Lucent Technologies
Bell Labs Innovations

Nederland B.V. WCND
Report No. 540016

FCC ID: _____

TEST REPORT

Subject: Processing Gain For WaveLAN-IEEE PC CARD (Integrated)

Ref: FCC Rules 47 CFR Part 15, Section 5.247d

Report Prepared by:

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KDZ480628-3700
EXHIBIT #: 20

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1. Summary:

This document describes the Receiver Spreading Gain as measured for WaveLAN-II PC-Card Type 2 (Integrated) according to Ref.[2].

2. Conclusion:

The Lucent WaveLAN-II PC Card Type 2 (Integrated) product confirms to the minimum required 10 dB processing gain, as set forth by the FCC for operation in the 2.4 GHz ISM band.

3. References:

1- Document FCC 97-114, Appendix C, Guidance on Measurements for Direct Sequence Spread Spectrum Systems.
2- Hardware Functional Specification for WaveLAN-II/PC Card Type 2 Integrated, Doc. No. S-0000091 Rev. 1, Source Organization Lucent Technologies WCND Utrecht.
3- Viterbi, A. J., Principles of Coherent Communications, New York, McGraw-Hill 1966.
4- Proakis, J.G., Digital Communications, New York, McGraw-Hill 1989, page 270.

4. Measurement description:

4.1 Test introduction - FCC requirements:

Part of FCC certification for the Lucent WaveLAN IEEE 802.11 compliant Network Interface Card (NIC) is a Processing Gain test. This test proves that the receiver of the tested product employs a true spread spectrum device receiver structure, taking full advantage of the direct sequence spread spectrum modulation technique.

This test verifies the Receiver Processing Gain to be 10 dB or more, by monitoring the Bit Error Rate (BER) of the product under test while operating under strict defined received signal conditions. Since the product is capable of operation on either 2 Mbit/s or 1 Mbit/s the processing gain test is performed for both data rates.

Several methods of showing compliance to the rules are possible, from a stepped CW jammer to a continuous sweeping CW interferer. For this test the discrete stepped CW jammer method was chosen, as described in Ref.[1].

Therefore a receiver input signal is applied to the product under test, in the presence of a Continuos Wave (CW) interference source, also referred to as a CW jammer.

The test criteria for meeting the minimal spreading gain is such that it takes the theoretical calculated SNR for the

applied modulation technique and specified BER as a reference. From this given SNR the spreading gain is subtracted, yielding the CW Signal to Jammer ratio J/S. From reference [4], likewise as Ref.[3] consulted in Ref. [1], it is determined that for a BER of 10^-8 the SNR (S/N)o equals 15 dB @ 2 Mbit/s and 13 dB @ 1 Mbit/s data rate (QPSK, coherent detection as applied in the WaveLAN IEEE). Thus the J/S ratio for a processing gain of 10 dB that must be met is calculated as:

-15 + 10 = -5 dB @ 2 Mbit/s, and

-13 + 10 = -3 dB @ 1 Mbit/s.

The test takes place at the product Functional Specification (Ref.[2]) specified conditions for BER rate measurements, specifying a BER equal or better than 10^-8 at an receiver input level of -55 dBm.

Two types of correction are allowed for as described in Ref. [1]. The first taking into account 2 dB implementation losses, thus increasing the absolute J/S ratio by 2 dB.

The second correction allows for deleting the 20% worst-case frequencies in the processing gain test that cause the test at that CW interference to fail. This implies that for the 14 MHz wide measurement interval that is been considered the worst case 56 CW jammer frequencies that result in received data errors/missing frames can be ignored (14*(1 MHz/50 KHz) + 1 = 281).

4.2 Test sequence:

The measurements are performed at a 50 KHz CW raster. For each CW jammer frequency 10^8 bits are transmitted by the reference transmitter, and received by the product under test. For practical reasons 50.000 messages are transmitted. After blanking out frame overhead 1927 bits per frame are monitored. This results in 50.000 * 1927 = 96.350.000 transmitted bits for a BER test, which is a mere 1.4% less than the targeted 10^8 bits.

Though it would be more elegant to show BER compliance for at least say ten times 10^8 transmitted/received bits, the time involved with this grows significantly. Since the CW interferer is stepped in a 50 KHz raster, covering the receiver bandwidth of 14 MHz, it is considered that the BER requirement is sufficiently met since such a multitude of measurements are taken.

The total measurement is being performed under computer control, hereafter referred to as controller. It involves the control over the reference transmitter, CW-interference generator, receiver under test and received data error-checker/frame counter. The controller program flow chart is given in Annex C, FCC Processing Gain Controller Flowchart.

In the receiver at the inter-connection between the RF circuits and the Digital Signal Processor (DSP) the demodulated received RF signal is made available to an error

checker. This error checker is a dedicated piece of hardware that monitors real-time the received data, gating_out any other non-relevant information that is present in the received data (message header, message length field, CRC field, diagnostic information field etc.). For a chosen Tx message length of 230 bytes this yields 1927 useable bits.

The transmitted data pattern is fixed, and known at the receiver. Therefore the error checker compares the known transmitted data sequence with received data sequence. Received data errors and missing received frames information is retrieved by the controller.

The test sequence is as follows: the controller issues a request for transmit to the transmitter for 1000 frames. Once this number of frames has been transmitted the transmitter signals to the controller the finish of the controller request. The controller reads the number of received frames and number of erroneous received frames. If there are no missing frames or errors detected, the controller increases the CW interference level by 1 dB. Consequently it re-issues an transmit request. This sequence is repeated until errors or missing frames are detected by the controller. When this is detected, the controller lowers the CW interference level by 1 dB. Instead of a quick error scan using 1000 messages, 50000 messages are transmitted to check the BER.

The test continues by raising the jammer frequency by 50 KHz and re-setting the CW jammer level to the start value. For this new CW frequency the measurements are repeated as described above (see Annex C). The CW frequency and power levels are pre-programmed in a command-file that is read by the controller during test start-up.

Before measurements are started, the receiver input level and CW jammer level need to be calibrated. See figure 1 for the test set-up.

The test takes place at an arbitrarily chosen channel, being channel two (2417 MHz).

4.3 Receiver level calibration:

The receiver input level is calibrated using the RF power meter. For this purpose, the reference transmitter output attenuator is set to 0 dB. The CW jammer is disabled for this calibration. Using the RF power meter at the receiver input of the device under test, the received level at the receiver input is measured for a continuos active reference transmitter. The attenuator value is calculated to achieve a received level of -55 dBm. Finally the attenuator is adjusted to this value.

4.4 CW level calibration:

The CW jammer generator output level is set to 0 dBm, and the RF power meter value is read. The reference transmitter is disabled during this calibration. The difference in CW output level setting and RF power meter measured at receiver input of the device under test is the attenuation of the test set-up. This is the correction factor that needs to be applied for analysis of the measurements results.

5. Equipment used:

# Item needed	Description
1	Portable PC with WaveLAN-II NIC, Panasonic CF-V21P, SN-3JKSM01028, for transmitter.
1	Software 'Testware' <TW.EXE>, 208392 bytes, 06-12-98. Used for the transmitter.
1	Portable PC with WaveLAN-II NIC, NCR 3150, SN 17-26106224, for receiver.
1	Software 'Host test' <CERT21.EXE>, 116.492 bytes, 06-19-1998. Used for the receiver.
2	WaveLAN IEEE NIC.
1	PC + IEEE interface card, NCR PC6, SN 17-17039925 and CEC PC<>488 interface card.
1	Received error checker, wire-wrap prototype, Lucent WCND designed and built.
1	Power supply, Delta D030-1, for error checker.
1	Spectrum Analyzer, HP 9592B SN 3009U00102.
1	Power Meter, Rohde & Schwarz, Millivolt meter URV5, SN 893430/070
1	Power Sensor, Rhode & Schwarz, type NRV-Z2 828.3218.02, SN 860925/005.
1	CW jammer generator, Gigatronics 7200, SN 746604.
1	Variable attenuator, 0-70 dB, Midwest Microwave, Model 1044.
2	Fixed attenuator, 10 dB, Inmet Corp., model 18AH-10.
1	RF power splitter, ARRA 3-9200-2, SN 2001
1	Misc. IEEE cabling
1	Misc. SMA cabling
1	RF shielded cage

6. Measurement set_up:

The test set_up is given below in Figure 1, measurement test set-up. To avoid interference that can disrupt the measurement, the whole test is performed within the shielded RF cage.

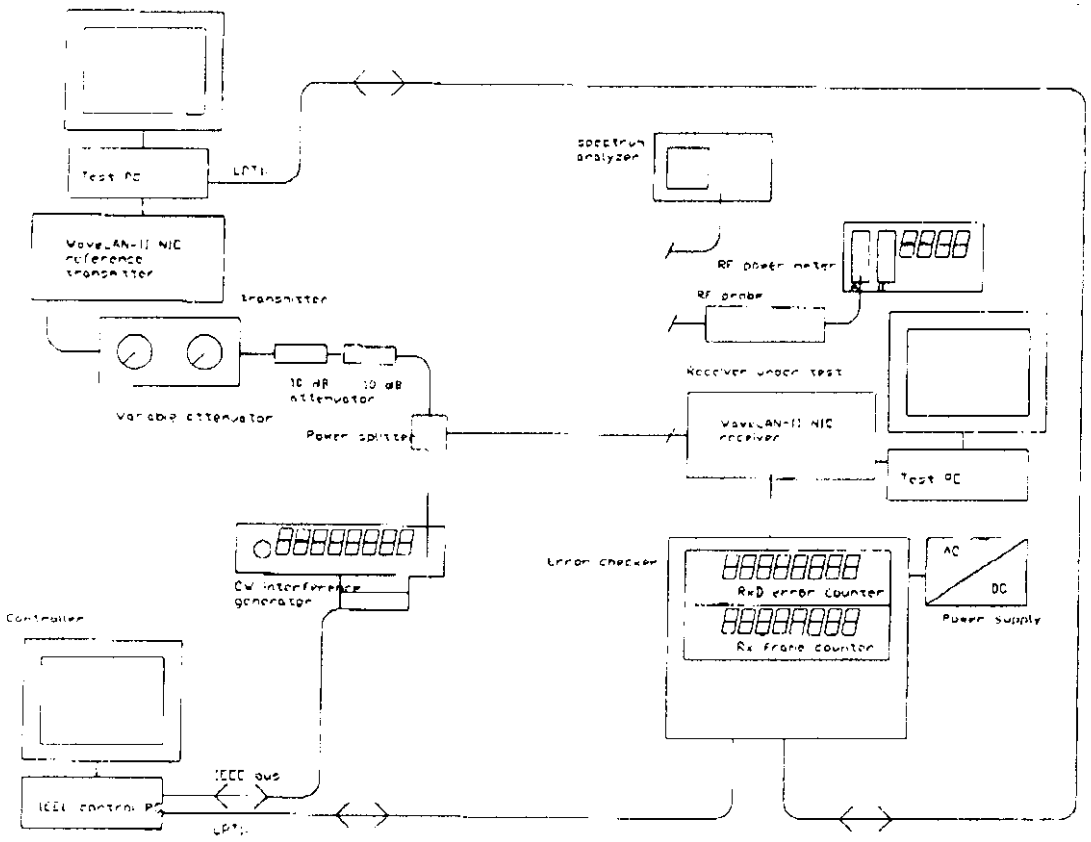


Figure 1, measurement test set-up.

7. Measurement results:

Calibrations:

Receiver calibration: For 0 dB total attenuator setting (variable and fixed = 0) the received level at the receiver input equals +10 dBm. Test setting: the fixed attenuator is chosen to be 20 dB, the variable attenuator is set to 45 dB, attenuation.

CW jammer generator calibration: For a 0 dBm output level at the generator the received level at the receiver input is -5 dBm.

Processing Gain Measurement Results:

Annex A lists the measurement results tests taken for a data rate of 2 Mbit/s, while Annex B lists the results for a data rate of 1 Mbit/s.

For each frequency between Fc +/-8 MHz a BER measurement is taken. Note that for verification of the spreading gain the measurement results are taken for Fc +/- 7 MHz, being the receiver bandwidth.

The J/S ration is given at the top of the table, as well as the CW-correction factor.

For each CW measurement frequency the jammer level is varied from -65 dBm to -57 dBm a the receiver input, yielding a J/S ratio of -10 to -2 dB.

As can be seen, for some CW frequencies received data errors/missing frames are detected.

Applying the rule of discarding the 20% worst-case jamming/signal points (Ref.[1]), results in zero received errors for both 2 Mbit/s and 1 Mbit/s. Respectively 3.2% and 3.9% of the total CW frequencies were found to cause data errors and/or missing frames.

Therefore, a J/S ratio better or equal to -5 dB @ 2 Mbit/s dB and -3 dB @ 1 Mbit/s is measured.

Therefore it can be concluded the tested product complies to the required Processing Gain of 10 dB, as set forth in Ref[1].

