

Processing Gain of Direct Sequence Spread Spectrum



Product name: XI-626 Wireless LAN PCI Card

Tested by: Z-Com, Inc.

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FCC requirements: The processing gain of a direct sequence system shall be at least 10dB. The processing gain shall be determined from the ratio in dB of the signal-to-noise ratio with the system spreading code turned off to the signal-to-noise ratio with the system spreading code turned on, as measured at the demodulated output of the receiver.

This document contains theoretical calculation and test setup, procedure, measurement data and report.

Test equipment:

R&S FSEM20 spectrum analyzer

R&S SMIQ03B signal generator

Giga-tronics 8541C universal power meter

Hp8496B attenuator/110dB with 10dB step

Hp8494B attenuator/11dB with 1dB step

Hp11636BB power splitter

Desktop PC

Notebook PC

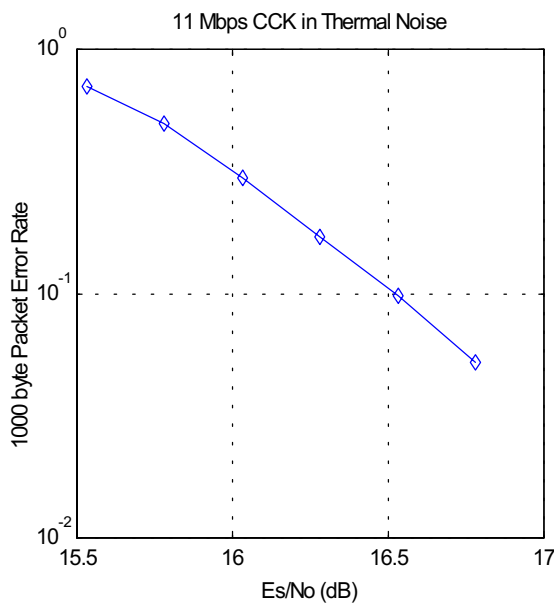
Theoretical calculation: The Processing gain is related to be jamming margin as follows:

$$G_p = \left(\frac{S}{N} \right)_{output} + \left(\frac{J}{S} \right) + L_{sys}$$

Where $BER_{reference}$ is the reference bit error ratio with its corresponding, theoretical output signal to noise ratio per symbol, $(S/N)_{output}$, (J/S) is the jamming margin(jamming signal power relative to desired signal power), and L_{sys} is the system losses.

For 5.5Mbps and 11Mbps case: The HFA3861B direct sequence spread spectrum baseband processor use CCK modulation which is a form of M-ary Orthogonal Keying. The Probability of error for generalized M-ary orthogonal signaling using coherent demodulation is given by:

$$P_e = 1 - P_{c1} = 1 - \frac{1}{\sqrt{2\pi}} \int_{-\frac{S_{01}}{N_0}}^{\infty} \left[2(1 - Q\left\{z + \sqrt{2\frac{E_b}{\eta}}\right\}) \right]^{\frac{M}{2}-1} \exp\left\{-\frac{z^2}{2}\right\} dz$$



The FER performance curve is derived by [1] as left graph:

Therefore:

$$G_p = (E_s/N_0)_o + (J/S) + L_{sys} \\ = 16.4 + 2.0 + (J/S)$$

and, $G_p = 18.4 + (J/S)$ must be greater than 10dB

For the case of the HFA3861B, the bit rates are 1, 2, 5.5 and 11Mbps. The corresponding symbol rates are 1, 1, 1.375 and 1.375 Msps. The chip rate is always 11Mcps, so the ratio of chip rate to symbol rate is 11:1 for the 1, 2Mbps and 8:1 for 5.5, 11Mbps rates. Since the symbol rate to bit rate is less than 10 for the higher rates, we supply the theoretical processing gain and coding are utilized. This is a reasonable in that they cannot be separated in the demodulation process. If a separable FEC coding scheme were used, we would not be comfortable making this assertion.

As can be seen from the curve of figure 1, the Es/No is 16.4dB at the PER of 8%. It is well know that the Eb/No of BPSK is 9.6dB for 1e-5 BER, so therefore the coding gain of CCK over BPSK is 2.2dB. We add this to the processing gain of 9B to get 11.2dB overall processing gain for the CW jamming test.

Taking the calculation above, if the $(J/S) > -8.4\text{dB}$ then the equipment passes the CW jamming test.

For 1 and 2Mbps case, the modulation is either DBPSK or DQPSK for 1 and 2Mbps. With differential coding, there is an error extension factor of 2 which comes from the fact that if one symbol is error, then the next will be demodulated in error too. Since its phase is dependant on the change of phase from symbol to symbol. In DBPSK, this result is a simple factor of two in BER. With DQPSK, the picture is a little muddled in that a symbol error may cause one or two bit errors since two bits are carried per symbol. From the book of Fig.7.2, Viterbi, A.J. Principles of Coherent Communications, Page 192 (New York; McGraw-Hill, 1996), the E_b/N_0 of BPSK is 9.6dB. When operating DQPSK at 2Mbps, the E_b/N_0 remains essentially the same, but the E_s/N_0 goes up by 3dB. So the $(S/N)_0$ is 12.6.

Test procedure:

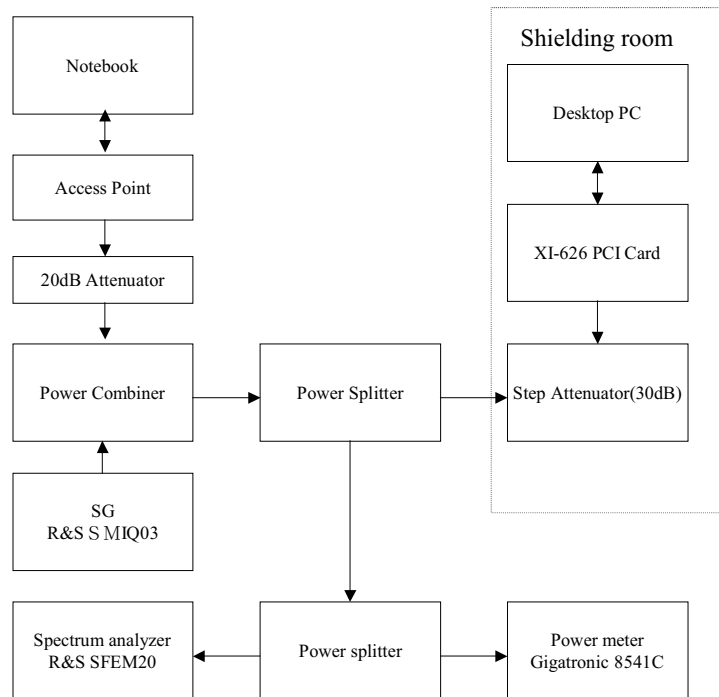
Obtain the simplex link shown. Perform all independent instrumentation calibration prior to this procedure. Set operating levels using fixed and variable attenuator in system to meet the following objectives:

1. Signal Power at receiver is approximately -60dBm .
2. Signal Power at power meter between -20 and -30dBm .
3. Use spectrum analyzer to monitor test.
4. Ensure that CW jammer generator RF output is disabled and measure the power at the power meter port using Giga-tronics 8541C power meter. This is relative power, S_r .
5. Disable TX and set CW jammer output frequency equal to the carrier frequency and enable generator output. Set reference CW jammer power level at power meter port 8.4dB below S_r .
6. Disable CW jammer and re-establish Link. FER test should be essentially error free.
7. Enable the CW jammer at the reference power level and verify that FER at the reference power level and verify that FER test indicate less than 8%.
8. Alternatively, adjust the CW jammer level to that which causes 8% FER.
9. Repeat Step 7 for uniform steps in frequency increments of 50KHz across the receiver passband with the CW jammer. In this case, the receiver passband is $\pm 8.5\text{MHz}$

Test setup: as shown at next page

Processing gain test result summary:

Frequency channel	Frequency	Data rate (Mbps)	Gp (dB)
1	2412MHz	11	11.1
6	2437MHz	11	10.7
11	2462MHz	11	11.4



11Mbps Low Channel Processing Gain							
Gp=(S/N)o+Mj+Lsys							
Freq. (MHz)	Gp (dB)	(S/N)o (dB)	Mj = J/S (dB)	Lsys (dB)	Jammer (dBm)	Lvl (dBm)	FER
2403.50	17.0	16.4	-1.4	2	-31.4	-30	<=8
2403.55	16.7	16.4	-1.7	2	-31.7	-30	<=8
2403.60	17.0	16.4	-1.4	2	-31.4	-30	<=8
2403.65	15.9	16.4	-2.5	2	-32.5	-30	<=8
2403.70	15.8	16.4	-2.6	2	-32.6	-30	<=8
2403.75	15.9	16.4	-2.5	2	-32.5	-30	<=8
2403.80	15.4	16.4	-3.0	2	-33.0	-30	<=8
2403.85	15.2	16.4	-3.2	2	-33.2	-30	<=8
2403.90	15.9	16.4	-2.5	2	-32.5	-30	<=8
2403.95	16.5	16.4	-1.9	2	-31.9	-30	<=8
2404.00	16.8	16.4	-1.6	2	-31.6	-30	<=8
2404.05	17.2	16.4	-1.2	2	-31.2	-30	<=8
2404.10	16.0	16.4	-2.4	2	-32.4	-30	<=8
2404.15	15.0	16.4	-3.4	2	-33.4	-30	<=8
2404.20	15.1	16.4	-3.3	2	-33.3	-30	<=8
2404.25	14.5	16.4	-3.9	2	-33.9	-30	<=8
2404.30	14.3	16.4	-4.1	2	-34.1	-30	<=8
2404.35	14.3	16.4	-4.1	2	-34.1	-30	<=8
2404.40	14.4	16.4	-4.0	2	-34.0	-30	<=8
2404.45	15.1	16.4	-3.3	2	-33.3	-30	<=8
2404.50	15.5	16.4	-2.9	2	-32.9	-30	<=8
2404.55	15.6	16.4	-2.8	2	-32.8	-30	<=8
2404.60	14.3	16.4	-4.1	2	-34.1	-30	<=8
2404.65	14.2	16.4	-4.2	2	-34.2	-30	<=8
2404.70	14.3	16.4	-4.1	2	-34.1	-30	<=8
2404.75	14.2	16.4	-4.2	2	-34.2	-30	<=8
2404.80	13.6	16.4	-4.8	2	-34.8	-30	<=8
2404.85	13.8	16.4	-4.6	2	-34.6	-30	<=8
2404.90	14.0	16.4	-4.4	2	-34.4	-30	<=8
2404.95	14.8	16.4	-3.6	2	-33.6	-30	<=8

