

FCC ID: ESD-SA824894S3

Exhibit 2

Engineering Report

c)Bandwidth (2.1049) Bandwidth Limitations (2.1047)

Calculation of Necessary Bandwidth for FCC ID: N7NOEM2

For CDPD 19.2Kbps Transmission (emission type FXW)

The data rate is 19200 bits per second.

Necessary Bandwidth = $2M + 2DK$

$M = 10 \text{ kHz}$

$D = 4.8 \text{ kHz}$

$K = 1.2$

So necessary bandwidth = $2 \times 10 + 2 \times 4.8 \times 1.2 = 31.5 \text{ kHz}$

Modulation Characteristics (2.987)

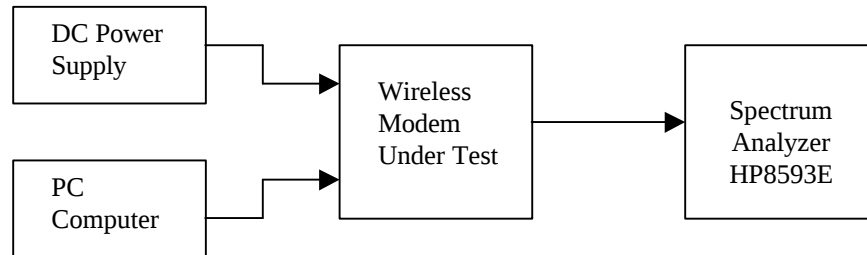
Name of Test:	Modulation Characteristics
FCC ID:	N7NOEM2
Grantee:	Sierra Wireless
Serial No.:	20600052674
Minimum Standard Specified	Para. 22.907 (a)
Test Results	N/A
Equipment Authorization Procedure	Para 2.987 (a) and (b)
Test Equipment:	HP8921A Cell Site Test Set HP35665A Dynamic Signal Analyser HP3631A DC power supply Zegna 486 PC Computer

Note: These tests are not applicable as the device is not capable of voice transmission.

Occupied Bandwidth (2.989)

Name of Test:	Occupied Bandwidth
FCC ID:	N7NOEM2
Grantee:	Sierra Wireless
Serial No.:	20600052674
Minimum Standard Specified	Para. 22.907 (b) and (d)
Test Results	Equipment is Compliant with Standard
Equipment Authorization Procedure	Para 2.989 (c)(1)
Test Equipment:	HP8593E Spectrum Analyzer HP3631A DC power supply Zegna 486 PC Computer

Test Setup Block Diagram



Measurement Data

Spectrum Analyzer:
Settings:

Hewlett Packard 8593E
Resolution Bandwidth 300 Hz
Video Filter 300 Hz
Scan Time 3.33 sec
Scan Width 100 kHz
Center Frequency 837.00 MHz

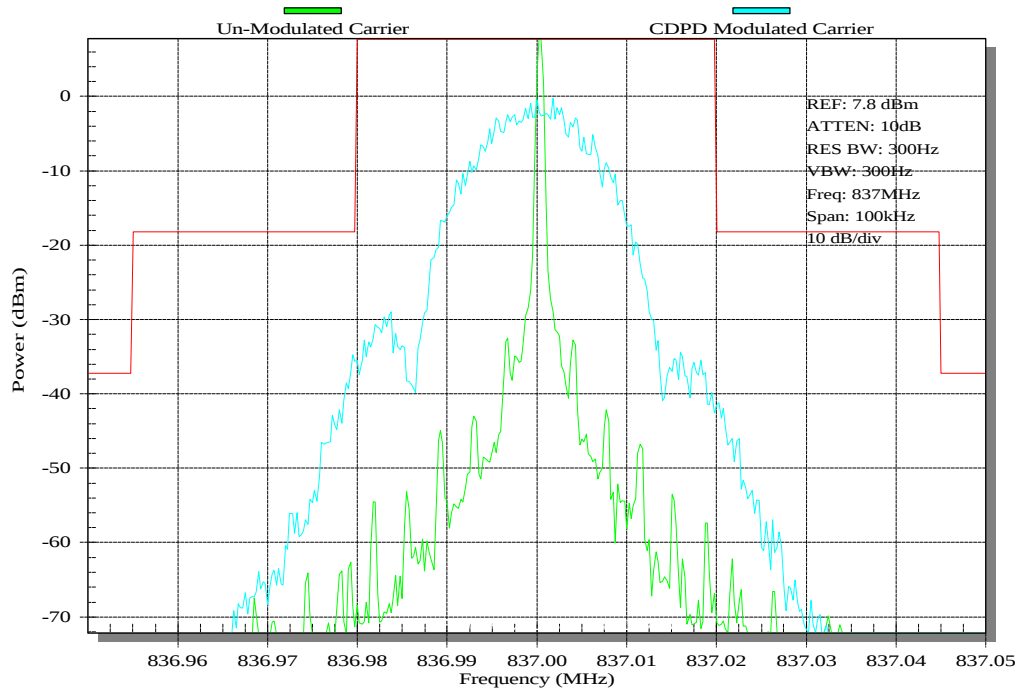
Data Or Signaling Type
1) CDPD, Cellular Digital Packet Data (19.2 kbaud)

Tx Deviation
4.8 kHz

Emission Designator
31K5FXW

CDPD (FXW) Occupied Spectrum - 2.989

12/03/98 SB300 serial# 0x9B356A5F 19.2kbps, 4.8kHz Deviation, 8dBm Output Power

**CDPD (FXW) Occupied Spectrum - 2.989**

12/03/98 SB300 serial# 0x9B356A5F 19.2kbps, 4.8kHz Deviation, 28dBm Output Power

