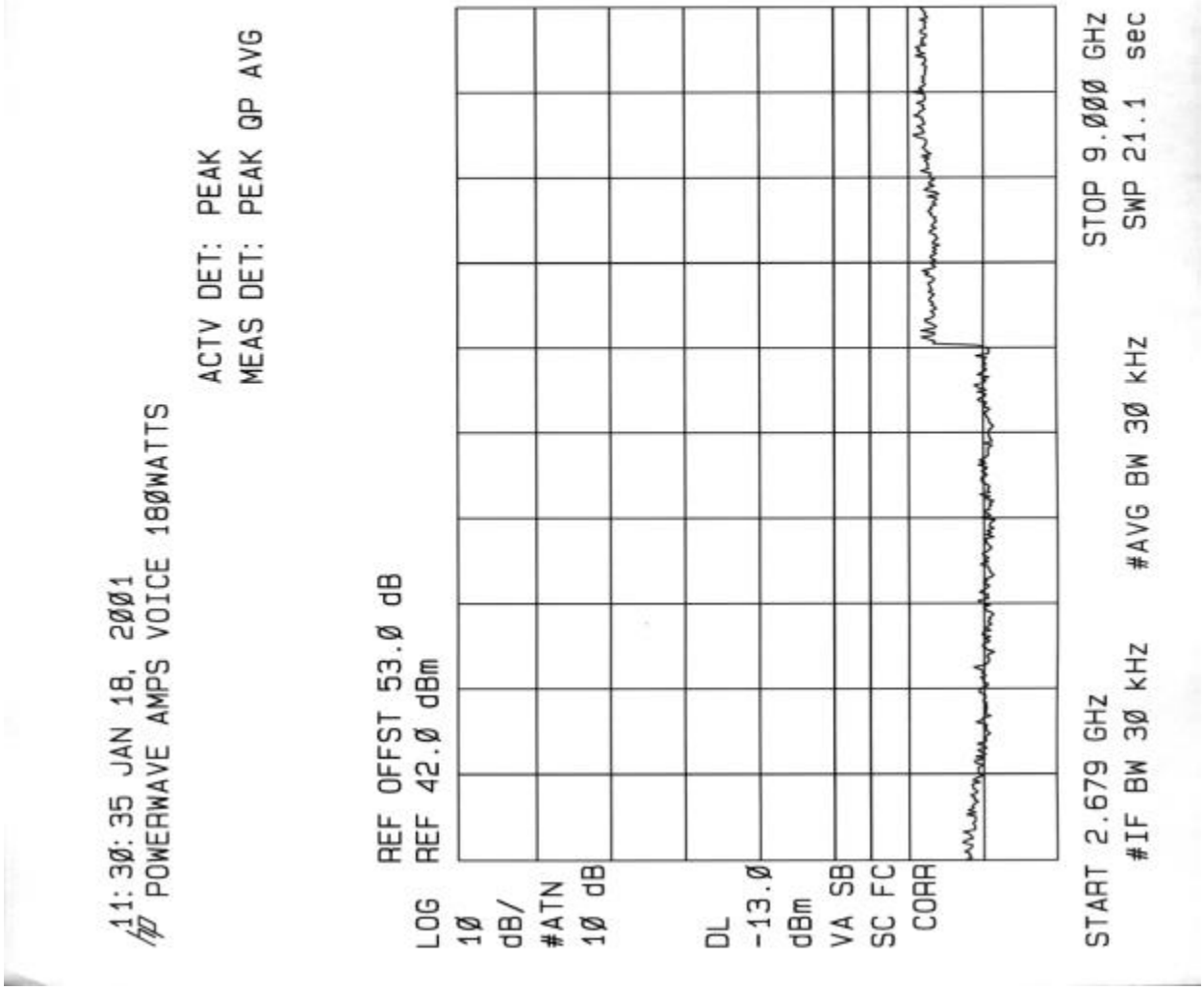
LOW END OF BAND
(AMPS VOICE)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



LOW END OF BAND
(AMPS VOICE)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.



LOW END OF BAND
(AMPS VOICE)

This report shall not be reproduced except in full, without the written approval of CCS. This document may be altered or revised by Compliance Certification Services personnel only, and shall be noted in the revision section of the document.