2405.00	14.5	16.4	-3.9	2	-33.9	-30	<=8
2405.05	14.4	16.4	-4.0	2	-34.0	-30	<=8
2405.10	15.1	16.4	-3.3	2	-33.3	-30	<=8
2405.15	14.2	16.4	-4.2	2	-34.2	-30	<=8
2405.20	14.2	16.4	-4.2	2	-34.2	-30	<=8
2405.25	14.3	16.4	-4.1	2	-34.1	-30	<=8
2405.30	13.9	16.4	-4.5	2	-34.5	-30	<=8
2405.35	14.4	16.4	-4.0	2	-34.0	-30	<=8
2405.40	13.8	16.4	-4.6	2	-34.6	-30	<=8
2405.45	13.5	16.4	-4.9	2	-34.9	-30	<=8
2405.50	13.7	16.4	-4.7	2	-34.7	-30	<=8
2405.55	13.8	16.4	-4.6	2	-34.6	-30	<=8
2405.60	14.1	16.4	-4.3	2	-34.3	-30	<=8
2405.65	13.8	16.4	-4.6	2	-34.6	-30	<=8
2405.70	14.5	16.4	-3.9	2	-33.9	-30	<=8
2405.75	14.0	16.4	-4.4	2	-34.4	-30	<=8
2405.80	14.1	16.4	-4.3	2	-34.3	-30	<=8
2405.85	13.9	16.4	-4.5	2	-34.5	-30	<=8
2405.90	13.6	16.4	-4.8	2	-34.8	-30	<=8
2405.95	14.6	16.4	-3.8	2	-33.8	-30	<=8
2406.00	14.1	16.4	-4.3	2	-34.3	-30	<=8
2406.05	14.0	16.4	-4.4	2	-34.4	-30	<=8
2406.10	14.1	16.4	-4.3	2	-34.3	-30	<=8
2406.15	14.5	16.4	-3.9	2	-33.9	-30	<=8
2406.20	14.8	16.4	-3.6	2	-33.6	-30	<=8
2406.25	14.4	16.4	-4.0	2	-34.0	-30	<=8
2406.30	13.9	16.4	-4.5	2	-34.5	-30	<=8
2406.35	13.3	16.4	-5.1	2	-35.1	-30	<=8
2406.40	14.0	16.4	-4.4	2	-34.4	-30	<=8
2406.45	14.2	16.4	-4.2	2	-34.2	-30	<=8
2406.50	12.9	16.4	-5.5	2	-35.5	-30	<=8
2406.55	13.2	16.4	-5.2	2	-35.2	-30	<=8
2406.60	13.9	16.4	-4.5	2	-34.5	-30	<=8
2406.65	14.4	16.4	-4.0	2	-34.0	-30	<=8

2406.70	14.3	16.4	-4.1	2	-34.1	-30	<=8
2406.75	13.9	16.4	-4.5	2	-34.5	-30	<=8
2406.80	14.6	16.4	-3.8	2	-33.8	-30	<=8
2406.85	14.8	16.4	-3.6	2	-33.6	-30	<=8
2406.90	14.3	16.4	-4.1	2	-34.1	-30	<=8
2406.95	14.2	16.4	-4.2	2	-34.2	-30	<=8
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2407.10	13.7	16.4	-4.7	2	-34.7	-30	<=8
2407.15	13.2	16.4	-5.2	2	-35.2	-30	<=8
2407.20	13.5	16.4	-4.9	2	-34.9	-30	<=8
2407.25	13.3	16.4	-5.1	2	-35.1	-30	<=8
2407.30	13.4	16.4	-5.0	2	-35.0	-30	<=8
2407.35	13.5	16.4	-4.9	2	-34.9	-30	<=8
2407.40	13.7	16.4	-4.7	2	-34.7	-30	<=8
2407.45	13.8	16.4	-4.6	2	-34.6	-30	<=8
2407.50	13.4	16.4	-5.0	2	-35.0	-30	<=8
2407.55	13.3	16.4	-5.1	2	-35.1	-30	<=8
2407.60	13.4	16.4	-5.0	2	-35.0	-30	<=8
2407.65	12.9	16.4	-5.5	2	-35.5	-30	<=8
2407.70	12.7	16.4	-5.7	2	-35.7	-30	<=8
2407.75	12.6	16.4	-5.8	2	-35.8	-30	<=8
2407.80	12.3	16.4	-6.1	2	-36.1	-30	<=8
2407.85	12.6	16.4	-5.8	2	-35.8	-30	<=8
2407.90	12.6	16.4	-5.8	2	-35.8	-30	<=8
2407.95	12.7	16.4	-5.7	2	-35.7	-30	<=8
2408.00	12.8	16.4	-5.6	2	-35.6	-30	<=8
2408.05	12.8	16.4	-5.6	2	-35.6	-30	<=8
2408.10	13.1	16.4	-5.3	2	-35.3	-30	<=8
2408.15	13.1	16.4	-5.3	2	-35.3	-30	<=8
2408.20	13.2	16.4	-5.2	2	-35.2	-30	<=8
2408.25	12.9	16.4	-5.5	2	-35.5	-30	<=8
2408.30	12.2	16.4	-6.2	2	-36.2	-30	<=8
2408.35	12.3	16.4	-6.1	2	-36.1	-30	<=8

2408.40	12.2	16.4	-6.2	2	-36.2	-30	<=8
2408.45	11.8	16.4	-6.6	2	-36.6	-30	<=8
2408.50	11.9	16.4	-6.5	2	-36.5	-30	<=8
2408.55	11.3	16.4	-7.1	2	-37.1	-30	<=8
2408.60	10.9	16.4	-7.5	2	-37.5	-30	<=8
2408.65	11.3	16.4	-7.1	2	-37.1	-30	<=8
2408.70	10.7	16.4	-7.7	2	-37.7	-30	<=8
2408.75	11.0	16.4	-7.4	2	-37.4	-30	<=8
2408.80	11.7	16.4	-6.7	2	-36.7	-30	<=8
2408.85	11.3	16.4	-7.1	2	-37.1	-30	<=8
2408.90	11.1	16.4	-7.3	2	-37.3	-30	<=8
2408.95	11.2	16.4	-7.2	2	-37.2	-30	<=8
2409.00	11.1	16.4	-7.3	2	-37.3	-30	<=8
2409.05	11.1	16.4	-7.3	2	-37.3	-30	<=8
2409.10	11.5	16.4	-6.9	2	-36.9	-30	<=8
2409.15	10.8	16.4	-7.6	2	-37.6	-30	<=8
2409.20	10.8	16.4	-7.6	2	-37.6	-30	<=8
2409.25	10.6	16.4	-7.8	2	-37.8	-30	<=8
2409.30	10.2	16.4	-8.2	2	-38.2	-30	<=8
2409.35	10.8	16.4	-7.6	2	-37.6	-30	<=8
2409.40	10.2	16.4	-8.2	2	-38.2	-30	<=8
2409.45	10.1	16.4	-8.3	2	-38.3	-30	<=8
2409.50	10.7	16.4	-7.7	2	-37.7	-30	<=8
2409.55	10.8	16.4	-7.6	2	-37.6	-30	<=8
2409.60	10.8	16.4	-7.6	2	-37.6	-30	<=8
2409.65	11.0	16.4	-7.4	2	-37.4	-30	<=8
2409.70	10.3	16.4	-8.1	2	-38.1	-30	<=8
2409.75	10.5	16.4	-7.9	2	-37.9	-30	<=8
2409.80	11.1	16.4	-7.3	2	-37.3	-30	<=8
2409.85	11.0	16.4	-7.4	2	-37.4	-30	<=8
2409.90	10.4	16.4	-8.0	2	-38.0	-30	<=8
2409.95	10.9	16.4	-7.5	2	-37.5	-30	<=8
2410.00	10.8	16.4	-7.6	2	-37.6	-30	<=8
2410.05	10.8	16.4	-7.6	2	-37.6	-30	<=8

2410.10	10.4	16.4	-8.0	2	-38.0	-30	<=8
2410.15	10.4	16.4	-8.0	2	-38.0	-30	<=8
2410.20	10.3	16.4	-8.1	2	-38.1	-30	<=8
2410.25	10.1	16.4	-8.3	2	-38.3	-30	<=8
2410.30	10.1	16.4	-8.3	2	-38.3	-30	<=8
2410.35	10.8	16.4	-7.6	2	-37.6	-30	<=8
2410.40	11.3	16.4	-7.1	2	-37.1	-30	<=8
2410.45	11.1	16.4	-7.3	2	-37.3	-30	<=8
2410.50	11.0	16.4	-7.4	2	-37.4	-30	<=8
2410.55	11.0	16.4	-7.4	2	-37.4	-30	<=8
2410.60	11.0	16.4	-7.4	2	-37.4	-30	<=8
2410.65	11.5	16.4	-6.9	2	-36.9	-30	<=8
2410.70	11.0	16.4	-7.4	2	-37.4	-30	<=8
2410.75	11.8	16.4	-6.6	2	-36.6	-30	<=8
2410.80	10.9	16.4	-7.5	2	-37.5	-30	<=8
2410.85	10.9	16.4	-7.5	2	-37.5	-30	<=8
2410.90	11.5	16.4	-6.9	2	-36.9	-30	<=8
2410.95	10.8	16.4	-7.6	2	-37.6	-30	<=8
2411.00	11.4	16.4	-7.0	2	-37.0	-30	<=8
2411.05	10.6	16.4	-7.8	2	-37.8	-30	<=8
2411.10	11.0	16.4	-7.4	2	-37.4	-30	<=8
2411.15	11.0	16.4	-7.4	2	-37.4	-30	<=8
2411.20	10.9	16.4	-7.5	2	-37.5	-30	<=8
2411.25	11.2	16.4	-7.2	2	-37.2	-30	<=8
2411.30	11.4	16.4	-7.0	2	-37.0	-30	<=8
2411.35	11.4	16.4	-7.0	2	-37.0	-30	<=8
2411.40	11.9	16.4	-6.5	2	-36.5	-30	<=8
2411.45	12.2	16.4	-6.2	2	-36.2	-30	<=8
2411.50	11.6	16.4	-6.8	2	-36.8	-30	<=8
2411.55	11.7	16.4	-6.7	2	-36.7	-30	<=8
2411.60	11.5	16.4	-6.9	2	-36.9	-30	<=8
2411.65	11.2	16.4	-7.2	2	-37.2	-30	<=8
2411.70	11.8	16.4	-6.6	2	-36.6	-30	<=8
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2411.90	11.5	16.4	-6.9	2	-36.9	-30	<=8
2411.95	11.1	16.4	-7.3	2	-37.3	-30	<=8
2412.00	10.6	16.4	-7.8	2	-37.8	-30	<=8
2412.05	11.1	16.4	-7.3	2	-37.3	-30	<=8
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2412.15	11.8	16.4	-6.6	2	-36.6	-30	<=8
2412.20	11.4	16.4	-7.0	2	-37.0	-30	<=8
2412.25	11.2	16.4	-7.2	2	-37.2	-30	<=8
2412.30	11.7	16.4	-6.7	2	-36.7	-30	<=8
2412.35	11.0	16.4	-7.4	2	-37.4	-30	<=8
2412.40	10.9	16.4	-7.5	2	-37.5	-30	<=8
2412.45	11.0	16.4	-7.4	2	-37.4	-30	<=8
2412.50	11.0	16.4	-7.4	2	-37.4	-30	<=8
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2412.75	10.7	16.4	-7.7	2	-37.7	-30	<=8
2412.80	11.4	16.4	-7.0	2	-37.0	-30	<=8
2412.85	11.8	16.4	-6.6	2	-36.6	-30	<=8
2412.90	11.4	16.4	-7.0	2	-37.0	-30	<=8
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2413.15	11.0	16.4	-7.4	2	-37.4	-30	<=8
2413.20	11.3	16.4	-7.1	2	-37.1	-30	<=8
2413.25	11.0	16.4	-7.4	2	-37.4	-30	<=8
2413.30	10.5	16.4	-7.9	2	-37.9	-30	<=8
2413.35	11.0	16.4	-7.4	2	-37.4	-30	<=8
2413.40	10.8	16.4	-7.6	2	-37.6	-30	<=8
2413.45	10.7	16.4	-7.7	2	-37.7	-30	<=8