Annex A: Measurement results, 2 Mbit/s

Measurement file output name is: 2mb.TXT

Input command file name is: INPUT.CMD

Input CW correction level: 5 dB

Lowcount is: 1000 messages

Highcount is: 50000 messages

Rx level Tx is: -53 dBm

Note: 2 MbIt, 5 dB SIR tested for (15 dB ENR - 10)

No usage of allowed 2 dB SIR margin.
Total SIR is 5 dB

Total errors 9 out of 281 measurement points.

percentage 3.20%

OK? <20% as OK

Number of received data errors as a function of frequency and interference level
Not measured combinations
Marked as "-1"

	Uncorrected interference level dialed at CW generator																						
	-60		-58		-56		-57		-55		-56		-54		-53		-52						
	True CW interference level at receiver input (dBm)																						
	-65		-64		-63		-62		-61		-60		-59		-58		-57						
J/S ratio (dB)	-10	#PDA	-8	#PDA	-6	#PDA	-7	#PDA	-6	#PDA	-5	#PDA	-4	#PDA	-3	#PDA	-2	#PDA	Errors detected full test range	PDA missing full test range	Errors detected up to CW =< -60 dBm	PDA missing up to CW =< -60 dBm	Both error RxD and PDA =< -62 dBm		
Frequency (Hz)																					(J/S = -5 dB)	(J/S = -5 dB)		time	date
2409000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:28:25	6/25/98
2409050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:25:49	6/25/98
2409100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:23:12	6/25/98
2409150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:20:36	6/25/98
2409200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:17:59	6/25/98
2409250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:15:23	6/25/98
2409300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:12:46	6/25/98
2409350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:10:10	6/25/98
2409400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:07:33	6/25/98
2409450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:04:57	6/25/98
2409500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:02:20	6/25/98
2409550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:59:43	6/25/98
2409600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:57:07	6/25/98
2409650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:54:30	6/25/98
2409700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:51:54	6/25/98
2409750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:49:16	6/25/98
2409800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:46:40	6/25/98
2409850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:44:03	6/25/98
2409900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:41:27	6/25/98

2409950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:38:50	6/25/98
2410000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:36:13	6/25/98
2410050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:33:37	6/25/98
2410100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:31:01	6/25/98
2410150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:28:24	6/25/98
2410200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:25:47	6/25/98
2410250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:23:10	6/25/98
2410300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:20:34	6/25/98
2410350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:17:58	6/25/98
2410400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:15:21	6/25/98
2410450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:12:45	6/25/98
2410500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:10:08	6/25/98
2410550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:07:32	6/25/98
2410600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:04:54	6/25/98
2410650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:02:18	6/25/98
2410700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:59:41	6/25/98
2410750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:57:06	6/25/98
2410800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:54:29	6/25/98
2410850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:51:51	6/25/98
2410900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:49:15	6/25/98
2410950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:46:38	6/25/98
2411000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:44:02	6/25/98
2411050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:41:24	6/25/98
2411100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:38:48	6/25/98
2411150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:36:12	6/25/98
2411200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:33:35	6/25/98
2411250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:30:58	6/25/98
2411300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:28:22	6/25/98
2411350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:25:46	6/25/98
2411400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:23:09	6/25/98
2411450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:20:33	6/25/98
2411500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:17:56	6/25/98
2411550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:15:20	6/25/98
2411600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:12:43	6/25/98

2411850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:10:07	6/25/98
2411900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:07:30	6/25/98
2411950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:04:53	6/25/98
2412000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:02:17	6/25/98
2412050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:59:40	6/25/98
2412100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:57:03	6/25/98
2412150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:54:26	6/25/98
2412200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:51:49	6/25/98
2412250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:49:13	6/25/98
2412300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:46:37	6/25/98
2412350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:44:00	6/25/98
2412400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:41:23	6/25/98
2412450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:38:47	6/25/98
2412500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:36:10	6/25/98
2412550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:33:33	6/25/98
2412600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:30:56	6/25/98
2412650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:28:20	6/25/98
2412700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:25:44	6/25/98
2412750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:23:07	6/25/98
2412800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:20:31	6/25/98
2412850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:17:54	6/25/98
2412900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:15:18	6/25/98
2412950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:12:42	6/25/98
2413000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:10:05	6/25/98
2413050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:07:29	6/25/98
2413100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:04:53	6/25/98
2413150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:02:16	6/25/98
2413200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:58:11	6/24/98
2413250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:58:47	6/24/98
2413300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:01:23	6/24/98
2413350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:03:59	6/24/98
2413400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:06:35	6/24/98
2413450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:09:12	6/24/98
2413500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:11:48	6/24/98

2413350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:14:24	8/24/98
2413400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:17:01	8/24/98
2413450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:19:37	8/24/98
2413500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:22:14	8/24/98
2413550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:24:50	8/24/98
2413600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1.1	50000	RxD errors	OK, No PDA errors	0	0	0	21:27:27	8/24/98
2413650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:30:03	8/24/98
2413700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:33:40	8/24/98
2413750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:35:16	8/24/98
2413800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:37:53	8/24/98
2413850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:40:30	8/24/98
2413900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:43:07	8/24/98
2413950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:45:45	8/24/98
2414000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:48:20	8/24/98
2414050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:50:57	8/24/98
2414100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	21:51:37	8/24/98
2414150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2.1	50000	RxD errors	OK, No PDA errors	0	0	0	21:54:19	8/24/98
2414200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:56:53	8/24/98
2414250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:59:27	8/24/98
2414300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:02:03	8/24/98
2414350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	4.1	50000	RxD errors	OK, No PDA errors	0	0	0	22:04:39	8/24/98
2414400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	14.1	50000	RxD errors	OK, No PDA errors	0	0	0	22:07:16	8/24/98
2414450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1.1	50000	RxD errors	OK, No PDA errors	0	0	0	22:09:52	8/24/98
2414500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:12:29	8/24/98
2414550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:15:05	8/24/98
2414600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:17:42	8/24/98
2414650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:20:19	8/24/98
2414700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	5.1	50000	RxD errors	OK, No PDA errors	0	0	0	22:22:56	8/24/98
2414750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:25:32	8/24/98
2414800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:28:04	8/24/98
2414850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:30:45	8/24/98
2414900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1.1	50000	RxD errors	OK, No PDA errors	0	0	0	22:33:22	8/24/98
2414950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	1	1000	RxD errors	PDA errors	0	0	0	22:35:54	8/24/98
2415000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2.1	50000	1	1000	RxD errors	PDA errors	0	0	0	22:38:34	8/24/98

2415050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	0	1000	RxD errors	PDA errors	0	0	0	22:41:15	8/24/98
2415100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	23.1	50000	RxD errors	OK, No PDA errors	0	0	0	22:43:47	8/24/98
2415150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	5	1000	RxD errors	PDA errors	0	0	0	22:46:24	8/24/98
2415200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2.1	50000	12	1000	RxD errors	PDA errors	0	0	0	22:49:01	8/24/98
2415250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	19.1	50000	34	1000	RxD errors	PDA errors	0	0	0	22:51:37	8/24/98
2415300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1.1	50000	11	1000	RxD errors	PDA errors	0	0	0	22:54:13	8/24/98
2415350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1.1	50000	4	1000	RxD errors	PDA errors	0	0	0	22:56:49	8/24/98
2415400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	37.3	50000	-1	-1	RxD errors	PDA errors	0	0	0	23:01:22	8/24/98
2415450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	1	1000	RxD errors	PDA errors	0	0	0	23:03:58	8/24/98
2415500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	1	1000	RxD errors	PDA errors	0	0	0	23:06:34	8/24/98
2415550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	1	1000	RxD errors	PDA errors	0	0	0	23:09:11	8/24/98
2415600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	23:09:51	8/24/98
2415650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	RxD errors	OK, No PDA errors	0	0	0	23:12:26	8/24/98
2415700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	RxD errors	OK, No PDA errors	0	0	0	23:15:04	8/24/98
2415750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:17:41	8/24/98
2415800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1.1	50000	RxD errors	OK, No PDA errors	0	0	0	23:20:17	8/24/98
2415850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2.1	50000	RxD errors	OK, No PDA errors	0	0	0	23:22:54	8/24/98
2415900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	6.1	50000	RxD errors	OK, No PDA errors	0	0	0	23:25:31	8/24/98
2415950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	31.1	50000	RxD errors	OK, No PDA errors	0	0	0	23:28:07	8/24/98
2416000000	0.3	49008	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	1	1	1	23:32:18	8/24/98
2416050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	6.1	50000	3	1000	RxD errors	PDA errors	0	0	0	23:34:51	8/24/98
2416100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	6.1	50000	RxD errors	OK, No PDA errors	0	0	0	23:37:28	8/24/98
2416150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	95.1	50000	15	1000	RxD errors	PDA errors	0	0	0	23:40:04	8/24/98
2416200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	3	1000	RxD errors	PDA errors	0	0	0	23:42:41	8/24/98
2416250000	0.3	49371	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	1	1	1	23:46:48	8/24/98
2416300000	0	1000	0	1000	0.1	49900	0.3	49990	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	1	1	1	23:51:08	8/24/98
2416350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	62.1	49998	RxD errors	PDA errors	0	0	0	23:53:43	8/24/98
2416400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1.1	50000	1	1000	RxD errors	PDA errors	0	0	0	23:56:13	8/24/98
2416450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:58:57	8/24/98
2416500000	0.3	48404	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	1	1	1	0:03:04	8/25/98
2416550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2.1	50000	RxD errors	OK, No PDA errors	0	0	0	0:05:40	8/25/98
2416600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:08:16	8/25/98
2416650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:10:53	8/25/98
2416700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:13:29	8/25/98

2416750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:18:06	8/25/98
2416800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:19:42	8/25/98
2416850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:21:16	8/25/98
2416900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:23:36	8/25/98
2416950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	PDA errors	0	0	0	0:25:32	8/25/98
2417000000	0.1	49976	0.5	49979	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	1	1	1	0:30:42	8/25/98
2417050000	0.3	49978	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	1	1	1	0:34:40	8/25/98
2417100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:37:26	8/25/98
2417150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:40:01	8/25/98
2417200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:42:37	8/25/98
2417250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:45:14	8/25/98
2417300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:47:50	8/25/98
2417350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:50:27	8/25/98
2417400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:53:04	8/25/98
2417450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:55:40	8/25/98
2417500000	0.3	49979	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	1	1	1	0:58:47	8/25/98
2417550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	24.1	50000	RxD errors	OK, No PDA errors	0	0	0	1:02:24	8/25/98
2417600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	20.1	49999	RxD errors	PDA errors	0	0	0	1:05:00	8/25/98
2417650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	42.1	49999	RxD errors	PDA errors	0	0	0	1:07:37	8/25/98
2417700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	42.1	50000	2	1000	RxD errors	PDA errors	0	0	0	1:10:14	8/25/98
2417750000	0.3	48824	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	1	1	1	1:14:31	8/25/98
2417800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	19.1	50000	RxD errors	OK, No PDA errors	0	0	0	1:16:54	8/25/98
2417850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	20.1	50000	RxD errors	OK, No PDA errors	0	0	0	1:19:34	8/25/98
2417900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	1	1000	RxD errors	PDA errors	0	0	0	1:22:11	8/25/98
2417950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	3.1	50000	RxD errors	OK, No PDA errors	0	0	0	1:24:47	8/25/98
2418000000	0.3	48178	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	1	1	1	1:28:54	8/25/98
2418050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	1.1	50000	RxD errors	OK, No PDA errors	0	0	0	1:31:31	8/25/98
2418100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:34:07	8/25/98
2418150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:36:43	8/25/98
2418200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:38:20	8/25/98
2418250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:41:57	8/25/98
2418300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:44:34	8/25/98
2418350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:47:10	8/25/98
2418400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	2.1	50000	RxD errors	OK, No PDA errors	0	0	0	1:49:47	8/25/98

2416450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:52:23	6/25/98
2416500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	3.1	49999	RxD errors	PDA errors	0	0	0	1:55:00	6/25/98
2416550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	3.1	50000	RxD errors	OK, No PDA errors	0	0	0	1:57:36	6/25/98
2416600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	3.1	50000	RxD errors	OK, No PDA errors	0	0	0	2:00:13	6/25/98
2416650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:02:50	6/25/98
2416700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	2:03:31	6/25/98
2416750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	RxD errors	OK, No PDA errors	0	0	0	2:06:07	6/25/98
2416800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:08:44	6/25/98
2416850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:11:20	6/25/98
2416900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:13:57	6/25/98
2416950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:16:33	6/25/98
2417000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:19:10	6/25/98
2417050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	2:19:49	6/25/98
2417100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:22:27	6/25/98
2417150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:24:03	6/25/98
2417200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:27:38	6/25/98
2417250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:30:15	6/25/98
2417300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:32:51	6/25/98
2417350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:35:27	6/25/98
2417400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:38:04	6/25/98
2417450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:40:40	6/25/98
2417500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:43:16	6/25/98
2417550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:45:54	6/25/98
2417600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:48:30	6/25/98
2417650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:51:07	6/25/98
2417700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:53:43	6/25/98
2417750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:56:20	6/25/98
2417800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:58:57	6/25/98
2417850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:01:33	6/25/98
2417900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:04:10	6/25/98
2417950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:06:47	6/25/98
2418000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:09:24	6/25/98
2418050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:12:00	6/25/98
2418100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:14:37	6/25/98

2420150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:17:18	8/25/98
2420200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:18:50	8/25/98
2420250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:22:28	8/25/98
2420300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:23:03	8/25/98
2420350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	3:25:43	8/25/98
2420400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:28:20	8/25/98
2420450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:30:57	8/25/98
2420500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:33:33	8/25/98
2420550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:36:09	8/25/98
2420600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:38:48	8/25/98
2420650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:41:23	8/25/98
2420700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:43:59	8/25/98
2420750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:46:36	8/25/98
2420800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:48:12	8/25/98
2420850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:51:50	8/25/98
2420900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:54:28	8/25/98
2420950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:57:03	8/25/98
2421000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:58:39	8/25/98
2421050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:31:02	8/25/98
2421100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:33:38	8/25/98
2421150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:36:15	8/25/98
2421200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:38:52	8/25/98
2421250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:41:28	8/25/98
2421300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:44:06	8/25/98
2421350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:46:41	8/25/98
2421400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:49:18	8/25/98
2421450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	7:49:58	8/25/98
2421500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:52:35	8/25/98
2421550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:55:12	8/25/98
2421600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	7:57:49	8/25/98
2421650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:00:26	8/25/98
2421700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:03:03	8/25/98
2421750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:05:38	8/25/98
2421800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:08:18	8/25/98

2421850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:10:52	6/25/98
2421900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:13:29	6/25/98
2421950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:16:06	6/25/98
2422000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:18:41	6/25/98
2422050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:21:18	6/25/98
2422100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:23:54	6/25/98
2422150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:26:32	6/25/98
2422200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:29:08	6/25/98
2422250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:31:45	6/25/98
2422300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:34:22	6/25/98
2422350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:36:56	6/25/98
2422400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:39:34	6/25/98
2422450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:42:12	6/25/98
2422500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:44:49	6/25/98
2422550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:47:25	6/25/98
2422600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:50:02	6/25/98
2422650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:52:38	6/25/98
2422700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:55:15	6/25/98
2422750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	8:57:52	6/25/98
2422800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:00:28	6/25/98
2422850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:03:06	6/25/98
2422900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:05:42	6/25/98
2422950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:08:18	6/25/98
2423000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:10:55	6/25/98
2423050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:13:31	6/25/98
2423100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:16:08	6/25/98
2423150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:18:44	6/25/98
2423200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:21:20	6/25/98
2423250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:23:57	6/25/98
2423300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:26:33	6/25/98
2423350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:29:10	6/25/98
2423400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:31:47	6/25/98
2423450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:34:23	6/25/98
2423500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:37:00	6/25/98

2423550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:39:37	8/25/98
2423600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:42:15	8/25/98
2423650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:44:50	8/25/98
2423700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:47:27	8/25/98
2423750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:50:03	8/25/98
2423800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:52:41	8/25/98
2423850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:55:17	8/25/98
2423900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	9:57:54	8/25/98
2423950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:00:31	8/25/98
2424000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:03:07	8/25/98
2424050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:05:44	8/25/98
2424100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:08:20	8/25/98
2424150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:10:56	8/25/98
2424200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	10:11:38	8/25/98
2424250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:14:14	8/25/98
2424300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:16:51	8/25/98
2424350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:19:27	8/25/98
2424400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:22:04	8/25/98
2424450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:24:41	8/25/98
2424500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:27:17	8/25/98
2424550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:29:53	8/25/98
2424600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:32:30	8/25/98
2424650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:35:09	8/25/98
2424700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:37:46	8/25/98
2424750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:40:22	8/25/98
2424800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:42:59	8/25/98
2424850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:45:35	8/25/98
2424900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:48:12	8/25/98
2424950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:50:48	8/25/98
2425000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	10:53:25	8/25/98
																					0	0	0		
																					0.20%	0.20%	0.20%		
																					<20% so OK	<20% so OK	<20% so OK		

Annex B, Measurement results for 1 Mbit/s.