2413.50	11.3	16.4	-7.1	2	-37.1	-30	<=8
2413.55	11.2	16.4	-7.2	2	-37.2	-30	<=8
2413.60	11.2	16.4	-7.2	2	-37.2	-30	<=8
2413.65	11.7	16.4	-6.7	2	-36.7	-30	<=8
2413.70	11.4	16.4	-7.0	2	-37.0	-30	<=8
2413.75	11.5	16.4	-6.9	2	-36.9	-30	<=8
2413.80	12.0	16.4	-6.4	2	-36.4	-30	<=8
2413.85	11.7	16.4	-6.7	2	-36.7	-30	<=8
2413.90	11.3	16.4	-7.1	2	-37.1	-30	<=8
2413.95	10.9	16.4	-7.5	2	-37.5	-30	<=8
2414.00	10.4	16.4	-8.0	2	-38.0	-30	<=8
2414.05	10.8	16.4	-7.6	2	-37.6	-30	<=8
2414.10	10.8	16.4	-7.6	2	-37.6	-30	<=8
2414.15	10.1	16.4	-8.3	2	-38.3	-30	<=8
2414.20	10.8	16.4	-7.6	2	-37.6	-30	<=8
2414.25	11.0	16.4	-7.4	2	-37.4	-30	<=8
2414.30	10.9	16.4	-7.5	2	-37.5	-30	<=8
2414.35	11.2	16.4	-7.2	2	-37.2	-30	<=8
2414.40	11.5	16.4	-6.9	2	-36.9	-30	<=8
2414.45	12.0	16.4	-6.4	2	-36.4	-30	<=8
2414.50	11.2	16.4	-7.2	2	-37.2	-30	<=8
2414.55	11.9	16.4	-6.5	2	-36.5	-30	<=8
2414.60	11.9	16.4	-6.5	2	-36.5	-30	<=8
2414.65	11.1	16.4	-7.3	2	-37.3	-30	<=8
2414.70	11.3	16.4	-7.1	2	-37.1	-30	<=8
2414.75	11.3	16.4	-7.1	2	-37.1	-30	<=8
2414.80	11.6	16.4	-6.8	2	-36.8	-30	<=8
2414.85	10.7	16.4	-7.7	2	-37.7	-30	<=8
2414.90	11.0	16.4	-7.4	2	-37.4	-30	<=8
2414.95	11.4	16.4	-7.0	2	-37.0	-30	<=8
2415.00	11.6	16.4	-6.8	2	-36.8	-30	<=8
2415.05	12.0	16.4	-6.4	2	-36.4	-30	<=8
2415.10	12.1	16.4	-6.3	2	-36.3	-30	<=8
2415.15	12.5	16.4	-5.9	2	-35.9	-30	<=8

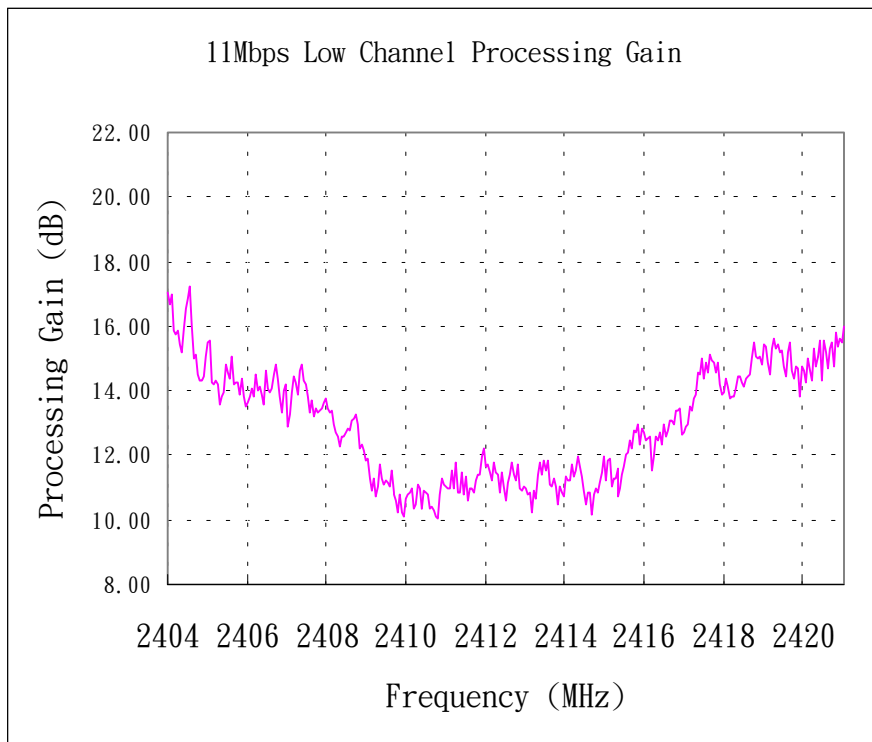
2415.20	12.2	16.4	-6.2	2	-36.2	-30	<=8
2415.25	12.8	16.4	-5.6	2	-35.6	-30	<=8
2415.30	12.7	16.4	-5.7	2	-35.7	-30	<=8
2415.35	13.0	16.4	-5.4	2	-35.4	-30	<=8
2415.40	12.3	16.4	-6.1	2	-36.1	-30	<=8
2415.45	12.9	16.4	-5.5	2	-35.5	-30	<=8
2415.50	12.7	16.4	-5.7	2	-35.7	-30	<=8
2415.55	12.5	16.4	-5.9	2	-35.9	-30	<=8
2415.60	12.5	16.4	-5.9	2	-35.9	-30	<=8
2415.65	12.6	16.4	-5.8	2	-35.8	-30	<=8
2415.70	11.6	16.4	-6.8	2	-36.8	-30	<=8
2415.75	12.0	16.4	-6.4	2	-36.4	-30	<=8
2415.80	12.6	16.4	-5.8	2	-35.8	-30	<=8
2415.85	12.5	16.4	-5.9	2	-35.9	-30	<=8
2415.90	12.7	16.4	-5.7	2	-35.7	-30	<=8
2415.95	12.3	16.4	-6.1	2	-36.1	-30	<=8
2416.00	12.9	16.4	-5.5	2	-35.5	-30	<=8
2416.05	12.6	16.4	-5.8	2	-35.8	-30	<=8
2416.10	12.8	16.4	-5.6	2	-35.6	-30	<=8
2416.15	13.1	16.4	-5.3	2	-35.3	-30	<=8
2416.20	13.1	16.4	-5.3	2	-35.3	-30	<=8
2416.25	13.0	16.4	-5.4	2	-35.4	-30	<=8
2416.30	13.4	16.4	-5.0	2	-35.0	-30	<=8
2416.35	13.4	16.4	-5.0	2	-35.0	-30	<=8
2416.40	13.5	16.4	-4.9	2	-34.9	-30	<=8
2416.45	12.7	16.4	-5.7	2	-35.7	-30	<=8
2416.50	12.7	16.4	-5.7	2	-35.7	-30	<=8
2416.55	12.9	16.4	-5.5	2	-35.5	-30	<=8
2416.60	13.0	16.4	-5.4	2	-35.4	-30	<=8
2416.65	13.5	16.4	-4.9	2	-34.9	-30	<=8
2416.70	13.4	16.4	-5.0	2	-35.0	-30	<=8
2416.75	13.8	16.4	-4.6	2	-34.6	-30	<=8
2416.80	13.9	16.4	-4.5	2	-34.5	-30	<=8
2416.85	14.6	16.4	-3.8	2	-33.8	-30	<=8

2416.90	14.5	16.4	-3.9	2	-33.9	-30	<=8
2416.95	15.0	16.4	-3.4	2	-33.4	-30	<=8
2417.00	14.4	16.4	-4.0	2	-34.0	-30	<=8
2417.05	14.9	16.4	-3.5	2	-33.5	-30	<=8
2417.10	14.6	16.4	-3.8	2	-33.8	-30	<=8
2417.15	15.1	16.4	-3.3	2	-33.3	-30	<=8
2417.20	14.9	16.4	-3.5	2	-33.5	-30	<=8
2417.25	14.8	16.4	-3.6	2	-33.6	-30	<=8
2417.30	14.6	16.4	-3.8	2	-33.8	-30	<=8
2417.35	14.9	16.4	-3.5	2	-33.5	-30	<=8
2417.40	14.2	16.4	-4.2	2	-34.2	-30	<=8
2417.45	13.9	16.4	-4.5	2	-34.5	-30	<=8
2417.50	13.9	16.4	-4.5	2	-34.5	-30	<=8
2417.55	14.4	16.4	-4.0	2	-34.0	-30	<=8
2417.60	14.1	16.4	-4.3	2	-34.3	-30	<=8
2417.65	13.7	16.4	-4.7	2	-34.7	-30	<=8
2417.70	13.8	16.4	-4.6	2	-34.6	-30	<=8
2417.75	13.8	16.4	-4.6	2	-34.6	-30	<=8
2417.80	14.1	16.4	-4.3	2	-34.3	-30	<=8
2417.85	14.5	16.4	-3.9	2	-33.9	-30	<=8
2417.90	14.4	16.4	-4.0	2	-34.0	-30	<=8
2417.95	14.3	16.4	-4.1	2	-34.1	-30	<=8
2418.00	14.1	16.4	-4.3	2	-34.3	-30	<=8
2418.05	14.4	16.4	-4.0	2	-34.0	-30	<=8
2418.10	14.5	16.4	-3.9	2	-33.9	-30	<=8
2418.15	14.5	16.4	-3.9	2	-33.9	-30	<=8
2418.20	15.0	16.4	-3.4	2	-33.4	-30	<=8
2418.25	15.5	16.4	-2.9	2	-32.9	-30	<=8
2418.30	15.1	16.4	-3.3	2	-33.3	-30	<=8
2418.35	15.0	16.4	-3.4	2	-33.4	-30	<=8
2418.40	15.1	16.4	-3.3	2	-33.3	-30	<=8
2418.45	14.8	16.4	-3.6	2	-33.6	-30	<=8
2418.50	15.4	16.4	-3.0	2	-33.0	-30	<=8
2418.55	15.4	16.4	-3.0	2	-33.0	-30	<=8