Measurement file output name is: 1mb.TX T

Input command file name is: INPUT.CMD

Input CW correction level: 5 dB

Lowcount is: 1000 masse gas

Highcount is: 50000 masse gas

Rx level Tx is: -55 dBm

Note: 1 Mbit, 3 dB SIR tested for (13 dB SNR - 10)

Makes usage of 0 dB of allowed 2 dB SIR margin.
Total SIR is 3 dB

Total errors 11 out of 261 measurement points.

percentage 3.91 %

OK? <20% so OK

Number of received data errors as a function of frequency and interference level
Not measured combinations listed as "-"

	Uncorrected interference level dialed at CW generator																							
	-60		-59		-58		-57		-56		-55		-54		-53		-52							
	True CW interference level at receiver input (dBm)																							
	-65		-64		-63		-62		-61		-60		-59		-58		-57							
J/S ratio (dB)	-10	#PDA	-9	#PDA	-8	#PDA	-7	#PDA	-6	#PDA	-5	#PDA	-4	#PDA	-3	#PDA	-2	#PDA	Errors detected full test range	PDA missing full test range	Errors detected up to CW =< -58 dBm	PDA missing up to CW =< -66 dBm	Both error RxD and PDA =< -62 dBm		
Frequency (Hz)																					(J/S = -3 dB)	(J/S = -3 dB)		time	date
2409000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:12:54	6/23/98
2409050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:09:48	6/23/98
2409100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:06:39	6/23/98
2409150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:03:32	6/23/98
2409200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:00:24	6/23/98
2409250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:57:16	6/23/98
2409300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:54:08	6/23/98
2409350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:51:00	6/23/98
2409400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:47:53	6/23/98
2409450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:44:45	6/23/98
2409500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:41:37	6/23/98
2409550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:38:29	6/23/98
2409600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:35:21	6/23/98
2409650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:32:13	6/23/98
2409700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:29:06	6/23/98
2409750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	1:25:57	6/23/98
2409800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:23:11	6/23/98
2409850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:20:00	6/23/98
2409900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:16:58	6/23/98

2409950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:15:44	8/23/98
2410000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:12:44	8/23/98
2410050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:09:33	8/23/98
2410100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:06:28	8/23/98
2410150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:03:16	8/23/98
2410200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	1:00:10	8/23/98
2410250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:57:02	8/23/98
2410300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:53:55	8/23/98
2410350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:50:47	8/23/98
2410400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:47:39	8/23/98
2410450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:44:32	8/23/98
2410500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:41:24	8/23/98
2410550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:38:15	8/23/98
2410600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:35:06	8/23/98
2410650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:32:00	8/23/98
2410700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:28:52	8/23/98
2410750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:25:45	8/23/98
2410800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:22:37	8/23/98
2410850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:19:26	8/23/98
2410900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:16:22	8/23/98
2410950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:13:14	8/23/98
2411000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:10:05	8/23/98
2411050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:06:57	8/23/98
2411100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	0:03:50	8/23/98
2411150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	0:00:43	8/23/98
2411200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:58:57	8/22/98
2411250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:55:49	8/22/98
2411300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:52:42	8/22/98
2411350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:50:34	8/22/98
2411400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:47:27	8/22/98
2411450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:44:18	8/22/98
2411500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:41:11	8/22/98
2411550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:38:03	8/22/98
2411600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:34:56	8/22/98

2411650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:31:44	8/22/98
2411700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	23:28:40	8/22/98
2411750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:27:54	8/22/98
2411800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:24:47	8/22/98
2411850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:21:38	8/22/98
2411900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	23:18:50	8/22/98
2411950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:17:05	8/22/98
2412000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:14:38	8/22/98
2412050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:11:50	8/22/98
2412100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:08:23	8/22/98
2412150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:05:15	8/22/98
2412200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	23:02:08	8/22/98
2412250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:59:00	8/22/98
2412300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:56:51	8/22/98
2412350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:52:44	8/22/98
2412400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:49:38	8/22/98
2412450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:46:25	8/22/98
2412500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:43:21	8/22/98
2412550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:40:15	8/22/98
2412600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:37:05	8/22/98
2412650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:33:58	8/22/98
2412700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:30:51	8/22/98
2412750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:27:43	8/22/98
2412800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:24:34	8/22/98
2412850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:21:27	8/22/98
2412900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:18:19	8/22/98
2412950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:15:11	8/22/98
2413000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	13:37:34	8/22/98
2413050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50001	OK, 0 RxD errors	PDA errors	0	0	0	13:43:41	8/22/98
2413100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	13:46:48	8/22/98
2413150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	13:49:58	8/22/98
2413200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	13:53:05	8/22/98
2413250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	13:53:11	8/22/98
2413300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	13:58:18	8/22/98

2413350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:00:23	8/22/98
2413400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:07:34	8/22/98
2413450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:05:41	8/22/98
2413500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:08:40	8/22/98
2413550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:10:57	8/22/98
2413600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:15:04	8/22/98
2413650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:18:12	8/22/98
2413700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:21:20	8/22/98
2413750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:24:27	8/22/98
2413800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:27:36	8/22/98
2413850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:30:46	8/22/98
2413900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:33:52	8/22/98
2413950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:36:58	8/22/98
2414000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:40:08	8/22/98
2414050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:43:15	8/22/98
2414100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:46:22	8/22/98
2414150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:49:29	8/22/98
2414200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:52:37	8/22/98
2414250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:55:44	8/22/98
2414300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	14:58:52	8/22/98
2414350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:01:59	8/22/98
2414400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:05:08	8/22/98
2414450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:08:14	8/22/98
2414500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:11:22	8/22/98
2414550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:14:29	8/22/98
2414600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:17:37	8/22/98
2414650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:20:44	8/22/98
2414700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:23:54	8/22/98
2414750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:27:01	8/22/98
2414800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:30:09	8/22/98
2414850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:33:17	8/22/98
2414900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:36:24	8/22/98
2414950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:39:32	8/22/98
2415000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:42:40	8/22/98

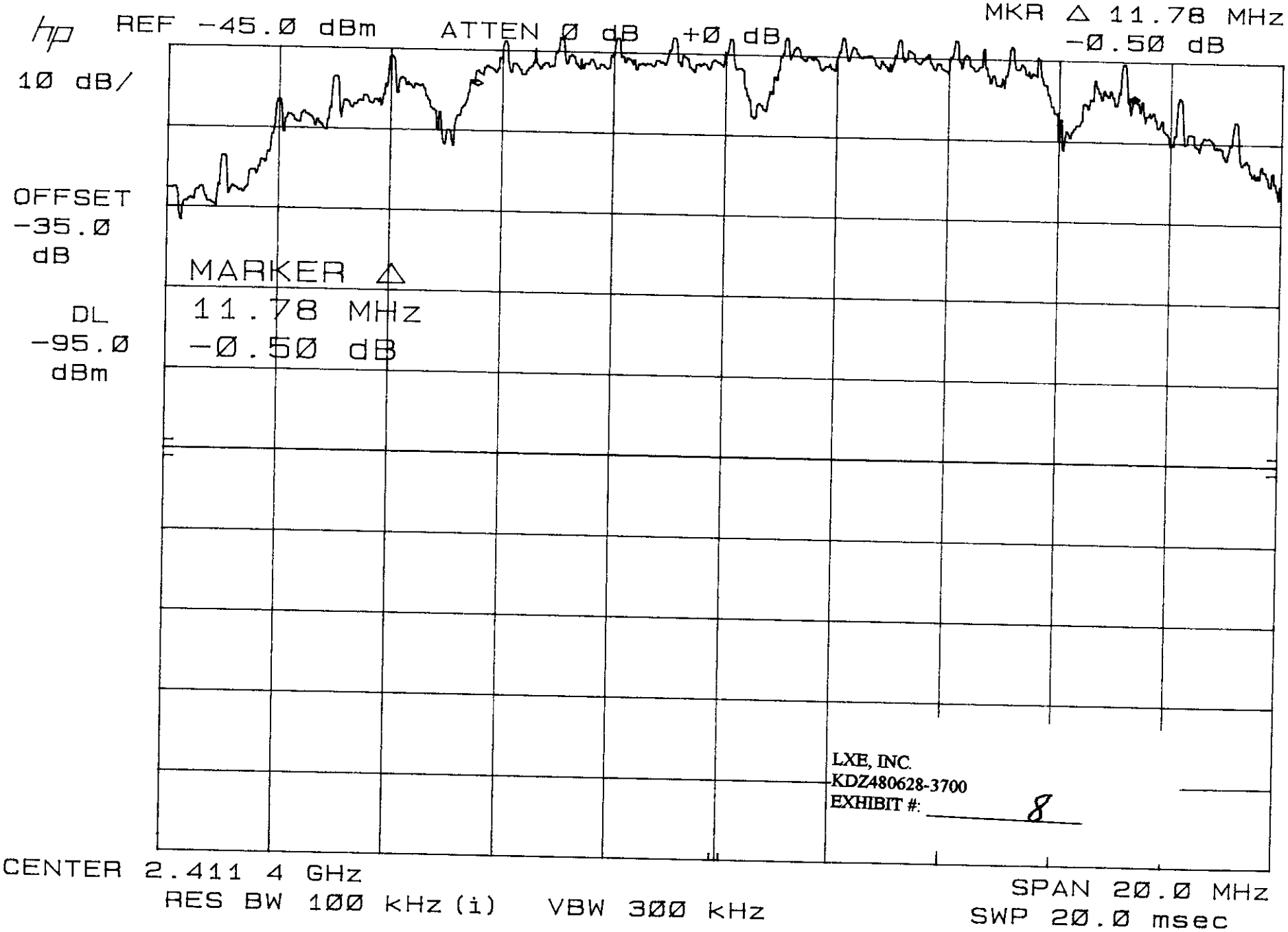
2415050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:45:47	6/22/98
2415100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:48:50	6/22/98
2415150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:52:04	6/22/98
2415200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:55:12	6/22/98
2415250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	15:58:20	6/22/98
2415300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:01:27	6/22/98
2415350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:04:35	6/22/98
2415400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:07:43	6/22/98
2415450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:10:50	6/22/98
2415500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	10000	OK, 0 RxD errors	PDA errors	0	0	0	16:11:36	6/22/98
2415550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:14:44	6/22/98
2415600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:17:51	6/22/98
2415650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:20:59	6/22/98
2415700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:24:06	6/22/98
2415750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:27:14	6/22/98
2415800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:30:22	6/22/98
2415850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:33:30	6/22/98
2415900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:36:37	6/22/98
2415950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:39:45	6/22/98
2416000000	0.3	49999	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	1	1	1	16:44:46	6/22/98
2416050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:47:54	6/22/98
2416100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:51:01	6/22/98
2416150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:54:08	6/22/98
2416200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	16:57:16	6/22/98
2416250000	0.3	49662	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	1	1	1	17:02:17	6/22/98
2416300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	49998	OK, 0 RxD errors	PDA errors	0	0	0	17:05:25	6/22/98
2416350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	49998	OK, 0 RxD errors	PDA errors	0	0	0	17:08:32	6/22/98
2416400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	17:11:40	6/22/98
2416450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	17:14:48	6/22/98
2416500000	0.3	49114	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	RxD errors	PDA errors	1	1	1	17:19:48	6/22/98
2416550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	17:22:56	6/22/98
2416600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	17:26:04	6/22/98
2416650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	17:29:11	6/22/98
2416700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	17:32:19	6/22/98

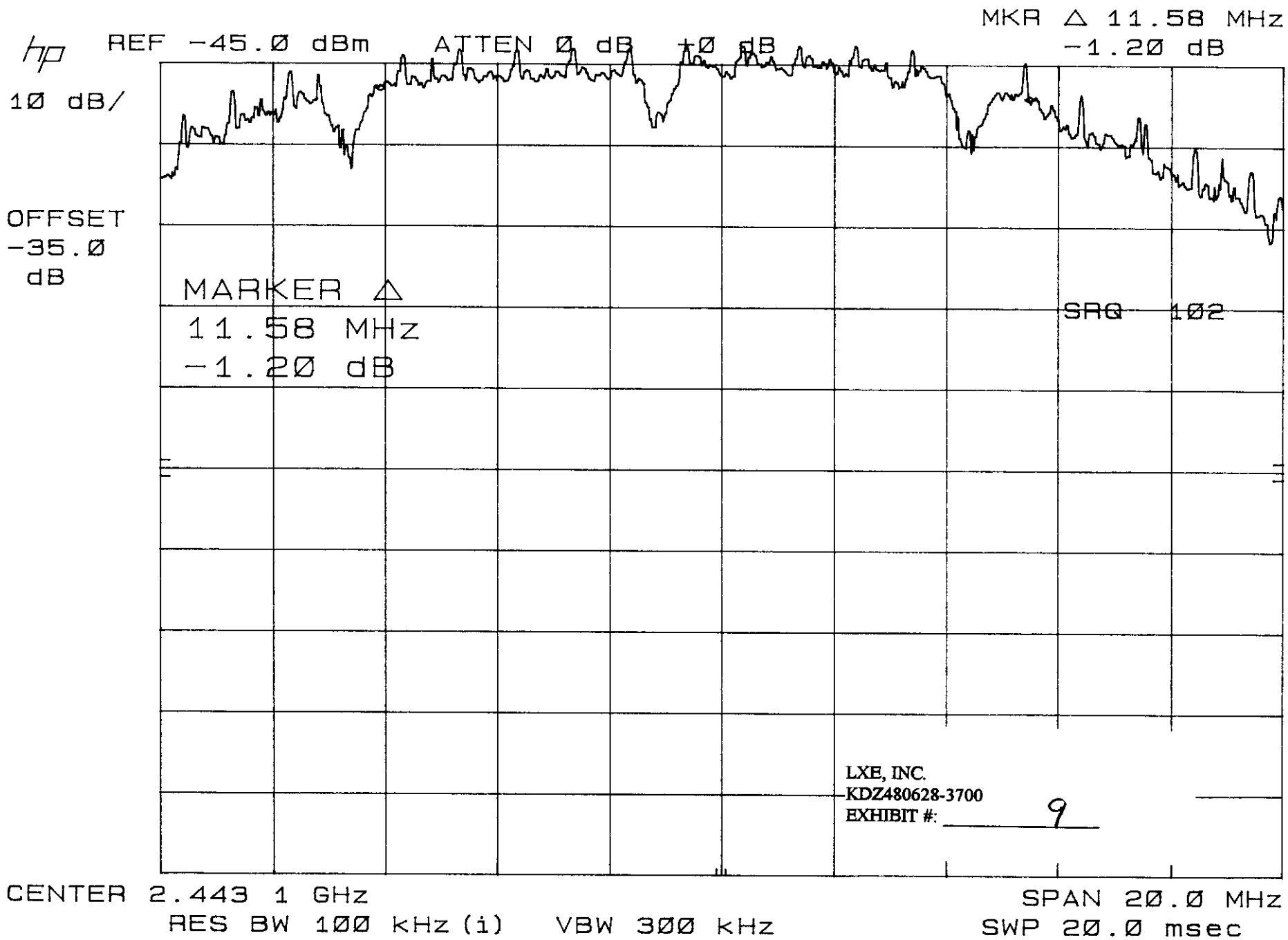
2418450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	19:37:14	6/22/98
2418500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	19:40:19	6/22/98
2418550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	19:43:29	6/22/98
2418600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	19:46:34	6/22/98
2418650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	19:49:41	6/22/98
2418700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	19:52:50	6/22/98
2418750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	19:55:58	6/22/98
2418800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	19:59:05	6/22/98
2418850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:02:13	6/22/98
2418900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:05:21	6/22/98
2418950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:08:29	6/22/98
2419000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:11:37	6/22/98
2419050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:14:45	6/22/98
2419100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:17:53	6/22/98
2419150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:21:01	6/22/98
2419200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:24:08	6/22/98
2419250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:27:16	6/22/98
2419300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:30:23	6/22/98
2419350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:33:31	6/22/98
2419400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:36:39	6/22/98
2419450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:39:47	6/22/98
2419500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:42:55	6/22/98
2419550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:46:02	6/22/98
2419600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:49:10	6/22/98
2419650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:52:16	6/22/98
2419700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:55:26	6/22/98
2419750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	20:58:33	6/22/98
2419800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:01:42	6/22/98
2419850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:04:49	6/22/98
2419900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:07:57	6/22/98
2419950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:11:05	6/22/98
2420000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:14:13	6/22/98
2420050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:17:21	6/22/98
2420100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:20:29	6/22/98