2418.60	14.9	16.4	-3.5	2	-33.5	-30	<=8
2418.65	14.5	16.4	-3.9	2	-33.9	-30	<=8
2418.70	15.3	16.4	-3.1	2	-33.1	-30	<=8
2418.75	15.6	16.4	-2.8	2	-32.8	-30	<=8
2418.80	15.3	16.4	-3.1	2	-33.1	-30	<=8
2418.85	15.4	16.4	-3.0	2	-33.0	-30	<=8
2418.90	15.2	16.4	-3.2	2	-33.2	-30	<=8
2418.95	15.2	16.4	-3.2	2	-33.2	-30	<=8
2419.00	14.7	16.4	-3.7	2	-33.7	-30	<=8
2419.05	14.4	16.4	-4.0	2	-34.0	-30	<=8
2419.10	15.2	16.4	-3.2	2	-33.2	-30	<=8
2419.15	15.5	16.4	-2.9	2	-32.9	-30	<=8
2419.20	14.6	16.4	-3.8	2	-33.8	-30	<=8
2419.25	14.4	16.4	-4.0	2	-34.0	-30	<=8
2419.30	14.7	16.4	-3.7	2	-33.7	-30	<=8
2419.35	14.7	16.4	-3.7	2	-33.7	-30	<=8
2419.40	13.9	16.4	-4.5	2	-34.5	-30	<=8
2419.45	14.7	16.4	-3.7	2	-33.7	-30	<=8
2419.50	14.6	16.4	-3.8	2	-33.8	-30	<=8
2419.55	14.2	16.4	-4.2	2	-34.2	-30	<=8
2419.60	15.0	16.4	-3.4	2	-33.4	-30	<=8
2419.65	14.7	16.4	-3.7	2	-33.7	-30	<=8
2419.70	14.3	16.4	-4.1	2	-34.1	-30	<=8
2419.75	15.3	16.4	-3.1	2	-33.1	-30	<=8
2419.80	14.7	16.4	-3.7	2	-33.7	-30	<=8
2419.85	15.1	16.4	-3.3	2	-33.3	-30	<=8
2419.90	15.6	16.4	-2.8	2	-32.8	-30	<=8
2419.95	14.3	16.4	-4.1	2	-34.1	-30	<=8
2420.00	15.6	16.4	-2.8	2	-32.8	-30	<=8
2420.05	15.2	16.4	-3.2	2	-33.2	-30	<=8
2420.10	14.7	16.4	-3.7	2	-33.7	-30	<=8
2420.15	15.3	16.4	-3.1	2	-33.1	-30	<=8
2420.20	15.5	16.4	-2.9	2	-32.9	-30	<=8
2420.25	14.8	16.4	-3.6	2	-33.6	-30	<=8

2420.30	15.8	16.4	-2.6	2	-32.6	-30	<=8
2420.35	15.3	16.4	-3.1	2	-33.1	-30	<=8
2420.40	15.6	16.4	-2.8	2	-32.8	-30	<=8
2420.45	15.5	16.4	-2.9	2	-32.9	-30	<=8
2420.50	16.0	16.4	-2.4	2	-32.4	-30	<=8

Processing Gain (dB) @20th Percentile= **11.1**



11Mbps Middle Channel Processing Gain							
Gp=(S/N)o+Mj+Lsys							
Freq. (MHz)	Gp (dB)	(S/N)o (dB)	Mj = J/S (dB)	Lsys (dB)	Jammer (dBm)	Lvl (dBm)	FER
2428.50	21.4	16.4	3.0	2	-29.2	-32.2	<=8
2428.55	21.0	16.4	2.6	2	-29.6	-32.2	<=8
2428.60	21.5	16.4	3.1	2	-29.1	-32.2	<=8
2428.65	21.0	16.4	2.6	2	-29.6	-32.2	<=8
2428.70	21.2	16.4	2.8	2	-29.4	-32.2	<=8
2428.75	21.3	16.4	2.9	2	-29.3	-32.2	<=8
2428.80	20.9	16.4	2.5	2	-29.7	-32.2	<=8
2428.85	20.6	16.4	2.2	2	-30.0	-32.2	<=8
2428.90	20.5	16.4	2.1	2	-30.1	-32.2	<=8
2428.95	20.9	16.4	2.5	2	-29.7	-32.2	<=8
2429.00	20.9	16.4	2.5	2	-29.7	-32.2	<=8
2429.05	21.1	16.4	2.7	2	-29.5	-32.2	<=8
2429.10	21.4	16.4	3.0	2	-29.2	-32.2	<=8
2429.15	21.1	16.4	2.7	2	-29.5	-32.2	<=8
2429.20	20.9	16.4	2.5	2	-29.7	-32.2	<=8
2429.25	20.9	16.4	2.5	2	-29.7	-32.2	<=8
2429.30	20.6	16.4	2.2	2	-30.0	-32.2	<=8
2429.35	20.6	16.4	2.2	2	-30.0	-32.2	<=8
2429.40	20.5	16.4	2.1	2	-30.1	-32.2	<=8
2429.45	20.3	16.4	1.9	2	-30.3	-32.2	<=8
2429.50	20.4	16.4	2.0	2	-30.2	-32.2	<=8
2429.55	20.2	16.4	1.8	2	-30.4	-32.2	<=8
2429.60	19.8	16.4	1.4	2	-30.8	-32.2	<=8
2429.65	20.0	16.4	1.6	2	-30.6	-32.2	<=8
2429.70	20.1	16.4	1.7	2	-30.5	-32.2	<=8
2429.75	20.0	16.4	1.6	2	-30.6	-32.2	<=8
2429.80	19.8	16.4	1.4	2	-30.8	-32.2	<=8
2429.85	19.7	16.4	1.3	2	-30.9	-32.2	<=8
2429.90	19.7	16.4	1.3	2	-30.9	-32.2	<=8
2429.95	19.4	16.4	1.0	2	-31.2	-32.2	<=8

2430.00	19.4	16.4	1.0	2	-31.2	-32.2	<=8
2430.05	19.2	16.4	0.8	2	-31.4	-32.2	<=8
2430.10	19.0	16.4	0.6	2	-31.6	-32.2	<=8
2430.15	18.8	16.4	0.4	2	-31.8	-32.2	<=8
2430.20	18.9	16.4	0.5	2	-31.7	-32.2	<=8
2430.25	18.5	16.4	0.1	2	-32.1	-32.2	<=8
2430.30	18.5	16.4	0.1	2	-32.1	-32.2	<=8
2430.35	18.3	16.4	-0.1	2	-32.3	-32.2	<=8
2430.40	18.1	16.4	-0.3	2	-32.5	-32.2	<=8
2430.45	17.8	16.4	-0.6	2	-32.8	-32.2	<=8
2430.50	17.8	16.4	-0.6	2	-32.8	-32.2	<=8
2430.55	17.5	16.4	-0.9	2	-33.1	-32.2	<=8
2430.60	17.4	16.4	-1.0	2	-33.2	-32.2	<=8
2430.65	16.8	16.4	-1.6	2	-33.8	-32.2	<=8
2430.70	16.7	16.4	-1.7	2	-33.9	-32.2	<=8
2430.75	16.4	16.4	-2.0	2	-34.2	-32.2	<=8
2430.80	16.5	16.4	-1.9	2	-34.1	-32.2	<=8
2430.85	16.2	16.4	-2.2	2	-34.4	-32.2	<=8
2430.90	16.0	16.4	-2.4	2	-34.6	-32.2	<=8
2430.95	16.4	16.4	-2.0	2	-34.2	-32.2	<=8
2431.00	16.3	16.4	-2.1	2	-34.3	-32.2	<=8
2431.05	16.1	16.4	-2.3	2	-34.5	-32.2	<=8
2431.10	16.0	16.4	-2.4	2	-34.6	-32.2	<=8
2431.15	15.7	16.4	-2.7	2	-34.9	-32.2	<=8
2431.20	15.6	16.4	-2.8	2	-35.0	-32.2	<=8
2431.25	15.5	16.4	-2.9	2	-35.1	-32.2	<=8
2431.30	15.5	16.4	-2.9	2	-35.1	-32.2	<=8
2431.35	15.2	16.4	-3.2	2	-35.4	-32.2	<=8
2431.40	15.3	16.4	-3.1	2	-35.3	-32.2	<=8
2431.45	15.0	16.4	-3.4	2	-35.6	-32.2	<=8
2431.50	14.9	16.4	-3.5	2	-35.7	-32.2	<=8
2431.55	14.8	16.4	-3.6	2	-35.8	-32.2	<=8
2431.60	14.9	16.4	-3.5	2	-35.7	-32.2	<=8
2431.65	14.8	16.4	-3.6	2	-35.8	-32.2	<=8

2431.70	14.8	16.4	-3.6	2	-35.8	-32.2	<=8
2431.75	14.7	16.4	-3.7	2	-35.9	-32.2	<=8
2431.80	14.6	16.4	-3.8	2	-36.0	-32.2	<=8
2431.85	14.4	16.4	-4.0	2	-36.2	-32.2	<=8
2431.90	14.2	16.4	-4.2	2	-36.4	-32.2	<=8
2431.95	13.7	16.4	-4.7	2	-36.9	-32.2	<=8
2432.00	13.4	16.4	-5.0	2	-37.2	-32.2	<=8
2432.05	13.4	16.4	-5.0	2	-37.2	-32.2	<=8
2432.10	13.5	16.4	-4.9	2	-37.1	-32.2	<=8
2432.15	13.0	16.4	-5.4	2	-37.6	-32.2	<=8
2432.20	12.9	16.4	-5.5	2	-37.7	-32.2	<=8
2432.25	13.3	16.4	-5.1	2	-37.3	-32.2	<=8
2432.30	13.1	16.4	-5.3	2	-37.5	-32.2	<=8
2432.35	13.0	16.4	-5.4	2	-37.6	-32.2	<=8
2432.40	13.1	16.4	-5.3	2	-37.5	-32.2	<=8
2432.45	13.3	16.4	-5.1	2	-37.3	-32.2	<=8
2432.50	12.9	16.4	-5.5	2	-37.7	-32.2	<=8
2432.55	13.1	16.4	-5.3	2	-37.5	-32.2	<=8
2432.60	12.9	16.4	-5.5	2	-37.7	-32.2	<=8
2432.65	12.8	16.4	-5.6	2	-37.8	-32.2	<=8
2432.70	12.7	16.4	-5.7	2	-37.9	-32.2	<=8
2432.75	12.5	16.4	-5.9	2	-38.1	-32.2	<=8
2432.80	12.5	16.4	-5.9	2	-38.1	-32.2	<=8
2432.85	12.2	16.4	-6.2	2	-38.4	-32.2	<=8
2432.90	12.1	16.4	-6.3	2	-38.5	-32.2	<=8
2432.95	12.0	16.4	-6.4	2	-38.6	-32.2	<=8
2433.00	11.6	16.4	-6.8	2	-39.0	-32.2	<=8
2433.05	12.0	16.4	-6.4	2	-38.6	-32.2	<=8
2433.10	12.1	16.4	-6.3	2	-38.5	-32.2	<=8
2433.15	11.9	16.4	-6.5	2	-38.7	-32.2	<=8
2433.20	12.0	16.4	-6.4	2	-38.6	-32.2	<=8
2433.25	11.9	16.4	-6.5	2	-38.7	-32.2	<=8
2433.30	11.7	16.4	-6.7	2	-38.9	-32.2	<=8
2433.35	11.7	16.4	-6.7	2	-38.9	-32.2	<=8