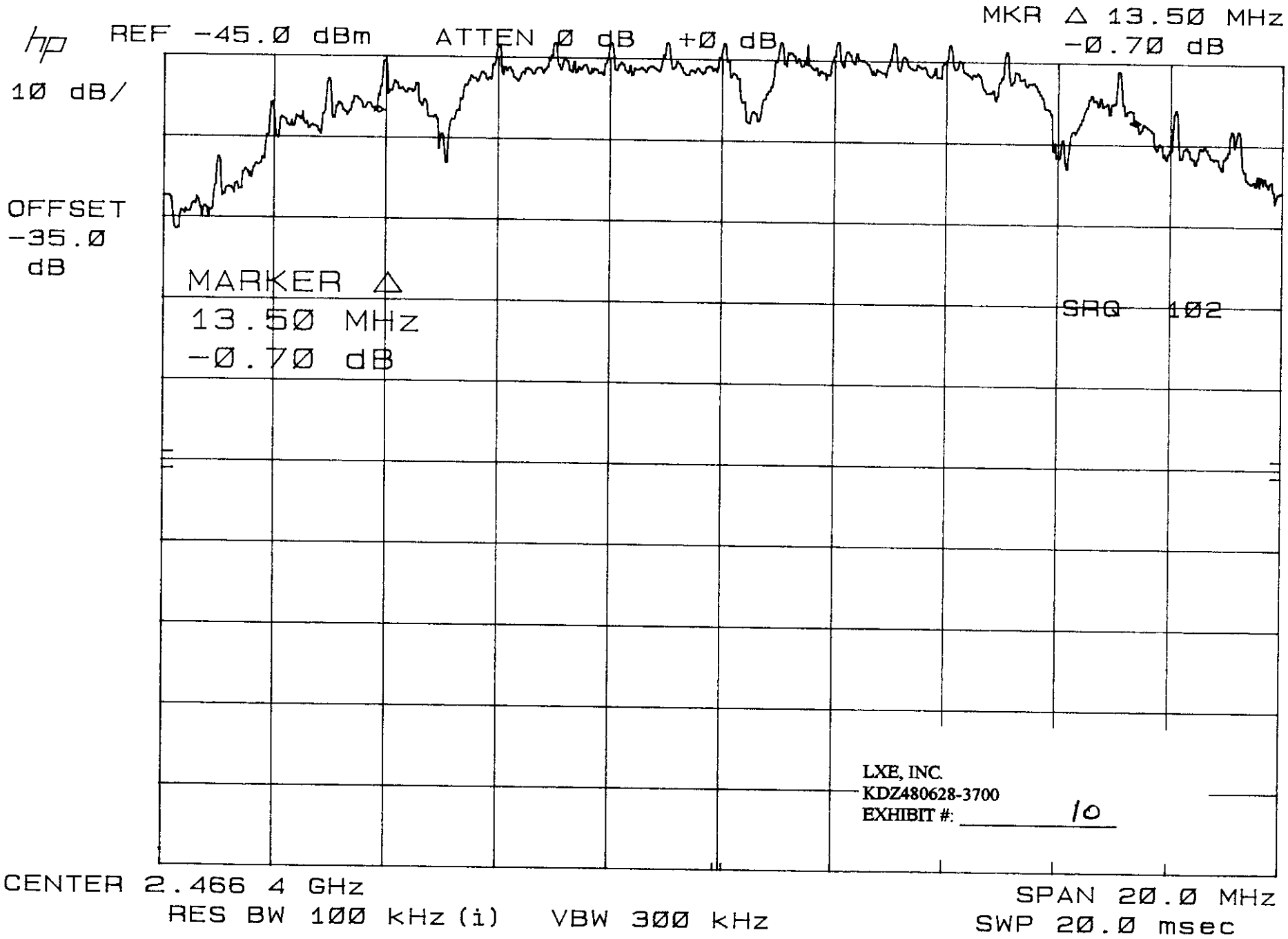
2420150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:23:38	8/22/98
2420200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:24:43	8/22/98
2420250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:29:51	8/22/98
2420300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:32:59	8/22/98
2420350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:36:06	8/22/98
2420400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:39:14	8/22/98
2420450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:42:22	8/22/98
2420500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:45:30	8/22/98
2420550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:48:37	8/22/98
2420600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:51:45	8/22/98
2420650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:54:53	8/22/98
2420700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	21:58:01	8/22/98
2420750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	21:58:06	8/22/98
2420800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:01:33	8/22/98
2420850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:05:01	8/22/98
2420900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	22:05:40	8/22/98
2420950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:08:35	8/22/98
2421000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	22:12:03	8/22/98
2421050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:18:02	8/23/98
2421100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:19:10	8/23/98
2421150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:22:17	8/23/98
2421200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:25:28	8/23/98
2421250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:26:34	8/23/98
2421300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	2:29:18	8/23/98
2421350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:32:26	8/23/98
2421400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:35:34	8/23/98
2421450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:38:42	8/23/98
2421500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:41:50	8/23/98
2421550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:44:58	8/23/98
2421600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:48:06	8/23/98
2421650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:51:14	8/23/98
2421700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:54:22	8/23/98
2421750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	2:57:30	8/23/98
2421800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:00:38	8/23/98

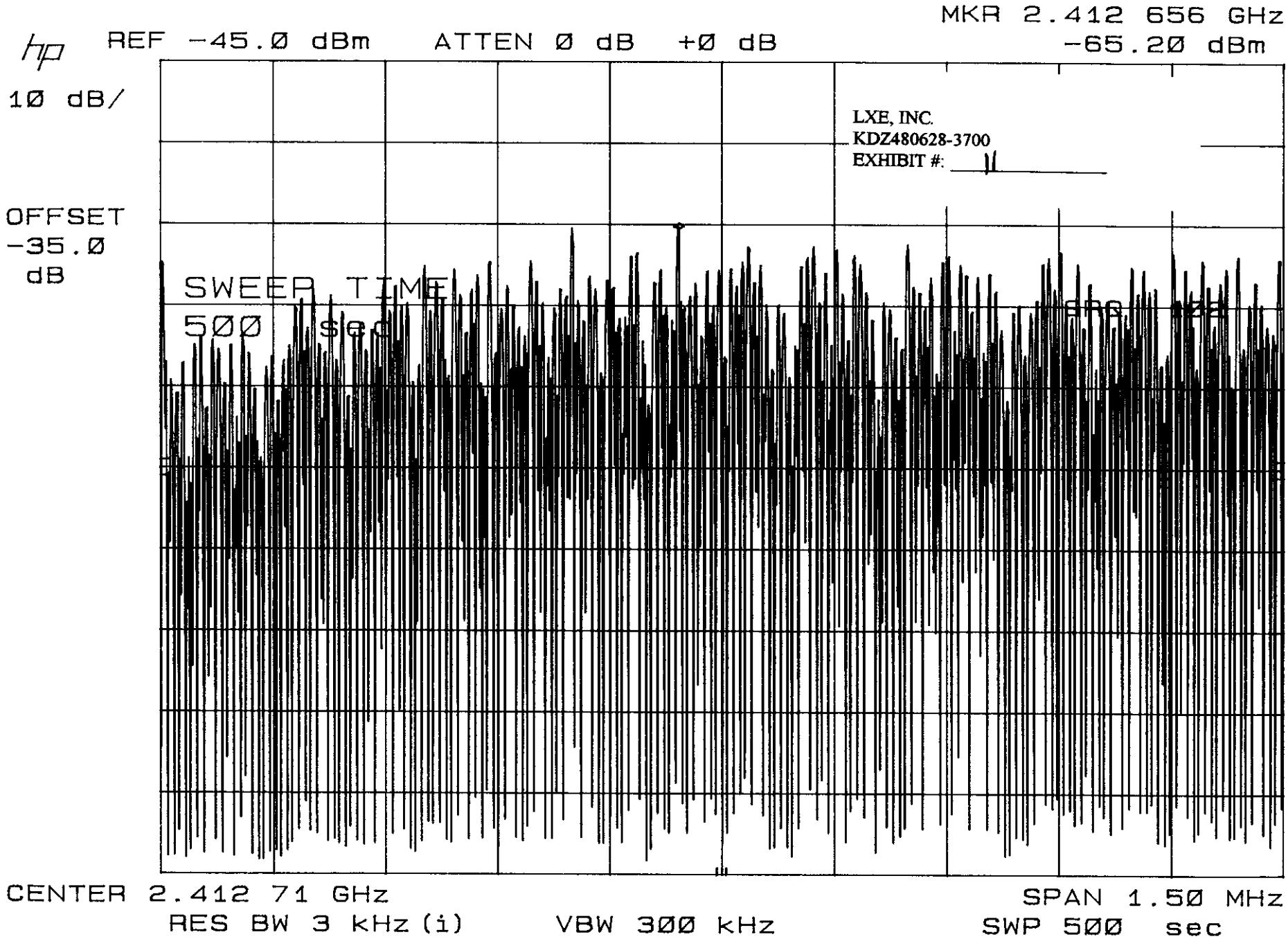
2421850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:03:45	8/23/98
2421900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:06:53	8/23/98
2421950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:10:00	8/23/98
2422000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:13:07	8/23/98
2422050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:16:15	8/23/98
2422100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:19:23	8/23/98
2422150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:22:31	8/23/98
2422200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:25:39	8/23/98
2422250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:28:46	8/23/98
2422300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:31:54	8/23/98
2422350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:35:02	8/23/98
2422400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:38:09	8/23/98
2422450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:41:17	8/23/98
2422500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:44:25	8/23/98
2422550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:47:33	8/23/98
2422600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:50:41	8/23/98
2422650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:53:49	8/23/98
2422700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	3:56:57	8/23/98
2422750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	3:57:42	8/23/98
2422800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:00:50	8/23/98
2422850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:03:58	8/23/98
2422900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:07:06	8/23/98
2422950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:10:14	8/23/98
2423000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:13:22	8/23/98
2423050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:16:29	8/23/98
2423100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:19:37	8/23/98
2423150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:22:45	8/23/98
2423200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	4:23:30	8/23/98
2423250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:28:38	8/23/98
2423300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:29:45	8/23/98
2423350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:32:53	8/23/98
2423400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:36:02	8/23/98
2423450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:39:09	8/23/98
2423500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:42:17	8/23/98

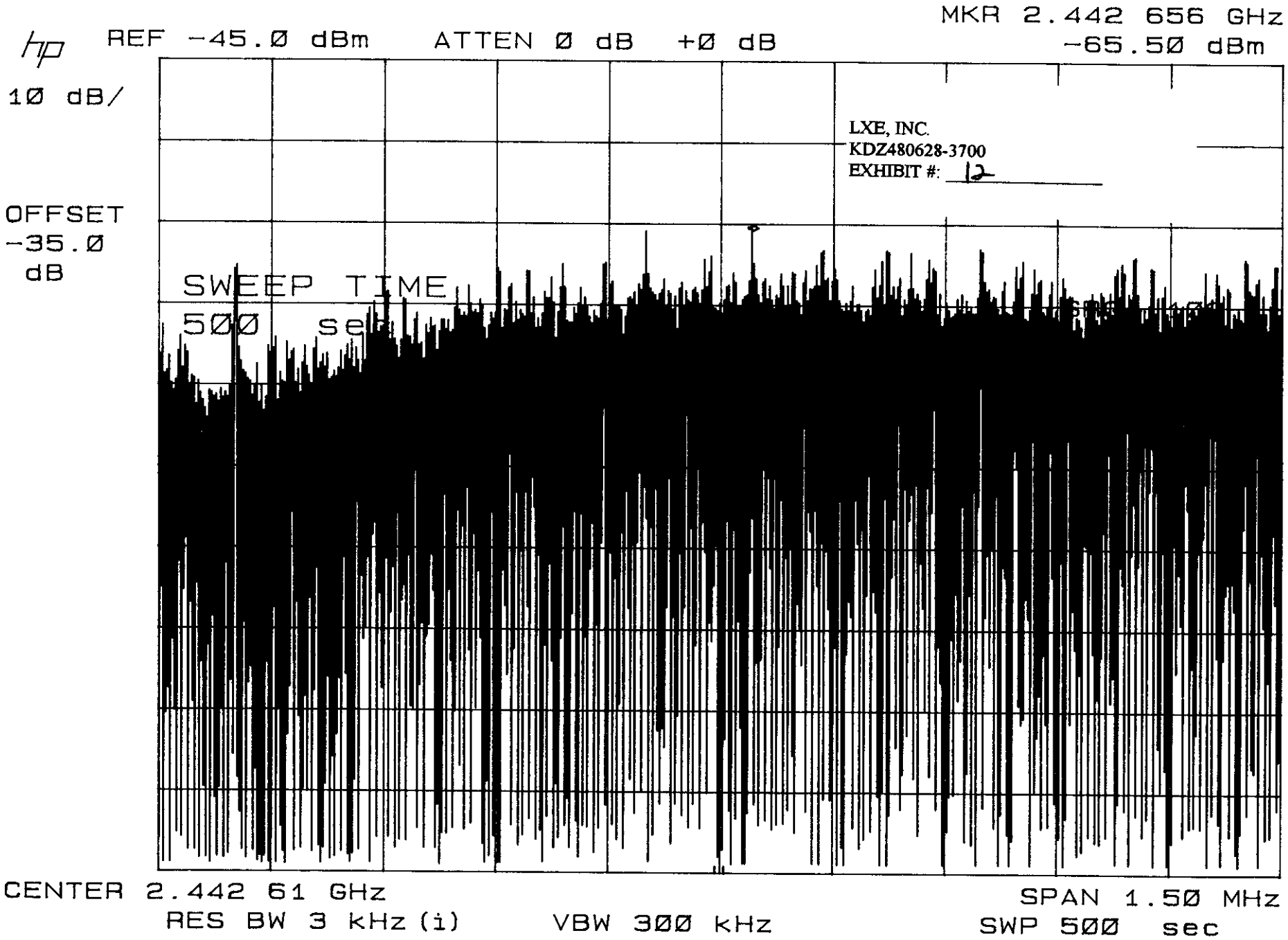
2423550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:45:24	6/23/98
2423600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:48:32	6/23/98
2423650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:51:40	6/23/98
2423700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:54:48	6/23/98
2423750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	4:57:55	6/23/98
2423800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:01:03	6/23/98
2423850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:04:12	6/23/98
2423900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:07:20	6/23/98
2423950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:10:27	6/23/98
2424000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:13:35	6/23/98
2424050000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:16:43	6/23/98
2424100000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:19:50	6/23/98
2424150000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:22:58	6/23/98
2424200000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:26:06	6/23/98
2424250000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	1000.2	OK, 0 RxD errors	PDA errors	0	0	0	5:29:12	6/23/98
2424300000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:32:19	6/23/98
2424350000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:35:27	6/23/98
2424400000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:38:34	6/23/98
2424450000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:41:42	6/23/98
2424500000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:44:50	6/23/98
2424550000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:47:58	6/23/98
2424600000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:51:05	6/23/98
2424650000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:54:13	6/23/98
2424700000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	5:57:22	6/23/98
2424750000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:00:30	6/23/98
2424800000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:03:37	6/23/98
2424850000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:06:45	6/23/98
2424900000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:09:53	6/23/98
2424950000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:13:00	6/23/98
2425000000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0	1000	0.1	50000	OK, 0 RxD errors	OK, No PDA errors	0	0	0	6:16:08	6/23/98
																					11	11	11		
																					3.91%	3.91%	3.91%		
																					<20% so OK	<20% so OK	<20% so OK		

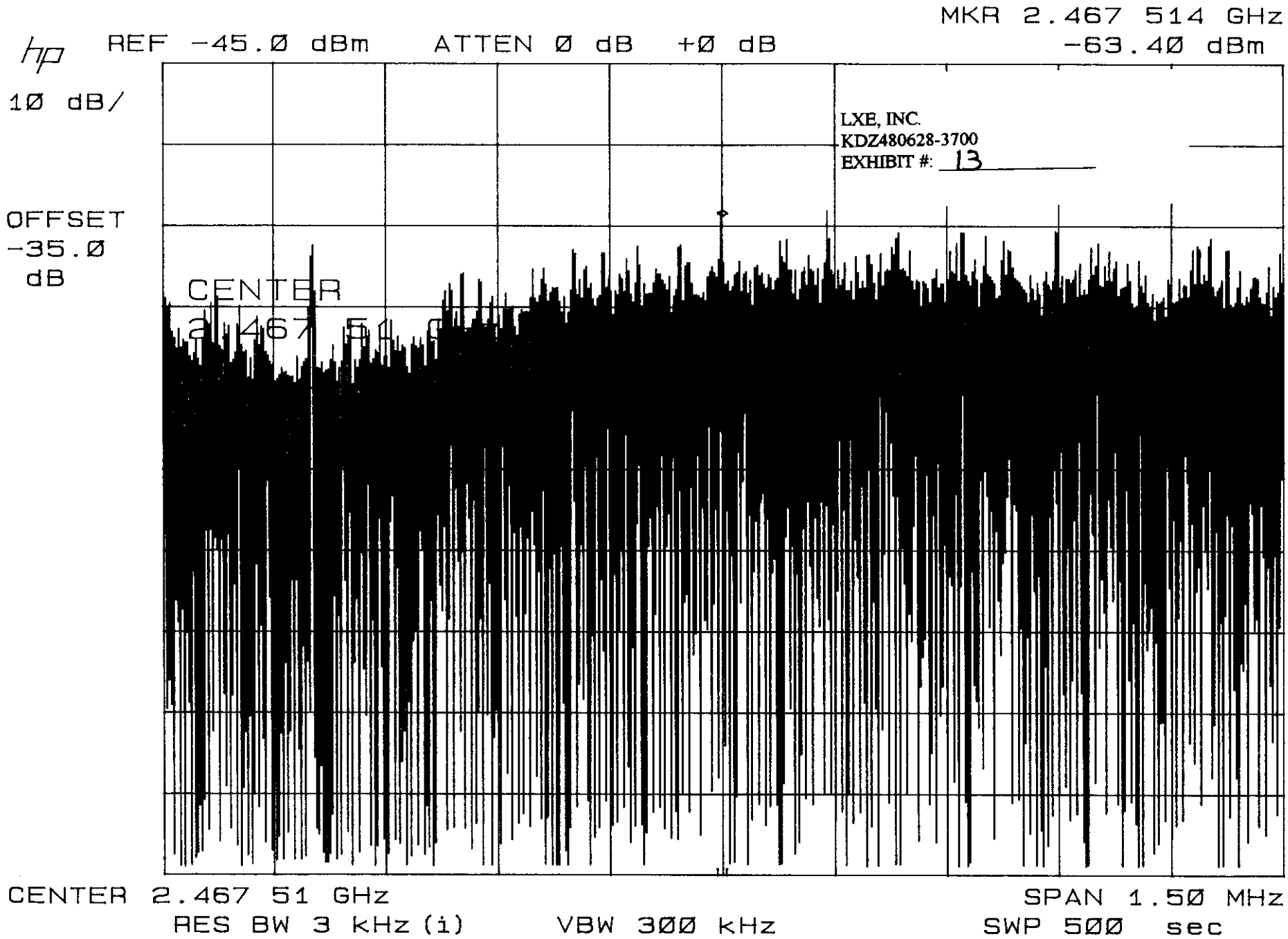

hp
REF -45.0 dBm
ATTEN 0 dB +0 dB
MKR Δ 11.78 MHz
-0.50 dB
10 dB/
OFFSET
-35.0
dB
MARKER Δ
11.78 MHz
-0.50 dB
DL
-95.0
dBm
LXE, INC.
KDZ480628-3700
EXHIBIT #: 8
CENTER 2.411 4 GHz
RES BW 100 kHz (i)
VBW 300 kHz
SPAN 20.0 MHz
SWP 20.0 msec

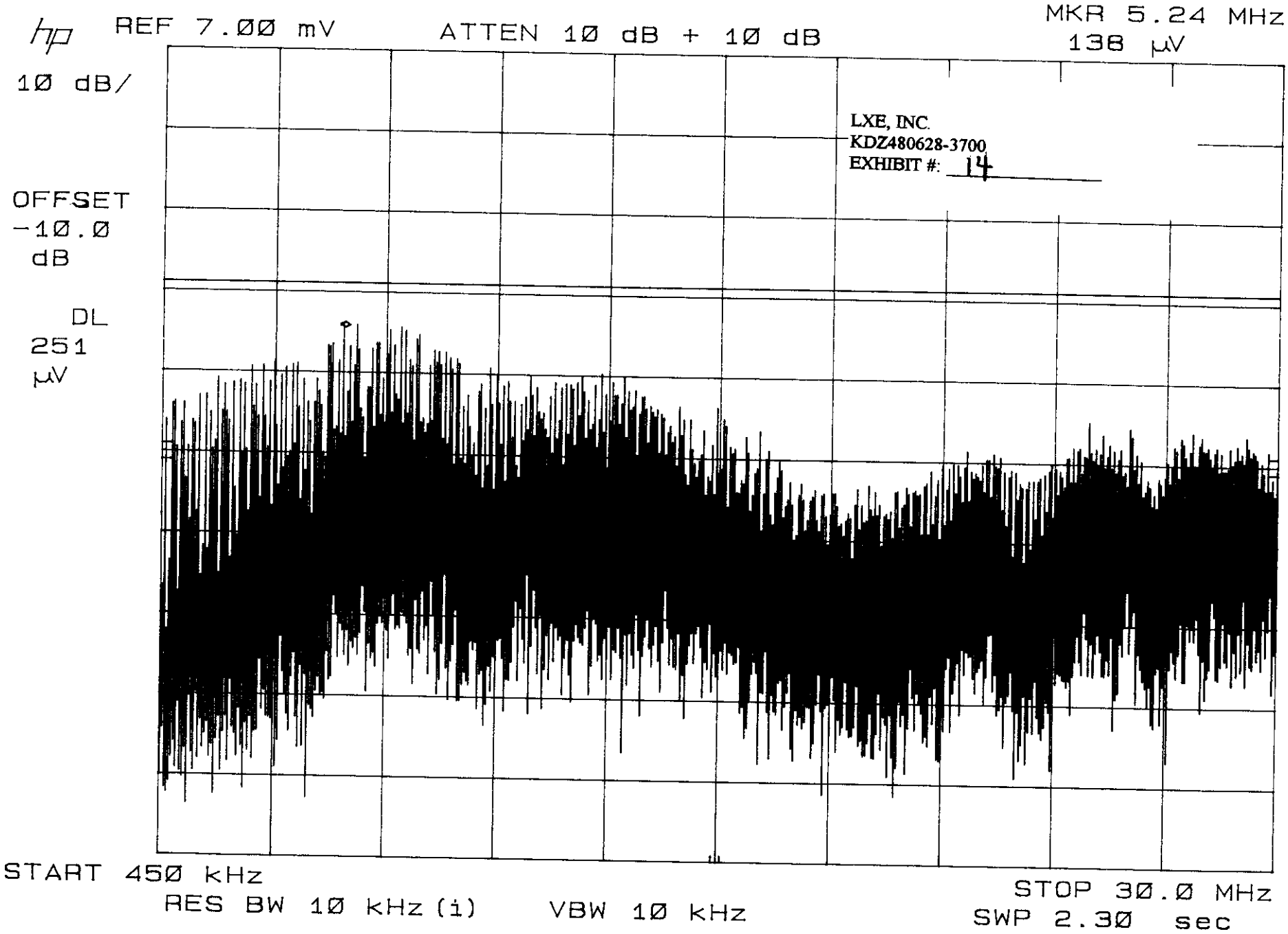

hp
REF -45.0 dBm
ATTEN 0 dB +0 dB
MKR Δ 11.58 MHz
-1.20 dB
10 dB/
OFFSET
-35.0
dB
MARKER Δ
11.58 MHz
-1.20 dB
SRQ 102
LXE, INC.
KDZ480628-3700
EXHIBIT #: 9
CENTER 2.443 1 GHz
SPAN 20.0 MHz
RES BW 100 kHz (i)
VBW 300 kHz
SWP 20.0 msec

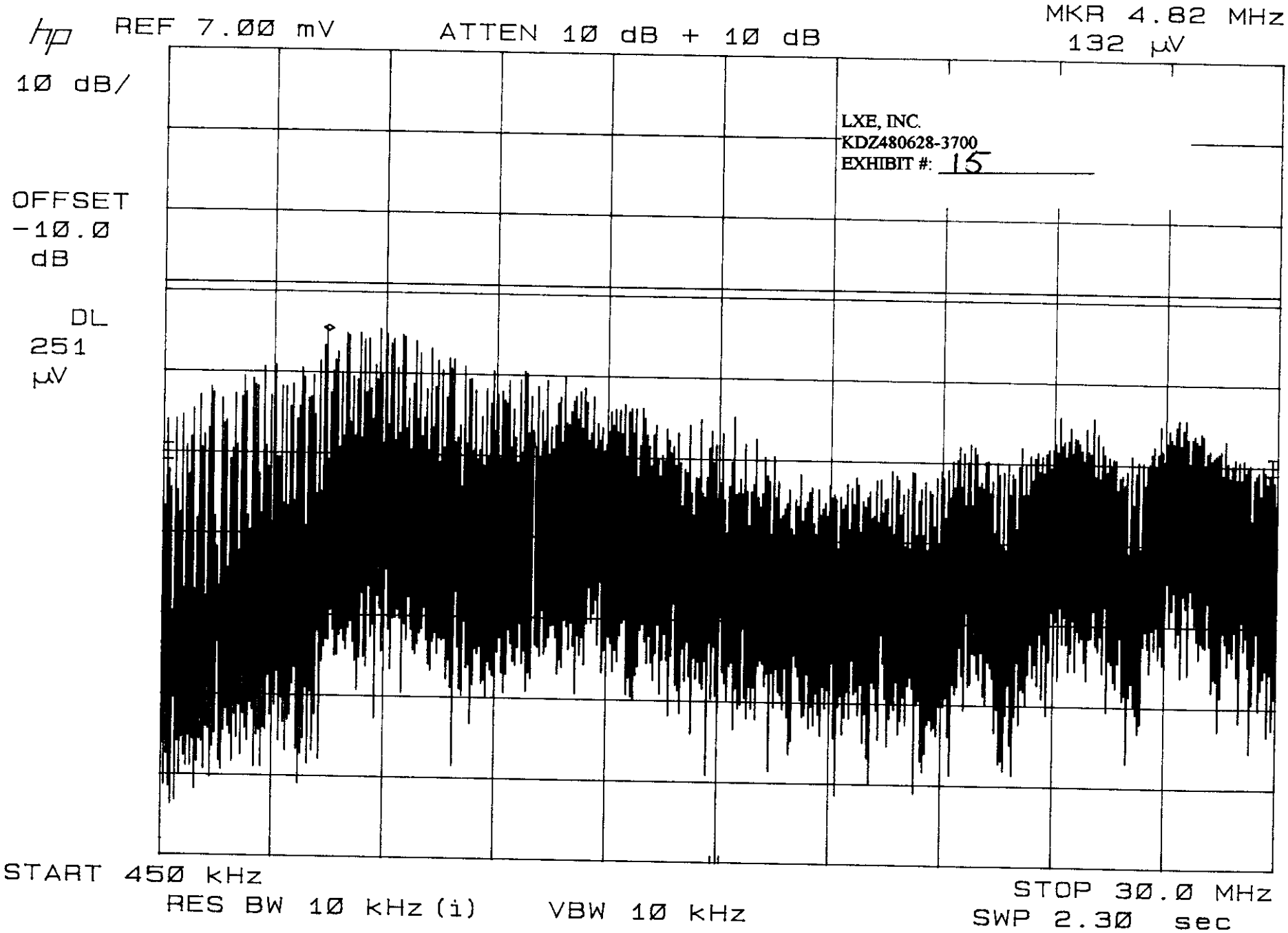

hp
REF -45.0 dBm
ATTEN 0 dB +0 dB
MKR Δ 13.50 MHz
-0.70 dB
10 dB/
OFFSET
-35.0
dB
MARKER Δ
13.50 MHz
-0.70 dB
SRQ 102
LXE, INC.
KDZ480628-3700
EXHIBIT #: 10
CENTER 2.466 4 GHz
RES BW 100 kHz (i)
VBW 300 kHz
SPAN 20.0 MHz
SWP 20.0 msec