2433.40	11.8	16.4	-6.6	2	-38.8	-32.2	<=8
2433.45	11.8	16.4	-6.6	2	-38.8	-32.2	<=8
2433.50	11.6	16.4	-6.8	2	-39.0	-32.2	<=8
2433.55	11.5	16.4	-6.9	2	-39.1	-32.2	<=8
2433.60	11.5	16.4	-6.9	2	-39.1	-32.2	<=8
2433.65	11.2	16.4	-7.2	2	-39.4	-32.2	<=8
2433.70	11.3	16.4	-7.1	2	-39.3	-32.2	<=8
2433.75	11.2	16.4	-7.2	2	-39.4	-32.2	<=8
2433.80	11.3	16.4	-7.1	2	-39.3	-32.2	<=8
2433.85	11.3	16.4	-7.1	2	-39.3	-32.2	<=8
2433.90	11.1	16.4	-7.3	2	-39.5	-32.2	<=8
2433.95	11.0	16.4	-7.4	2	-39.6	-32.2	<=8
2434.00	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2434.05	11.0	16.4	-7.4	2	-39.6	-32.2	<=8
2434.10	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2434.15	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2434.20	10.2	16.4	-8.2	2	-40.4	-32.2	<=8
2434.25	10.4	16.4	-8.0	2	-40.2	-32.2	<=8
2434.30	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2434.35	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2434.40	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
2434.45	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2434.50	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2434.55	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2434.60	10.1	16.4	-8.3	2	-40.5	-32.2	<=8
2434.65	10.1	16.4	-8.3	2	-40.5	-32.2	<=8
2434.70	10.1	16.4	-8.3	2	-40.5	-32.2	<=8
2434.75	10.2	16.4	-8.2	2	-40.4	-32.2	<=8
2434.80	10.2	16.4	-8.2	2	-40.4	-32.2	<=8
2434.85	10.1	16.4	-8.3	2	-40.5	-32.2	<=8
2434.90	10.2	16.4	-8.2	2	-40.4	-32.2	<=8
2434.95	10.3	16.4	-8.1	2	-40.3	-32.2	<=8
2435.00	10.1	16.4	-8.3	2	-40.5	-32.2	<=8
2435.05	10.2	16.4	-8.2	2	-40.4	-32.2	<=8

2435.10	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2435.15	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2435.20	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
2435.25	10.4	16.4	-8.0	2	-40.2	-32.2	<=8
2435.30	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2435.35	10.4	16.4	-8.0	2	-40.2	-32.2	<=8
2435.40	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
2435.45	10.2	16.4	-8.2	2	-40.4	-32.2	<=8
2435.50	10.3	16.4	-8.1	2	-40.3	-32.2	<=8
2435.55	10.4	16.4	-8.0	2	-40.2	-32.2	<=8
2435.60	10.3	16.4	-8.1	2	-40.3	-32.2	<=8
2435.65	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2435.70	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2435.75	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2435.80	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2435.85	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2435.90	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2435.95	11.0	16.4	-7.4	2	-39.6	-32.2	<=8
2436.00	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2436.05	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
2436.10	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2436.15	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2436.20	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2436.25	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2436.30	11.0	16.4	-7.4	2	-39.6	-32.2	<=8
2436.35	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2436.40	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2436.45	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2436.50	11.0	16.4	-7.4	2	-39.6	-32.2	<=8
2436.55	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2436.60	11.1	16.4	-7.3	2	-39.5	-32.2	<=8
2436.65	10.7	16.4	-7.7	2	-39.9	-32.2	<=8
2436.70	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2436.75	10.5	16.4	-7.9	2	-40.1	-32.2	<=8

2436.80	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
2436.85	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2436.90	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2436.95	10.4	16.4	-8.0	2	-40.2	-32.2	<=8
2437.00	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
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2437.15	10.7	16.4	-7.7	2	-39.9	-32.2	<=8
2437.20	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
2437.25	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
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2437.40	11.3	16.4	-7.1	2	-39.3	-32.2	<=8
2437.45	11.2	16.4	-7.2	2	-39.4	-32.2	<=8
2437.50	11.1	16.4	-7.3	2	-39.5	-32.2	<=8
2437.55	11.1	16.4	-7.3	2	-39.5	-32.2	<=8
2437.60	11.0	16.4	-7.4	2	-39.6	-32.2	<=8
2437.65	11.0	16.4	-7.4	2	-39.6	-32.2	<=8
2437.70	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2437.75	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2437.80	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2437.85	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2437.90	10.1	16.4	-8.3	2	-40.5	-32.2	<=8
2437.95	9.8	16.4	-8.6	2	-40.8	-32.2	<=8
2438.00	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2438.05	10.7	16.4	-7.7	2	-39.9	-32.2	<=8
2438.10	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2438.15	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2438.20	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2438.25	11.0	16.4	-7.4	2	-39.6	-32.2	<=8
2438.30	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2438.35	10.7	16.4	-7.7	2	-39.9	-32.2	<=8
2438.40	10.7	16.4	-7.7	2	-39.9	-32.2	<=8
2438.45	10.8	16.4	-7.6	2	-39.8	-32.2	<=8

2438.50	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2438.55	10.7	16.4	-7.7	2	-39.9	-32.2	<=8
2438.60	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
2438.65	10.7	16.4	-7.7	2	-39.9	-32.2	<=8
2438.70	11.1	16.4	-7.3	2	-39.5	-32.2	<=8
2438.75	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2438.80	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2438.85	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
2438.90	10.2	16.4	-8.2	2	-40.4	-32.2	<=8
2438.95	10.3	16.4	-8.1	2	-40.3	-32.2	<=8
2439.00	10.3	16.4	-8.1	2	-40.3	-32.2	<=8
2439.05	10.4	16.4	-8.0	2	-40.2	-32.2	<=8
2439.10	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2439.15	10.7	16.4	-7.7	2	-39.9	-32.2	<=8
2439.20	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
2439.25	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
2439.30	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
2439.35	10.7	16.4	-7.7	2	-39.9	-32.2	<=8
2439.40	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2439.45	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
2439.50	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2439.55	10.5	16.4	-7.9	2	-40.1	-32.2	<=8
2439.60	10.7	16.4	-7.7	2	-39.9	-32.2	<=8
2439.65	10.7	16.4	-7.7	2	-39.9	-32.2	<=8
2439.70	10.6	16.4	-7.8	2	-40.0	-32.2	<=8
2439.75	10.7	16.4	-7.7	2	-39.9	-32.2	<=8
2439.80	10.7	16.4	-7.7	2	-39.9	-32.2	<=8
2439.85	10.8	16.4	-7.6	2	-39.8	-32.2	<=8
2439.90	10.9	16.4	-7.5	2	-39.7	-32.2	<=8
2439.95	11.3	16.4	-7.1	2	-39.3	-32.2	<=8
2440.00	11.4	16.4	-7.0	2	-39.2	-32.2	<=8
2440.05	11.5	16.4	-6.9	2	-39.1	-32.2	<=8
2440.10	11.6	16.4	-6.8	2	-39.0	-32.2	<=8
2440.15	11.6	16.4	-6.8	2	-39.0	-32.2	<=8

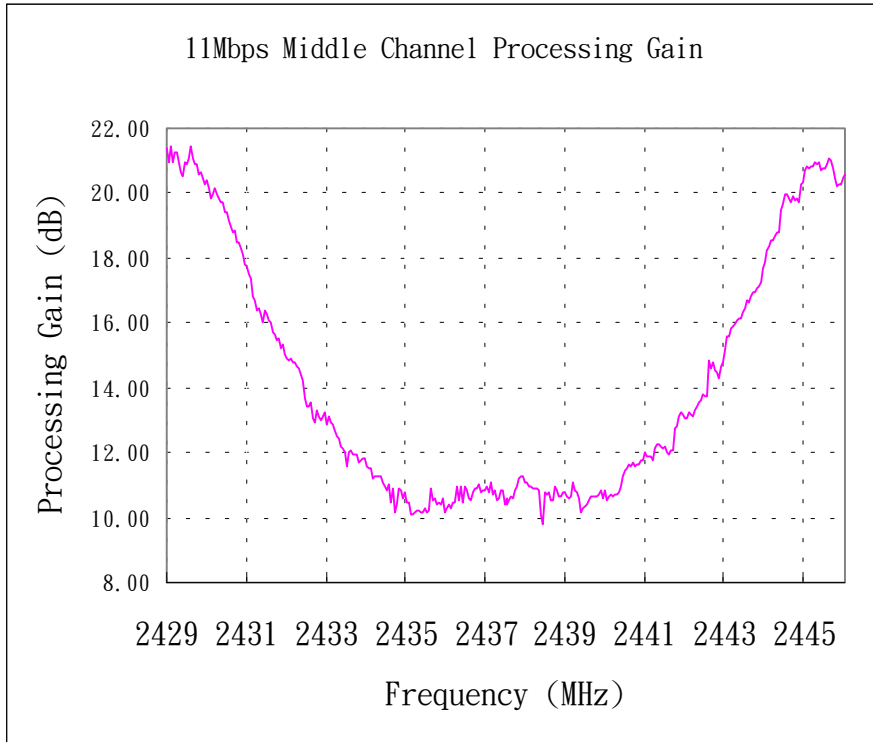
2440.20	11.7	16.4	-6.7	2	-38.9	-32.2	<=8
2440.25	11.6	16.4	-6.8	2	-39.0	-32.2	<=8
2440.30	11.7	16.4	-6.7	2	-38.9	-32.2	<=8
2440.35	11.7	16.4	-6.7	2	-38.9	-32.2	<=8
2440.40	11.7	16.4	-6.7	2	-38.9	-32.2	<=8
2440.45	11.8	16.4	-6.6	2	-38.8	-32.2	<=8
2440.50	12.0	16.4	-6.4	2	-38.6	-32.2	<=8
2440.55	11.9	16.4	-6.5	2	-38.7	-32.2	<=8
2440.60	11.9	16.4	-6.5	2	-38.7	-32.2	<=8
2440.65	11.9	16.4	-6.5	2	-38.7	-32.2	<=8
2440.70	11.7	16.4	-6.7	2	-38.9	-32.2	<=8
2440.75	12.1	16.4	-6.3	2	-38.5	-32.2	<=8
2440.80	12.2	16.4	-6.2	2	-38.4	-32.2	<=8
2440.85	12.3	16.4	-6.1	2	-38.3	-32.2	<=8
2440.90	12.2	16.4	-6.2	2	-38.4	-32.2	<=8
2440.95	12.2	16.4	-6.2	2	-38.4	-32.2	<=8
2441.00	12.2	16.4	-6.2	2	-38.4	-32.2	<=8
2441.05	12.0	16.4	-6.4	2	-38.6	-32.2	<=8
2441.10	12.0	16.4	-6.4	2	-38.6	-32.2	<=8
2441.15	12.0	16.4	-6.4	2	-38.6	-32.2	<=8
2441.20	12.0	16.4	-6.4	2	-38.6	-32.2	<=8
2441.25	12.8	16.4	-5.6	2	-37.8	-32.2	<=8
2441.30	12.8	16.4	-5.6	2	-37.8	-32.2	<=8
2441.35	13.1	16.4	-5.3	2	-37.5	-32.2	<=8
2441.40	13.2	16.4	-5.2	2	-37.4	-32.2	<=8
2441.45	13.2	16.4	-5.2	2	-37.4	-32.2	<=8
2441.50	13.1	16.4	-5.3	2	-37.5	-32.2	<=8
2441.55	13.1	16.4	-5.3	2	-37.5	-32.2	<=8
2441.60	13.3	16.4	-5.1	2	-37.3	-32.2	<=8
2441.65	13.2	16.4	-5.2	2	-37.4	-32.2	<=8
2441.70	13.1	16.4	-5.3	2	-37.5	-32.2	<=8
2441.75	13.3	16.4	-5.1	2	-37.3	-32.2	<=8
2441.80	13.4	16.4	-5.0	2	-37.2	-32.2	<=8
2441.85	13.6	16.4	-4.8	2	-37.0	-32.2	<=8