MKR 2.412 656 GHz
REF -45.0 dBm ATTEN 0 dB +0 dB
-65.20 dBm
10 dB/
LXE, INC.
KDZ480628-3700
EXHIBIT #:
OFFSET
-35.0
dB
SWEEP TIME
500 sec
CENTER 2.412 71 GHz
SPAN 1.50 MHz
RES BW 3 kHz (i)
VBW 300 kHz
SWP 500 sec


MKR 2.442 656 GHz
REF -45.0 dBm
ATTEN 0 dB +0 dB
-65.50 dBm
10 dB/
OFFSET
-35.0
dB
LXE, INC.
KDZ480628-3700
EXHIBIT #: 12
SWEEP TIME
500 sec
CENTER 2.442 61 GHz
SPAN 1.50 MHz
RES BW 3 kHz (i)
VBW 300 kHz
SWP 500 sec


MKR 2.467 514 GHz
REF -45.0 dBm ATTEN 0 dB +0 dB
-63.40 dBm
10 dB/
OFFSET
-35.0
dB
LXE, INC.
KDZ480628-3700
EXHIBIT #: 13
CENTER
2.467 51 G
CENTER 2.467 51 GHz
SPAN 1.50 MHz
RES BW 3 kHz (i)
VBW 300 kHz
SWP 500 sec


hp
REF 7.00 mV
ATTEN 10 dB + 10 dB
MKR 5.24 MHz
138 µV
10 dB/
OFFSET
-10.0
dB
DL
251
µV
LXE, INC.
KDZ480628-3700
EXHIBIT #: 14
START 450 kHz
RES BW 10 kHz (i)
VBW 10 kHz
STOP 30.0 MHz
SWP 2.30 sec


hp
REF 7.00 mV
ATTEN 10 dB + 10 dB
MKR 4.82 MHz
132 µV
10 dB/
OFFSET
-10.0
dB
DL
251
µV
LXE, INC.
KDZ480628-3700
EXHIBIT #: 15
START 450 kHz
RES BW 10 kHz (i)
VBW 10 kHz
STOP 30.0 MHz
SWP 2.30 sec

APPLICANT: LXE, ıc.
FCCID : KDZ480628-3700

TEST EQUIPMENT LIST

1. Spectrum Analyzer: Hewlett Packard 8566B - Opt 462, w/ preselec tor 85685A, & Quasi-Peak Adapter HP 8565OA, & HP 8449B - OPT H02 Cal. 6/26/98
2. Signal Generator, Hewlett Packard 8640B, cal. 6/26/98
3. Eaton Biconnical Antenna Model 94455-1 20-200 MHz Serial No. 0997 Cal. 5/15/98
4. Electro-Metric Dipole Kit, 20-1000 MHz, Model TDA 25 cal. 5/15/97
5. Electro-Metric Horn 1-18 GHz, Model RGA-180, Cal. 8/15/98
6. Electro-Metric Antennas Model TDS-25-1, TDS-25-2, 5/15/97
7. Electro-Metric Line Impedance Stabilization Network Model No. EM-7821, Serial No. 101; 100KHz-30MHz 50uH. 12/3/97
8. Electro-Metric Line Impedance Stabilization Network Model No. EM-7820, Serial No. 2682; 10KHz-30MHz 50uH. 12/3/97
9. Special low loss cable was used above 1 GHz No. EM-7021, 50uH. 5/21/97
10. Peak Power Meter HP 8900C With Peak Power Sensor HP 84811A

TEST PROCEDURE

GENERAL: This report shall NOT be reproduced except in full without the written approval of TIMCO ENGINEERING, INC. Shielded interface cables were used in all cases except for cables connecting to the telephone line and the power cords. A test program was run which simulated a normal data transmission on a network.

POWER LINE CONDUCTED INTERFERENCE: The procedure used was ANSI STANDARD C63.4-1992 using a 50uH LISN. Both lines were observed with the UUT transmitting. The bandwidth of the spectrum analyzer was 10kHz with an appropriate sweep speed. The ambient temperature of the UUT was 76°F with a humidity of 55%.

BANDWIDTH 6.0dB: The measurements were made withe the spectrum analyzer's resolution bandwidth(RBW)=100KHz and the video bandwidth(VBW) =300KHz and the span set as shown on plot.

POWER OUTPUT: The RF power output was measured at the antenna feed point using a peak power meter.

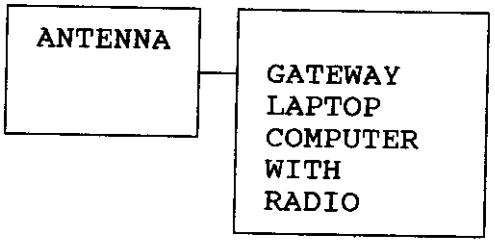
ANTENNA CONDUCTED EMISSIONS: The RBW=100KHz, VBW=300KHz and the span set to 100MHz and the spectrum was scanned from 30MHz to the 10th Harmonic of the fundamental.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.4-1992 using a HEWLETT PACKARD spectrum analyzer with a preselector. The bandwidth(RBW) of the spectrum analyzer was 100kHz up to 1GHz and 1.0MHz above 1GHz with an appropriate sweep speed. The VBW above 1.0GHz was = 10Hz. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The ambient temperature of the UUT was 84°F with a humidity of 66%.

APPLICANT: LXE, Inc.
FCC ID: KDZ480628-3700

PRODUCT DESCRIPTION:

The KDZ480628-3700 is a direct sequency spread spectrum radio that operates in the 2400-2483.5MHz band. The unit plugs into a PCMCIA SLOT. The radio is used with three(3) different types of antennas, an ONMI directional, a bi-directional patch, and a Yagi.



APPLICANT: LXE, Inc.

FCC ID: KDZ480628-3700 - ASSEMBLY #1 AND #3

NAME OF TEST: POWER LINE CONDUCTED INTERFERENCE

RULES PART NUMBER: 15.107(a)

REQUIREMENTS: .45 - 30 MHz 250 uV OR 47.96 dBuV

TEST PROCEDURE: ANSI STANDARD C63.4-1992. The spectrum was scanned from .45 to 30 MHz.

TEST DATA:

THE HIGHEST EMISSION READ FOR LINE 1 WAS 138uV @ 5.24MHz.

THE HIGHEST EMISSION READ FOR LINE 2 WAS 132uV @ 4.82MHz.

THE FOLLOWING GRAPHS REPRESENT THE EMISSIONS TAKEN FOR THIS DEVICE.

TEST RESULTS: Both lines were observed. The measurements indicate that the unit DOES appear to meet the FCC requirements for this class of equipment.

APPLICANT: LXE, Inc.

FCC ID: KDZ480628-3700

NAME OF TEST: 6.0dB BANDWIDTH

RULES PART NUMBER: 15.247(a)(2)

REQUIREMENTS: The 6.0dB bandwidth must be greater than 500KHz.

MEASUREMENT:

The 6.0dB bandwidth measured @ 2411.40MHz was 11.78MHz.
The 6.0dB bandwidth measured @ 2443.10MHz was 11.58MHz.
The 6.0dB bandwidth measured @ 2466.4MHz was 13.50MHz.

MEASUREMENT DATA: See plots, Exhibits #12, 13, & 14.

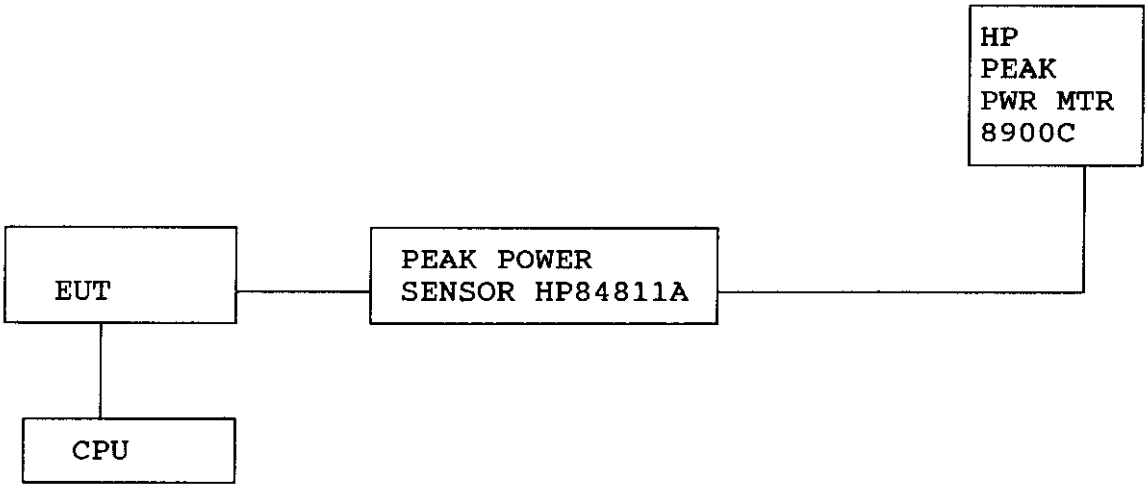
NAME OF TEST: POWER OUTPUT

RULES PART NUMBER: 15.247(b)

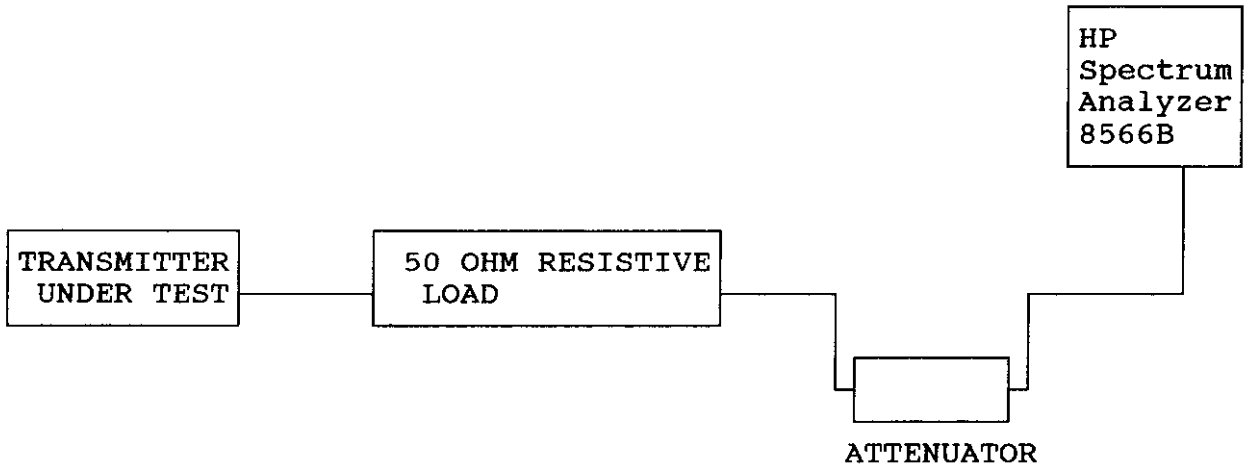
MEASUREMENT: 42.0 mWATTS or 16.0dBm @ 2412.0MHz

15.247(c) Method of Measuring RF Power output:

The Peak power Sensor was connected in place of the antenna.



15.247(c) Method of Measuring RF Conducted Spurious Emissions



NAME OF TEST: SPURIOUS EMISSIONS AT ANTENNA TERMINALS

REQUIREMENTS: Emissions must be at least 20dB down from the highest emission level within the authorized band as measured with a 100KHz RBW.

	EMISSION FREQUENCY MHz	dB BELOW CARRIER
LOW END		
	2412.4	00.0
	4823.8	-40.5
	7236.2	-58.0
	9648.6	-65.2
MIDDLE OF BAND		
	2441.0	0.0
	4843.6	-32.2
	7328.0	-50.2
	9723.0	-63.1
HIGH END OF BAND		
	2468.0	0.0
	4934.0	-37.4
	7402.0	-53.9

NOTE: THE SPECTRUM WAS SCANNED TO THE TENTH HARMONIC.

15.247(c),15.205 .5.209(b) Field strength spurious emissions:

REQUIREMENTS:

FIELD STRENGTH of Fundamental:	FIELD STRENGTH of Harmonics	§15.209	
902-928MHz		30 - 88 MHz	40 dBuV/m @3M
2.4-2.4835GHz		88 -216 MHz	43.5
		216 -960 MHz	46
127.38dBuV/m @3m	54 dBuV/m @3m	ABOVE 960 MHz	54dBuV/m

EMISSIONS RADIATED OUTSIDE OF THE SPECIFIED FREQUENCY BANDS, EXCEPT FOR HARMONICS, SHALL BE ATTENUATED BY AT LEAST 50 dB BELOW THE LEVEL OF THE FUNDAMENTAL OR TO THE GENERAL RADIATED EMISSION LIMITS IN 15.209, WHICHEVER IS THE LESSER ATTENUATION.

REQUIREMENTS: Emissions that fall in the restricted bands (15.205) must be less than 54dBuV/m otherwise the spurious and harmonics must be attenuated by at least 20dB.