2441.90	13.6	16.4	-4.8	2	-37.0	-32.2	<=8
2441.95	13.8	16.4	-4.6	2	-36.8	-32.2	<=8
2442.00	13.7	16.4	-4.7	2	-36.9	-32.2	<=8
2442.05	13.7	16.4	-4.7	2	-36.9	-32.2	<=8
2442.10	14.9	16.4	-3.5	2	-35.7	-32.2	<=8
2442.15	14.6	16.4	-3.8	2	-36.0	-32.2	<=8
2442.20	14.8	16.4	-3.6	2	-35.8	-32.2	<=8
2442.25	14.5	16.4	-3.9	2	-36.1	-32.2	<=8
2442.30	14.4	16.4	-4.0	2	-36.2	-32.2	<=8
2442.35	14.3	16.4	-4.1	2	-36.3	-32.2	<=8
2442.40	14.7	16.4	-3.7	2	-35.9	-32.2	<=8
2442.45	14.8	16.4	-3.6	2	-35.8	-32.2	<=8
2442.50	15.2	16.4	-3.2	2	-35.4	-32.2	<=8
2442.55	15.6	16.4	-2.8	2	-35.0	-32.2	<=8
2442.60	15.6	16.4	-2.8	2	-35.0	-32.2	<=8
2442.65	15.8	16.4	-2.6	2	-34.8	-32.2	<=8
2442.70	15.9	16.4	-2.5	2	-34.7	-32.2	<=8
2442.75	15.9	16.4	-2.5	2	-34.7	-32.2	<=8
2442.80	16.1	16.4	-2.3	2	-34.5	-32.2	<=8
2442.85	16.1	16.4	-2.3	2	-34.5	-32.2	<=8
2442.90	16.1	16.4	-2.3	2	-34.5	-32.2	<=8
2442.95	16.3	16.4	-2.1	2	-34.3	-32.2	<=8
2443.00	16.5	16.4	-1.9	2	-34.1	-32.2	<=8
2443.05	16.7	16.4	-1.7	2	-33.9	-32.2	<=8
2443.10	16.6	16.4	-1.8	2	-34.0	-32.2	<=8
2443.15	16.8	16.4	-1.6	2	-33.8	-32.2	<=8
2443.20	16.9	16.4	-1.5	2	-33.7	-32.2	<=8
2443.25	17.0	16.4	-1.4	2	-33.6	-32.2	<=8
2443.30	17.1	16.4	-1.3	2	-33.5	-32.2	<=8
2443.35	17.1	16.4	-1.3	2	-33.5	-32.2	<=8
2443.40	17.2	16.4	-1.2	2	-33.4	-32.2	<=8
2443.45	17.7	16.4	-0.7	2	-32.9	-32.2	<=8
2443.50	17.9	16.4	-0.5	2	-32.7	-32.2	<=8
2443.55	18.2	16.4	-0.2	2	-32.4	-32.2	<=8

2443.60	18.4	16.4	0.0	2	-32.2	-32.2	<=8
2443.65	18.5	16.4	0.1	2	-32.1	-32.2	<=8
2443.70	18.6	16.4	0.2	2	-32.0	-32.2	<=8
2443.75	18.7	16.4	0.3	2	-31.9	-32.2	<=8
2443.80	18.8	16.4	0.4	2	-31.8	-32.2	<=8
2443.85	18.8	16.4	0.4	2	-31.8	-32.2	<=8
2443.90	19.5	16.4	1.1	2	-31.1	-32.2	<=8
2443.95	19.7	16.4	1.3	2	-30.9	-32.2	<=8
2444.00	20.0	16.4	1.6	2	-30.6	-32.2	<=8
2444.05	20.0	16.4	1.6	2	-30.6	-32.2	<=8
2444.10	19.8	16.4	1.4	2	-30.8	-32.2	<=8
2444.15	19.7	16.4	1.3	2	-30.9	-32.2	<=8
2444.20	19.9	16.4	1.5	2	-30.7	-32.2	<=8
2444.25	19.8	16.4	1.4	2	-30.8	-32.2	<=8
2444.30	19.9	16.4	1.5	2	-30.7	-32.2	<=8
2444.35	19.7	16.4	1.3	2	-30.9	-32.2	<=8
2444.40	20.3	16.4	1.9	2	-30.3	-32.2	<=8
2444.45	20.3	16.4	1.9	2	-30.3	-32.2	<=8
2444.50	20.7	16.4	2.3	2	-29.9	-32.2	<=8
2444.55	20.8	16.4	2.4	2	-29.8	-32.2	<=8
2444.60	20.8	16.4	2.4	2	-29.8	-32.2	<=8
2444.65	20.8	16.4	2.4	2	-29.8	-32.2	<=8
2444.70	20.8	16.4	2.4	2	-29.8	-32.2	<=8
2444.75	20.9	16.4	2.5	2	-29.7	-32.2	<=8
2444.80	20.9	16.4	2.5	2	-29.7	-32.2	<=8
2444.85	21.0	16.4	2.6	2	-29.6	-32.2	<=8
2444.90	20.7	16.4	2.3	2	-29.9	-32.2	<=8
2444.95	20.7	16.4	2.3	2	-29.9	-32.2	<=8
2445.00	20.8	16.4	2.4	2	-29.8	-32.2	<=8
2445.05	20.9	16.4	2.5	2	-29.7	-32.2	<=8
2445.10	21.1	16.4	2.7	2	-29.5	-32.2	<=8
2445.15	21.0	16.4	2.6	2	-29.6	-32.2	<=8
2445.20	20.8	16.4	2.4	2	-29.8	-32.2	<=8
2445.25	20.4	16.4	2.0	2	-30.2	-32.2	<=8

2445.30	20.2	16.4	1.8	2	-30.4	-32.2	<=8
2445.35	20.3	16.4	1.9	2	-30.3	-32.2	<=8
2445.40	20.3	16.4	1.9	2	-30.3	-32.2	<=8
2445.45	20.4	16.4	2.0	2	-30.2	-32.2	<=8
2445.50	20.6	16.4	2.2	2	-30.0	-32.2	<=8

Processing Gain (dB) @20th Percentile= **10.7**



11Mbps High Channel Processing Gain							
Gp=(S/N)o+Mj+Lsys							
Freq. (MHz)	Gp (dB)	(S/N)o (dB)	Mj = J/S (dB)	Lsys (dB)	Jammer (dBm)	Lvl (dBm)	FER
2453.50	22.6	16.4	4.2	2	-27.8	-32	<=8
2453.55	22.3	16.4	3.9	2	-28.1	-32	<=8
2453.60	22.2	16.4	3.8	2	-28.2	-32	<=8
2453.65	22.7	16.4	4.3	2	-27.7	-32	<=8
2453.70	22.3	16.4	3.9	2	-28.1	-32	<=8
2453.75	22.0	16.4	3.6	2	-28.4	-32	<=8
2453.80	21.5	16.4	3.1	2	-28.9	-32	<=8
2453.85	21.9	16.4	3.5	2	-28.5	-32	<=8
2453.90	22.1	16.4	3.7	2	-28.3	-32	<=8
2453.95	22.6	16.4	4.2	2	-27.8	-32	<=8
2454.00	22.8	16.4	4.4	2	-27.6	-32	<=8
2454.05	22.1	16.4	3.7	2	-28.3	-32	<=8
2454.10	22.3	16.4	3.9	2	-28.1	-32	<=8
2454.15	22.3	16.4	3.9	2	-28.1	-32	<=8
2454.20	22.7	16.4	4.3	2	-27.7	-32	<=8
2454.25	22.0	16.4	3.6	2	-28.4	-32	<=8
2454.30	21.0	16.4	2.6	2	-29.4	-32	<=8
2454.35	20.8	16.4	2.4	2	-29.6	-32	<=8
2454.40	21.3	16.4	2.9	2	-29.1	-32	<=8
2454.45	21.4	16.4	3.0	2	-29.0	-32	<=8
2454.50	21.0	16.4	2.6	2	-29.4	-32	<=8
2454.55	20.6	16.4	2.2	2	-29.8	-32	<=8
2454.60	20.0	16.4	1.6	2	-30.4	-32	<=8
2454.65	20.1	16.4	1.7	2	-30.3	-32	<=8
2454.70	20.1	16.4	1.7	2	-30.3	-32	<=8
2454.75	19.8	16.4	1.4	2	-30.6	-32	<=8
2454.80	19.6	16.4	1.2	2	-30.8	-32	<=8
2454.85	19.6	16.4	1.2	2	-30.8	-32	<=8
2454.90	20.1	16.4	1.7	2	-30.3	-32	<=8
2454.95	19.4	16.4	1.0	2	-31.0	-32	<=8

2455.00	19.9	16.4	1.5	2	-30.5	-32	<=8
2455.05	19.6	16.4	1.2	2	-30.8	-32	<=8
2455.10	19.7	16.4	1.3	2	-30.7	-32	<=8
2455.15	19.4	16.4	1.0	2	-31.0	-32	<=8
2455.20	19.1	16.4	0.7	2	-31.3	-32	<=8
2455.25	19.0	16.4	0.6	2	-31.4	-32	<=8
2455.30	19.4	16.4	1.0	2	-31.0	-32	<=8
2455.35	19.1	16.4	0.7	2	-31.3	-32	<=8
2455.40	18.3	16.4	-0.1	2	-32.1	-32	<=8
2455.45	17.6	16.4	-0.8	2	-32.8	-32	<=8
2455.50	18.4	16.4	0.0	2	-32.0	-32	<=8
2455.55	17.5	16.4	-0.9	2	-32.9	-32	<=8
2455.60	17.6	16.4	-0.8	2	-32.8	-32	<=8
2455.65	17.0	16.4	-1.4	2	-33.4	-32	<=8
2455.70	16.3	16.4	-2.1	2	-34.1	-32	<=8
2455.75	16.6	16.4	-1.8	2	-33.8	-32	<=8
2455.80	17.3	16.4	-1.1	2	-33.1	-32	<=8
2455.85	16.7	16.4	-1.7	2	-33.7	-32	<=8
2455.90	16.8	16.4	-1.6	2	-33.6	-32	<=8
2455.95	16.5	16.4	-1.9	2	-33.9	-32	<=8
2456.00	16.2	16.4	-2.2	2	-34.2	-32	<=8
2456.05	15.9	16.4	-2.5	2	-34.5	-32	<=8
2456.10	15.6	16.4	-2.8	2	-34.8	-32	<=8
2456.15	15.6	16.4	-2.8	2	-34.8	-32	<=8
2456.20	16.1	16.4	-2.3	2	-34.3	-32	<=8
2456.25	16.2	16.4	-2.2	2	-34.2	-32	<=8
2456.30	16.5	16.4	-1.9	2	-33.9	-32	<=8
2456.35	16.2	16.4	-2.2	2	-34.2	-32	<=8
2456.40	15.5	16.4	-2.9	2	-34.9	-32	<=8
2456.45	14.6	16.4	-3.8	2	-35.8	-32	<=8
2456.50	16.5	16.4	-1.9	2	-33.9	-32	<=8
2456.55	15.8	16.4	-2.6	2	-34.6	-32	<=8
2456.60	14.2	16.4	-4.2	2	-36.2	-32	<=8
2456.65	14.4	16.4	-4.0	2	-36.0	-32	<=8

2456.70	14.6	16.4	-3.8	2	-35.8	-32	<=8
2456.75	14.9	16.4	-3.5	2	-35.5	-32	<=8
2456.80	14.4	16.4	-4.0	2	-36.0	-32	<=8
2456.85	14.8	16.4	-3.6	2	-35.6	-32	<=8
2456.90	14.2	16.4	-4.2	2	-36.2	-32	<=8
2456.95	14.8	16.4	-3.6	2	-35.6	-32	<=8
2457.00	14.2	16.4	-4.2	2	-36.2	-32	<=8
2457.05	13.7	16.4	-4.7	2	-36.7	-32	<=8
2457.10	14.7	16.4	-3.7	2	-35.7	-32	<=8
2457.15	13.5	16.4	-4.9	2	-36.9	-32	<=8
2457.20	13.5	16.4	-4.9	2	-36.9	-32	<=8
2457.25	14.3	16.4	-4.1	2	-36.1	-32	<=8
2457.30	14.9	16.4	-3.5	2	-35.5	-32	<=8
2457.35	13.7	16.4	-4.7	2	-36.7	-32	<=8
2457.40	13.9	16.4	-4.5	2	-36.5	-32	<=8
2457.45	13.1	16.4	-5.3	2	-37.3	-32	<=8
2457.50	13.7	16.4	-4.7	2	-36.7	-32	<=8
2457.55	13.3	16.4	-5.1	2	-37.1	-32	<=8
2457.60	13.8	16.4	-4.6	2	-36.6	-32	<=8
2457.65	13.3	16.4	-5.1	2	-37.1	-32	<=8
2457.70	13.2	16.4	-5.2	2	-37.2	-32	<=8
2457.75	12.1	16.4	-6.3	2	-38.3	-32	<=8
2457.80	12.6	16.4	-5.8	2	-37.8	-32	<=8
2457.85	12.6	16.4	-5.8	2	-37.8	-32	<=8
2457.90	12.3	16.4	-6.1	2	-38.1	-32	<=8
2457.95	12.4	16.4	-6.0	2	-38.0	-32	<=8
2458.00	12.1	16.4	-6.3	2	-38.3	-32	<=8
2458.05	12.7	16.4	-5.7	2	-37.7	-32	<=8
2458.10	12.8	16.4	-5.6	2	-37.6	-32	<=8
2458.15	12.8	16.4	-5.6	2	-37.6	-32	<=8
2458.20	12.6	16.4	-5.8	2	-37.8	-32	<=8
2458.25	12.9	16.4	-5.5	2	-37.5	-32	<=8
2458.30	12.9	16.4	-5.5	2	-37.5	-32	<=8
2458.35	12.2	16.4	-6.2	2	-38.2	-32	<=8

2458.40	12.6	16.4	-5.8	2	-37.8	-32	<=8
2458.45	11.8	16.4	-6.6	2	-38.6	-32	<=8
2458.50	12.3	16.4	-6.1	2	-38.1	-32	<=8
2458.55	11.5	16.4	-6.9	2	-38.9	-32	<=8
2458.60	12.2	16.4	-6.2	2	-38.2	-32	<=8
2458.65	12.0	16.4	-6.4	2	-38.4	-32	<=8
2458.70	11.8	16.4	-6.6	2	-38.6	-32	<=8
2458.75	11.4	16.4	-7.0	2	-39.0	-32	<=8
2458.80	11.3	16.4	-7.1	2	-39.1	-32	<=8
2458.85	12.0	16.4	-6.4	2	-38.4	-32	<=8
2458.90	10.9	16.4	-7.5	2	-39.5	-32	<=8
2458.95	10.9	16.4	-7.5	2	-39.5	-32	<=8
2459.00	11.2	16.4	-7.2	2	-39.2	-32	<=8
2459.05	11.4	16.4	-7.0	2	-39.0	-32	<=8
2459.10	11.2	16.4	-7.2	2	-39.2	-32	<=8
2459.15	10.7	16.4	-7.7	2	-39.7	-32	<=8
2459.20	11.4	16.4	-7.0	2	-39.0	-32	<=8
2459.25	10.7	16.4	-7.7	2	-39.7	-32	<=8
2459.30	11.1	16.4	-7.3	2	-39.3	-32	<=8
2459.35	11.1	16.4	-7.3	2	-39.3	-32	<=8
2459.40	10.8	16.4	-7.6	2	-39.6	-32	<=8
2459.45	11.4	16.4	-7.0	2	-39.0	-32	<=8
2459.50	10.7	16.4	-7.7	2	-39.7	-32	<=8
2459.55	10.8	16.4	-7.6	2	-39.6	-32	<=8
2459.60	11.4	16.4	-7.0	2	-39.0	-32	<=8
2459.65	10.7	16.4	-7.7	2	-39.7	-32	<=8
2459.70	11.3	16.4	-7.1	2	-39.1	-32	<=8
2459.75	11.3	16.4	-7.1	2	-39.1	-32	<=8
2459.80	11.1	16.4	-7.3	2	-39.3	-32	<=8
2459.85	11.2	16.4	-7.2	2	-39.2	-32	<=8
2459.90	10.7	16.4	-7.7	2	-39.7	-32	<=8
2459.95	10.9	16.4	-7.5	2	-39.5	-32	<=8
2460.00	10.7	16.4	-7.7	2	-39.7	-32	<=8
2460.05	11.3	16.4	-7.1	2	-39.1	-32	<=8

2460.10	10.4	16.4	-8.0	2	-40.0	-32	<=8
2460.15	11.0	16.4	-7.4	2	-39.4	-32	<=8
2460.20	10.7	16.4	-7.7	2	-39.7	-32	<=8
2460.25	11.5	16.4	-6.9	2	-38.9	-32	<=8
2460.30	11.5	16.4	-6.9	2	-38.9	-32	<=8
2460.35	11.3	16.4	-7.1	2	-39.1	-32	<=8
2460.40	10.8	16.4	-7.6	2	-39.6	-32	<=8
2460.45	11.3	16.4	-7.1	2	-39.1	-32	<=8
2460.50	11.3	16.4	-7.1	2	-39.1	-32	<=8
2460.55	11.3	16.4	-7.1	2	-39.1	-32	<=8
2460.60	10.5	16.4	-7.9	2	-39.9	-32	<=8
2460.65	10.8	16.4	-7.6	2	-39.6	-32	<=8
2460.70	11.3	16.4	-7.1	2	-39.1	-32	<=8
2460.75	11.5	16.4	-6.9	2	-38.9	-32	<=8
2460.80	11.5	16.4	-6.9	2	-38.9	-32	<=8
2460.85	11.2	16.4	-7.2	2	-39.2	-32	<=8
2460.90	11.4	16.4	-7.0	2	-39.0	-32	<=8
2460.95	10.9	16.4	-7.5	2	-39.5	-32	<=8
2461.00	11.9	16.4	-6.5	2	-38.5	-32	<=8
2461.05	11.4	16.4	-7.0	2	-39.0	-32	<=8
2461.10	11.6	16.4	-6.8	2	-38.8	-32	<=8
2461.15	11.1	16.4	-7.3	2	-39.3	-32	<=8
2461.20	11.4	16.4	-7.0	2	-39.0	-32	<=8
2461.25	11.7	16.4	-6.7	2	-38.7	-32	<=8
2461.30	11.5	16.4	-6.9	2	-38.9	-32	<=8
2461.35	11.2	16.4	-7.2	2	-39.2	-32	<=8
2461.40	11.3	16.4	-7.1	2	-39.1	-32	<=8
2461.45	11.4	16.4	-7.0	2	-39.0	-32	<=8
2461.50	11.9	16.4	-6.5	2	-38.5	-32	<=8
2461.55	11.8	16.4	-6.6	2	-38.6	-32	<=8
2461.60	12.2	16.4	-6.2	2	-38.2	-32	<=8
2461.65	12.0	16.4	-6.4	2	-38.4	-32	<=8
2461.70	12.3	16.4	-6.1	2	-38.1	-32	<=8
2461.75	12.1	16.4	-6.3	2	-38.3	-32	<=8