TEST DATA:

EMISSION FREQUENCY MHz	METER READING @ 3m dBuV	COAX LOSS dB	ACF dB	FIELD STRENGTH dBuV/m	MARGIN dB	ANT.
62.69	23.70	0.80	7.48	31.98	8.02	H *
114.55	10.30	0.80	8.90	20.00	23.50	V *
123.38	15.90	0.80	10.75	27.45	16.05	V *
157.48	13.00	0.90	16.68	30.58	12.92	H *
167.10	15.70	0.90	18.02	34.62	8.88	H *
168.03	15.90	0.90	18.21	35.01	8.49	H *
171.82	13.30	0.90	17.90	32.10	11.40	H *
186.15	14.30	0.90	14.09	29.29	14.21	H *
192.01	13.50	0.90	13.46	27.86	15.64	H *
207.73	13.00	1.20	12.15	26.35	17.15	H *
210.84	18.30	1.20	12.24	31.74	11.76	H *
225.56	19.60	1.20	12.67	33.47	12.53	H *
226.57	18.20	1.20	12.70	32.10	13.90	H *
250.63	16.30	1.40	13.39	31.09	14.91	H *
270.63	14.70	1.40	13.97	30.07	15.93	V *
275.67	16.70	1.40	14.14	32.24	13.76	H *
300.70	14.30	1.40	15.67	31.37	14.63	H *
308.39	16.90	1.40	15.40	33.70	12.30	V *
350.81	14.40	1.40	15.57	31.37	14.63	H *
Onmi directional Antenna						
2411.20	62.50	1.09	29.03	92.62	34.76	H
4824.00R	16.00	1.45	33.93	51.38	2.62	H
2442.00	62.80	1.10	29.10	93.00	34.38	H
4884.00R	14.90	1.46	33.99	50.35	3.65	H
7326.80R	8.50	1.83	36.74	47.07	6.93	H
2468.00	60.80	1.10	29.17	91.07	36.31	H
4936.00R	14.70	1.47	34.05	50.22	3.78	H
7402.00R	5.10	1.84	36.83	43.77	10.23	H

15.247(c),15.205 &15.209(b) Field strength of spurious emissions:

TEST DATA CONTD.:

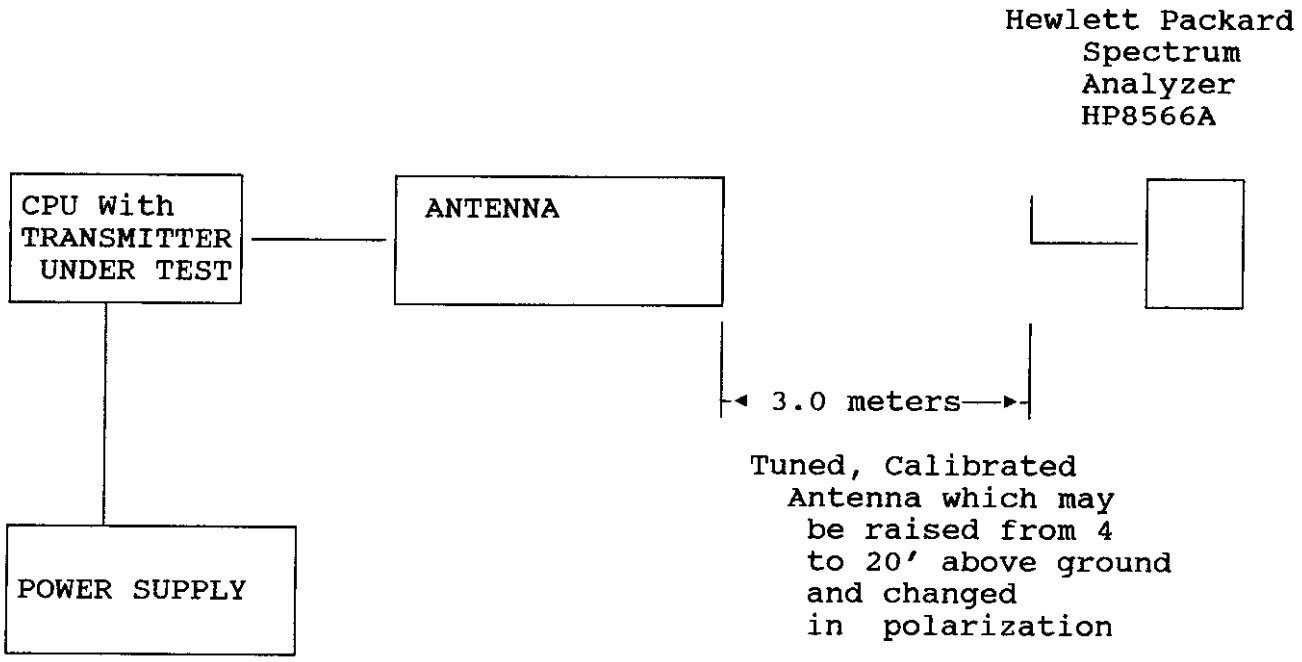
EMISSION FREQUENCY MHz	METER READING @ 3m dBuV	COAX LOSS dB	ACF dB	FIELD STRENGTH dBuV/m	MARGIN dB	ANT.
XERTEX 4/6dB Bi-Directinal Patch Antenna						
2413.60	73.20	1.09	29.03	103.33	0.0	H
4824.00R	15.60	1.45	33.93	50.98	3.02	H
7237.60	-1.00	1.82	36.64	37.46	45.87	V
2444.00	71.70	1.10	29.11	101.91	25.47	H
4888.00R	15.10	1.46	34.00	50.56	3.44	V
7328.00R	8.00	1.83	36.74	46.57	7.43	V
2466.40	73.30	1.10	29.17	103.57	23.81	H
4934.00R	14.9	1.47	34.05	50.42	3.58	H
7399.60R	2.30	1.84	36.82	40.97	13.03	V
Yagi Antenna						
2412.00	61.10	1.09	29.03	91.22	36.16	H
4824.00R	15.60	1.45	33.93	50.98	3.02	H
7236.00	1.40	1.82	36.64	39.86	14.14	H
2442.00	61.60	1.10	29.10	91.80	35.58	H
4884.00R	14.60	1.46	33.99	50.05	3.95	H
7326.00R	5.00	1.83	36.74	43.57	10.43	H
2466.40	64.40	1.10	29.17	94.67	32.71	H
4932.80R	14.8	1.47	34.05	50.32	3.68	H
7401.60R	7.50	1.84	36.83	46.17	7.83	H

* designates digital emission.

METHOD OF MEASUREMENT: The procedure used was ANSI STANDARD C63.4-1992 except the spread spectrum portion was connected to its custom antenna at a height of 1.5 meters.The spectrum was scanned from 30MHz to at least the tenth harmonic of the fundamental. Above 1.0GHz the RBW was 1.0MHz and the VBW was 10Hz. The case was opened and the power removed from the radio in order to determine which emissions were digital. Measurements were made at the open field test site of TIMCO ENGINEERING INC. located at 6051 N.W. 19th LANE, GAINESVILLE, FL 32605.

2.993(a)(b)
2.993(a)(b) Continued <u>Field strength of spurious emissions:</u>

Method of Measuring Radiated Spurious Emissions



Equipment placed 4' above ground
on a rotatable platform.

APPLICANT:	LXE, Inc.
FCC ID:	KDZ480628-3700
NAME OF TEST:	POWER SPECTRAL DENSITY
RULES PART NUMBER:	15.247(d)
REQUIREMENTS:	The peak level measured must be no greater tha +8.0dBm.
DATA:	THE PLOTS ARE SHOWN IN EXHIBITS 15, 16, & 17. The level at 2412.65MHz was -15.2dBm. The level at 2442.65MHz was -15.5dBm. The level at 2467.51MHz was -13.4dBm.

APPLICANT: LXE, Inc.

FCC ID: KDZ480628-3700

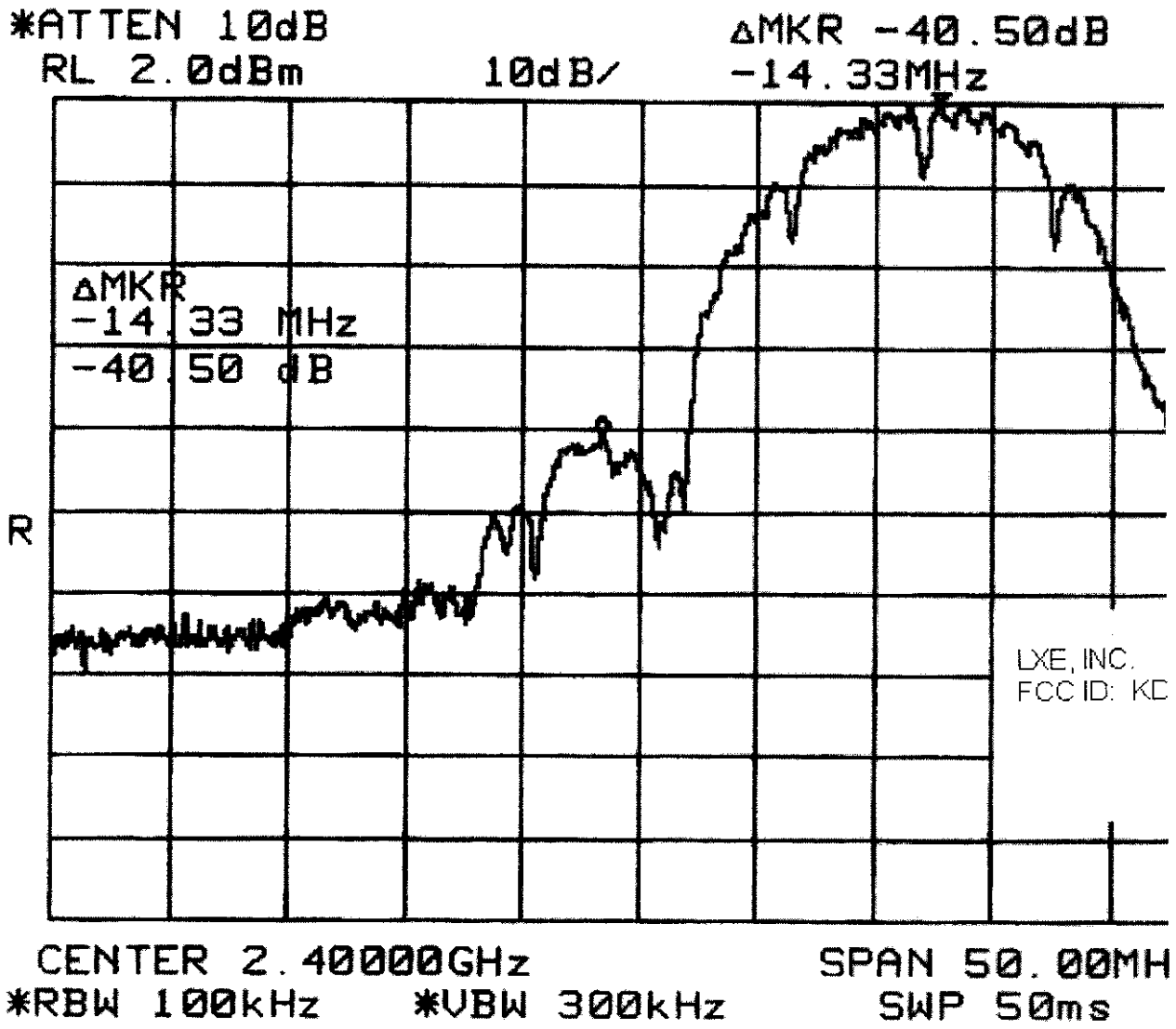
NAME OF TEST: PROCESSING GAIN

RULES PART NUMBER: 15.247(e)

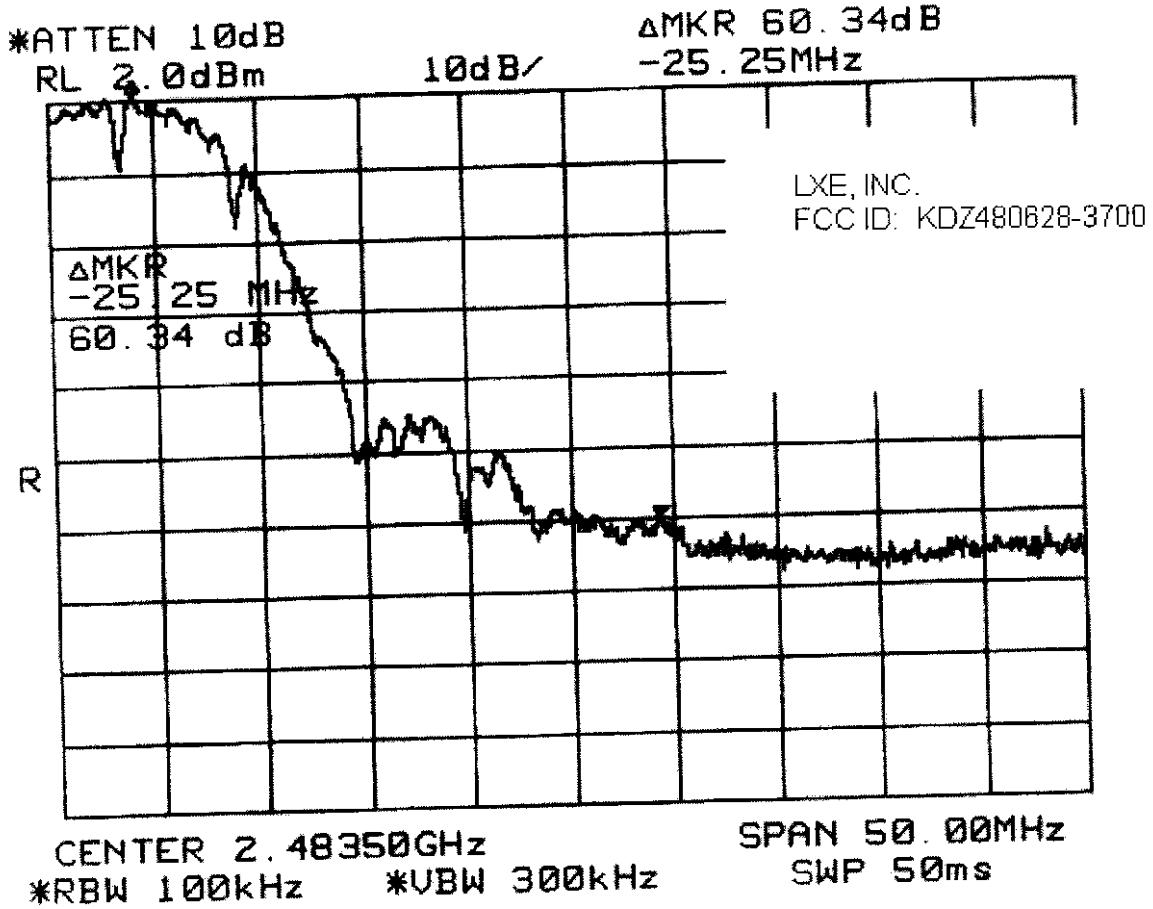
REQUIREMENTS:

DATA: The processing gain information supplied by the manufacturer is 10.5dB.

Attachment 2: Lower Bandedge Plot



Attachment 3: Upper Bandedge Plot



Attachment 4: Antenna Information and MPE Calculation

LXE, INC.
FCC ID: KDZ480

I. Antenna Information

The following antennas were submitted with the 480628-3700 radio for						
MANUFACTURER	MODEL	LXE PART NUMBER	TYPE	EQUIPMENT USED WITH	GAIN	Max. EIRP* (mW)
EMS	Spire	155581-0001	Omni	Access Point	6dB	158
EMS	Spire	155582-0001	Omni	Access Point	3dB	79.4
Cushcraft	None	153325-0001	Omni	Access Point	0dB	42.0
Cushcraft	None	481246-2400	Patch	Access Point	6dB	158
Cushcraft	None	153600-0001	Omni	Access Point	3dB	79.4
Lucent Technologies	None	480426-0425	Omni	Access Point	2.5dB	70.8
Cushcraft	None	153180-0001	Omni	1380/90 VMT	0dB	42.0
Xeterx	Bi-Directional	480424-3411	Patch	Access Point	4&6	158
Lucent Technologies	None	155520-0001	Patch	Amity-VP and Pt510	0dB	42.0
LXE	None	155522-0001	Omni	2330 VHHT	0dB	42.0
LXE	None	155526-0001	Patch	2330 VHHT	0dB	42.0

* Max EIRP was determined by the following formula:

$EIRP_{MAX} = EIRP_{RADIO}$ + Antenna Gain

Where $EIRP_{RADIO}$ was found to be 16dBm or 42 mW as given in the FCC test report

<u>EXAMPLE WITH THE 6dB SPIRE:</u>
$EIRP_{MAX}$ =16dBm + 6dBi = 22dBm or 158mW

II. Intended Uses

The theory of operation of the 480628-3700 is to establish a wireless LAN environment in a commercial or industrial environment. The two major applications for LXE with this type of equipment is inventory control healthcare as described below.

<u>Inventory control</u>
The first application is inventory control in a warehouse setting in which a ruggedized Vehicle Mount PC Terminal(VMT) equipped with a PCMCIA bus, is fitted with the radio. The operator of the VMT can manipu and track inventory and then transmit the information back to the Accesspoint, or base staion, via the RF li The Accesspoint is tied into a wired LAN via Ethernet for which the information is transferred to a main ser processing. The Accesspoint terminals are the base station devices, or Hubs, that portable terminals(Ter mentioned above other than Access points) communicate through. The Access points and the portables compatible and use the same plug-in radio module(480628-3700) to communicate to one another.

In this application, an Accesspoint is normally mounted to a wall such that sufficient coverage is maintaine Depending on the facility, one of the above mentioned antennas is chosen for maximum range and covera This antenna is connected to the radio via a custom designed connector with a nominal length of cable(Ty not longer than 1 meter) and an Ethernet connection is provided from the access point to the main server.

As mentioned above, the VMT's are merely ruggedized 386 PC's with PCMCIA interfaces. The VMT's are with one of the antennas above via a non-standard connector(RTNC). Each VMT and Accesspoint are lo with some specialized software and are then able to communicate.

<u>Healthcare</u>
Another popular application is in the healthcare field. The same premise mentioned above applies howev slightly different types of terminals. The terminals in this case are off the shelf pen type PC terminals(PC are operated with a pen stick as opposed to a keyboard. Again, an Accesspoint is located in a central location(Such as a main hall), and nurses and doctors use the terminals as data collection terminals(This eliminates the old charting method). This data is then sent via the RF link to the access point where it is [illegible] into the PC via Ethernet. Due to the difference in terminals, other antennas(as listed above)

downloaded into the PC via Ethernet. Due to the [illegible]
need to be used. In each case a specialized connector is used to couple the antenna to the radio.

III. MPE Calculations

In this section, worst case calculations are offered to demonstrate compliance with the Limits of Maximum Permissible Exposure. Calculations were made with reference to OET bulletin 65, Edition 97-01, August 1

After evaluation of the document, Equation 5 in section 2 is determined to be relevant to LXE equipment. equation is given as :

$S=EIRP/4\pi R^2 = (1.64)ERP/4\pi R^2 = (0.41)ERP/\pi R^2$

Where
S = Power Density(mW/cm^2)
EIRP = Equivalent(or effective) isotropically radiated power
ERP = Power referenced to a half-wave dipole radiator
R = Distance from center of radiation pattern to the point of interest

Given:
- Radio ERP = 42 mW or 16 dBm as measured and given in page 6 of FCC test report for the 480628-radio.
- EIRP = 1.64xERP

The results obtained by these calculations were compared to the limits given in Table 1 of Appendix A of document.

Access Point Antennas

EMS 6dB Spire(155581-0001)
This antenna will be used in various applications requiring placement of it in a variety of settings. Howeve typical use of this antenna is thought to be worst case as it will be mounted vertically and flush with an ind ceiling.

Assuming
The average person is 6 feet or 1. 829 meters tall
The average height of an indoor ceiling in commercial environment is 10 feet or 3.05 meters.

Known
Antenna Length = 13.2cm

Therefore
R = 3.05m(Ceiling Height) - 1.829m(Average Person Height) - .132m(Antenna Length) = 1.089m
ERP_T = 16dBm(Radio ERP) + 6dBi(Antenna Gain) = 22dBm or 158mW

Result
$S = (0.41)ERP/\pi R^2 = (0.41)158mW/\pi(108.9cm)^2$
$S = .002mW/cm^2$

The above result is well below the specified $5mW/cm^2$ for Occupational/Controlled Exposure environmen well below the $1mW/cm^2$ for General Population/Controlled Exposure environments.

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Xertex 4/6dB Patch(480424-3411)
This antenna is a flat patch antenna and will be used in various applications requiring placement in a variety of settings. However, the typical use of this antenna is thought to be worst case as it will be mounted such that it hangs from an indoor ceiling. The antenna has a height of 4 inches and includes a 3 inch mounting bracket that causes the antenna to hang vertically from the ceiling a total of 7 inches.

Assuming
The average person is 6 feet or 1.829 meters tall
The average height of an indoor ceiling in commercial environment is 10 feet or 3.05 meters.

Known
Antenna Length = 4 inches or 10.2 cm
Antenna Mount = 3 inches or 7.62 cm

Therefore
R = 3.05m(Ceiling Height) - 1.829m(Average Person Height) - .330m(Antenna Length) = .891m
ERP = 16dBm(Radio ERP) + 6dBi(Antenna Gain) = 22dBm or 158mW

R = 11.2 cm

Result
$S = (0.41)ERP/\pi R^2 = (0.41)158mW/\pi(17.82cm)^2$
$S = .065mW/cm^2$

The above result is well below the specified $5mW/cm^2$ for Occupational/Controlled Exposure environments, and well below the $1mW/cm^2$ for General Population/Controlled Exposure environments.

Portable Terminals

Cushcraft 0dB Omni(153180-0001)
This antenna is used on the Ruggedized Vehicle Mount Terminal(VMT) PC. The PC is mounted on a fork lift truck, approximately .5m in front and .3m above the drivers head. Simple Trigonometry yields an R distance of 58.3 cm from the radiating element to the point of interest, the drivers head.

Therefore
R = 58.3cm
ERP = 15dBm(Radio ERP) + 0dBi(Antenna Gain) = 15dBm or 42mW

R = 5.8 cm

Result
$S = (0.41)ERP/\pi R^2 = (0.41)42mW/\pi(58.3cm)^2$
$S = .002mW/cm^2$

The above result is well below the specified $5mW/cm^2$ for Occupational/Controlled Exposure environments, and well below the $1mW/cm^2$ for General Population/Controlled Exposure environments.

Lucent Technologies 0dB Patch Antenna(155520-0001)
This antenna is used in the Pen Terminal type PC's mentioned above. The antenna is mounted on the front edge of the PC in an outward direction from the user. The antennas are located approximately 15cm, but not closer that 10cm. In the spirit of worst case scenarios, 10cm will be used for the calculations.

Therefore
R = 10.0cm
ERP = 16dBm(Radio ERP) + 0dBi(Antenna Gain) = 16dBm or 42mW

R = 5.8 cm for S = 1 mW/cm²

Result
$S = (0.41)ERP/\pi R^2 = (0.41)42mW/\pi(10.0cm)^2$
$S = .054mW/cm^2$

The above result is well below the specified $5mW/cm^2$ for Occupational/Controlled Exposure environments, and well below the $1mW/cm^2$ for General Population/Controlled Exposure environments.

LXE, INC.
FCC ID: K

LXE 0dB Patch Antennas(155522-0001 and 155526-0001)
These antennas are used in a diversity scheme in a handheld PC terminal. the device, and in the recommended use of the terminal the antennas are at from the users hand.

For $S = 1 mW/(cm^2)$
$R = 5.8 cm$

Therefore
R = 6.35cm
ERP_T = 16dBm(Radio ERP) + 0dBi(Antenna Gain) = 16dBm or 42mW

Result
$S = (0.41)ERP/\pi R^2 = (0.41)42mW/\pi(6.35cm)^2$
$S = .140mW/cm^2$

The above result is well below the specified $5mW/cm^2$ for Occupational/Cor well below the $1mW/cm^2$ for General Population/Controlled Exposure envirc

LXE, INC.
FCC ID: KDZ480628-370[

EMS 3dB Spire(155582-0001)
This antenna will be used in various applications requiring placement of it in a variety of settings. However typical use of this antenna is thought to be worst case as it will be mounted vertically and flush with an indo ceiling.

Assuming
The average person is 6 feet or 1. 829 meters tall
The average height of an indoor ceiling in commercial environment is 10 feet or 3.05 meters.

Known
Antenna Length = 3.81cm

Therefore
R = 3.05m(Ceiling Height) - 1.829m(Average Person Height) - .0381m(Antenna Length) = 1.183m
ERP_T = 16dBm(Radio ERP) + 3dBi(Antenna Gain) = 19dBm or 79.4mW

Result
$S = (0.41)ERP/\pi R^2 = (0.41)79.4mW/\pi(118.3cm)^2$
$S = .740\mu W/cm^2$

The above result is well below the specified $5mW/cm^2$ for Occupational/Controlled Exposure environment well below the $1mW/cm^2$ for General Population/Controlled Exposure environments.

Cushcraft 15dB Yagi(460601-3020)
This antenna is used to create a wireless bridge between large distances. They are usually used in pairs mounted outside on the respective buildings roof. Minimum height is typically at 10m.

Assuming
The average person is 6 feet or 1. 829 meters tall

Therefore
R = 10m(Roof Height) - 1.829m(Average Person Height) = 8.171m
ERP_T = 16dBm(Radio ERP) + 15dBi(Antenna Gain) = 31dBm or 1259mW

Result
$S = (0.41)ERP/\pi R^2 = (0.41)1259mW/\pi(817.1cm)^2$
$S = .025\mu W/cm^2$

The above result is well below the specified $5mW/cm^2$ for Occupational/Controlled Exposure environmen well below the $1mW/cm^2$ for General Population/Controlled Exposure environments.

Cushcraft 0dB Omni(153325-0001)
This antenna will be used in various applications requiring placement of it in a variety of settings. Howev typical use of this antenna is thought to be worst case as it will be mounted vertically and flush with an in ceiling.

Assuming
The average person is 6 feet or 1. 829 meters tall
The average height of an indoor ceiling in commercial environment is 10 feet or 3.05 meters.

Known
Antenna Length = 21.6cm

Therefore
R = 3.05m(Ceiling Height) - 1.829m(Average Person Height) - .261m(Antenna Length) = .960m
ERP_T = 16dBm(Radio ERP) + 0dBi(Antenna Gain) = 16dBm or 42mW

Result
$S = (0.41)ERP/\pi R^2 = (0.41)42.0mW/\pi(96.0cm)^2$
$S = .595\mu W/cm^2$

S = .99μW/cm²

The above result is well below the specified 5mW/cm² for Occupational/Controlled Exposure environme
well below the 1mW/cm² for General Population/Controlled Exposure environments.

LXE, INC.
FCC ID: KDZ480628-3700

Cushcraft 3dB Omni(153600-0001)
This antenna will be used in various applications requiring placement of it in a variety of settings. However typical use of this antenna is thought to be worst case as it will be mounted vertically and flush with an indo ceiling.

Assuming
The average person is 6 feet or 1. 829 meters tall
The average height of an indoor ceiling in commercial environment is 10 feet or 3.05 meters.

Known
Antenna Length = 33.0cm

Therefore
R = 3.05m(Ceiling Height) - 1.829m(Average Person Height) - .330m(Antenna Length) = .891m
ERP_T = 16dBm(Radio ERP) + 0dBi(Antenna Gain) = 16dBm or 42mW

Result
$S = (0.41)ERP/\pi R^2 = (0.41)42.0mW/\pi(89.1cm)^2$
$S = .690\mu W/cm^2$

The above result is well below the specified $5mW/cm^2$ for Occupational/Controlled Exposure environment well below the $1mW/cm^2$ for General Population/Controlled Exposure environments.

Cushcraft 6dB Patch(15481246-2400)
This antenna is a flat patch antenna and will be used in various applications requiring placement in a varie settings. However, the typical use of this antenna is thought to be worst case as it will be mounted flush a a wall and next to an indoor ceiling.

Assuming
The average person is 6 feet or 1. 829 meters tall
The average height of an indoor ceiling in commercial environment is 10 feet or 3.05 meters.

Known
Antenna Length = 10.2cm

Therefore
R = 3.05m(Ceiling Height) - 1.829m(Average Person Height) - .330m(Antenna Length) = .891m
ERP_T = 16dBm(Radio ERP) + 6dBi(Antenna Gain) = 22dBm or 158mW

Result
$S = (0.41)ERP/\pi R^2 = (0.41)158mW/\pi(10.2cm)^2$
$S = .198mW/cm^2$

The above result is well below the specified $5mW/cm^2$ for Occupational/Controlled Exposure environmen well below the $1mW/cm^2$ for General Population/Controlled Exposure environments.

Lucent Range Extender 2.5 (480426-0425)
This antenna is a desktop type antenna for use in either the Accesspoint or a portable terminal. Howeve use of this antenna is thought to be worst case as it will likely be located on a desk next to an Accesspoir

Assuming
The antenna is located at arms length-30 inches or 76.2cm

R = 7.5 cm

Therefore
R = 76.2cm(Antenna at Arms Length)
ERP_T = 16dBm(Radio ERP) + 2.5dBi(Antenna Gain) = 18.5dBm or 70.8mW

Result
$S = (0.41)ERP/\pi R^2 = (0.41)70.8mW/\pi(76.2cm)^2$
$S = .002mW/cm^2$

The above result is well below the specified 5mW/cm^2 for Occupational/Controlled Exposure environmei
well below the 1mW/cm^2 for General Population/Controlled Exposure environments.