2461.80	11.3	16.4	-7.1	2	-39.1	-32	<=8
2461.85	11.0	16.4	-7.4	2	-39.4	-32	<=8
2461.90	10.7	16.4	-7.7	2	-39.7	-32	<=8
2461.95	11.8	16.4	-6.6	2	-38.6	-32	<=8
2462.00	10.8	16.4	-7.6	2	-39.6	-32	<=8
2462.05	11.4	16.4	-7.0	2	-39.0	-32	<=8
2462.10	10.6	16.4	-7.8	2	-39.8	-32	<=8
2462.15	11.3	16.4	-7.1	2	-39.1	-32	<=8
2462.20	11.8	16.4	-6.6	2	-38.6	-32	<=8
2462.25	11.3	16.4	-7.1	2	-39.1	-32	<=8
2462.30	11.9	16.4	-6.5	2	-38.5	-32	<=8
2462.35	11.7	16.4	-6.7	2	-38.7	-32	<=8
2462.40	11.6	16.4	-6.8	2	-38.8	-32	<=8
2462.45	11.8	16.4	-6.6	2	-38.6	-32	<=8
2462.50	11.7	16.4	-6.7	2	-38.7	-32	<=8
2462.55	11.7	16.4	-6.7	2	-38.7	-32	<=8
2462.60	12.1	16.4	-6.3	2	-38.3	-32	<=8
2462.65	11.3	16.4	-7.1	2	-39.1	-32	<=8
2462.70	11.9	16.4	-6.5	2	-38.5	-32	<=8
2462.75	11.1	16.4	-7.3	2	-39.3	-32	<=8
2462.80	11.6	16.4	-6.8	2	-38.8	-32	<=8
2462.85	12.0	16.4	-6.4	2	-38.4	-32	<=8
2462.90	11.4	16.4	-7.0	2	-39.0	-32	<=8
2462.95	11.5	16.4	-6.9	2	-38.9	-32	<=8
2463.00	12.0	16.4	-6.4	2	-38.4	-32	<=8
2463.05	11.9	16.4	-6.5	2	-38.5	-32	<=8
2463.10	11.7	16.4	-6.7	2	-38.7	-32	<=8
2463.15	11.7	16.4	-6.7	2	-38.7	-32	<=8
2463.20	11.1	16.4	-7.3	2	-39.3	-32	<=8
2463.25	11.9	16.4	-6.5	2	-38.5	-32	<=8
2463.30	11.3	16.4	-7.1	2	-39.1	-32	<=8
2463.35	11.7	16.4	-6.7	2	-38.7	-32	<=8
2463.40	11.0	16.4	-7.4	2	-39.4	-32	<=8
2463.45	11.3	16.4	-7.1	2	-39.1	-32	<=8

2463.50	11.2	16.4	-7.2	2	-39.2	-32	<=8
2463.55	11.5	16.4	-6.9	2	-38.9	-32	<=8
2463.60	11.8	16.4	-6.6	2	-38.6	-32	<=8
2463.65	11.3	16.4	-7.1	2	-39.1	-32	<=8
2463.70	11.6	16.4	-6.8	2	-38.8	-32	<=8
2463.75	11.3	16.4	-7.1	2	-39.1	-32	<=8
2463.80	11.7	16.4	-6.7	2	-38.7	-32	<=8
2463.85	11.3	16.4	-7.1	2	-39.1	-32	<=8
2463.90	10.9	16.4	-7.5	2	-39.5	-32	<=8
2463.95	11.1	16.4	-7.3	2	-39.3	-32	<=8
2464.00	10.7	16.4	-7.7	2	-39.7	-32	<=8
2464.05	10.7	16.4	-7.7	2	-39.7	-32	<=8
2464.10	10.9	16.4	-7.5	2	-39.5	-32	<=8
2464.15	11.3	16.4	-7.1	2	-39.1	-32	<=8
2464.20	10.8	16.4	-7.6	2	-39.6	-32	<=8
2464.25	11.0	16.4	-7.4	2	-39.4	-32	<=8
2464.30	10.9	16.4	-7.5	2	-39.5	-32	<=8
2464.35	10.9	16.4	-7.5	2	-39.5	-32	<=8
2464.40	12.0	16.4	-6.4	2	-38.4	-32	<=8
2464.45	11.1	16.4	-7.3	2	-39.3	-32	<=8
2464.50	11.5	16.4	-6.9	2	-38.9	-32	<=8
2464.55	11.3	16.4	-7.1	2	-39.1	-32	<=8
2464.60	11.6	16.4	-6.8	2	-38.8	-32	<=8
2464.65	11.1	16.4	-7.3	2	-39.3	-32	<=8
2464.70	11.4	16.4	-7.0	2	-39.0	-32	<=8
2464.75	12.0	16.4	-6.4	2	-38.4	-32	<=8
2464.80	11.5	16.4	-6.9	2	-38.9	-32	<=8
2464.85	11.6	16.4	-6.8	2	-38.8	-32	<=8
2464.90	12.0	16.4	-6.4	2	-38.4	-32	<=8
2464.95	12.1	16.4	-6.3	2	-38.3	-32	<=8
2465.00	11.6	16.4	-6.8	2	-38.8	-32	<=8
2465.05	11.7	16.4	-6.7	2	-38.7	-32	<=8
2465.10	12.1	16.4	-6.3	2	-38.3	-32	<=8
2465.15	12.2	16.4	-6.2	2	-38.2	-32	<=8

2465.20	11.9	16.4	-6.5	2	-38.5	-32	<=8
2465.25	11.6	16.4	-6.8	2	-38.8	-32	<=8
2465.30	12.1	16.4	-6.3	2	-38.3	-32	<=8
2465.35	12.8	16.4	-5.6	2	-37.6	-32	<=8
2465.40	12.6	16.4	-5.8	2	-37.8	-32	<=8
2465.45	12.6	16.4	-5.8	2	-37.8	-32	<=8
2465.50	12.4	16.4	-6.0	2	-38.0	-32	<=8
2465.55	13.1	16.4	-5.3	2	-37.3	-32	<=8
2465.60	12.6	16.4	-5.8	2	-37.8	-32	<=8
2465.65	12.8	16.4	-5.6	2	-37.6	-32	<=8
2465.70	12.3	16.4	-6.1	2	-38.1	-32	<=8
2465.75	13.2	16.4	-5.2	2	-37.2	-32	<=8
2465.80	13.2	16.4	-5.2	2	-37.2	-32	<=8
2465.85	13.3	16.4	-5.1	2	-37.1	-32	<=8
2465.90	13.1	16.4	-5.3	2	-37.3	-32	<=8
2465.95	12.6	16.4	-5.8	2	-37.8	-32	<=8
2466.00	12.8	16.4	-5.6	2	-37.6	-32	<=8
2466.05	12.5	16.4	-5.9	2	-37.9	-32	<=8
2466.10	12.8	16.4	-5.6	2	-37.6	-32	<=8
2466.15	13.2	16.4	-5.2	2	-37.2	-32	<=8
2466.20	13.1	16.4	-5.3	2	-37.3	-32	<=8
2466.25	13.6	16.4	-4.8	2	-36.8	-32	<=8
2466.30	13.1	16.4	-5.3	2	-37.3	-32	<=8
2466.35	13.4	16.4	-5.0	2	-37.0	-32	<=8
2466.40	13.7	16.4	-4.7	2	-36.7	-32	<=8
2466.45	13.9	16.4	-4.5	2	-36.5	-32	<=8
2466.50	14.0	16.4	-4.4	2	-36.4	-32	<=8
2466.55	13.3	16.4	-5.1	2	-37.1	-32	<=8
2466.60	13.7	16.4	-4.7	2	-36.7	-32	<=8
2466.65	14.2	16.4	-4.2	2	-36.2	-32	<=8
2466.70	14.1	16.4	-4.3	2	-36.3	-32	<=8
2466.75	14.2	16.4	-4.2	2	-36.2	-32	<=8
2466.80	14.0	16.4	-4.4	2	-36.4	-32	<=8
2466.85	14.0	16.4	-4.4	2	-36.4	-32	<=8

2466.90	13.9	16.4	-4.5	2	-36.5	-32	<=8
2466.95	14.7	16.4	-3.7	2	-35.7	-32	<=8
2467.00	15.1	16.4	-3.3	2	-35.3	-32	<=8
2467.05	15.4	16.4	-3.0	2	-35.0	-32	<=8
2467.10	15.1	16.4	-3.3	2	-35.3	-32	<=8
2467.15	15.8	16.4	-2.6	2	-34.6	-32	<=8
2467.20	15.5	16.4	-2.9	2	-34.9	-32	<=8
2467.25	15.2	16.4	-3.2	2	-35.2	-32	<=8
2467.30	15.3	16.4	-3.1	2	-35.1	-32	<=8
2467.35	15.7	16.4	-2.7	2	-34.7	-32	<=8
2467.40	15.9	16.4	-2.5	2	-34.5	-32	<=8
2467.45	16.7	16.4	-1.7	2	-33.7	-32	<=8
2467.50	17.0	16.4	-1.4	2	-33.4	-32	<=8
2467.55	15.8	16.4	-2.6	2	-34.6	-32	<=8
2467.60	16.9	16.4	-1.5	2	-33.5	-32	<=8
2467.65	16.6	16.4	-1.8	2	-33.8	-32	<=8
2467.70	16.9	16.4	-1.5	2	-33.5	-32	<=8
2467.75	17.4	16.4	-1.0	2	-33.0	-32	<=8
2467.80	16.8	16.4	-1.6	2	-33.6	-32	<=8
2467.85	17.7	16.4	-0.7	2	-32.7	-32	<=8
2467.90	17.1	16.4	-1.3	2	-33.3	-32	<=8
2467.95	17.7	16.4	-0.7	2	-32.7	-32	<=8
2468.00	16.7	16.4	-1.7	2	-33.7	-32	<=8
2468.05	17.9	16.4	-0.5	2	-32.5	-32	<=8
2468.10	17.4	16.4	-1.0	2	-33.0	-32	<=8
2468.15	18.2	16.4	-0.2	2	-32.2	-32	<=8
2468.20	17.5	16.4	-0.9	2	-32.9	-32	<=8
2468.25	17.8	16.4	-0.6	2	-32.6	-32	<=8
2468.30	18.0	16.4	-0.4	2	-32.4	-32	<=8
2468.35	17.7	16.4	-0.7	2	-32.7	-32	<=8
2468.40	18.0	16.4	-0.4	2	-32.4	-32	<=8
2468.45	17.9	16.4	-0.5	2	-32.5	-32	<=8
2468.50	18.1	16.4	-0.3	2	-32.3	-32	<=8
2468.55	18.0	16.4	-0.4	2	-32.4	-32	<=8

2468.60	18.6	16.4	0.2	2	-31.8	-32	<=8
2468.65	18.9	16.4	0.5	2	-31.5	-32	<=8
2468.70	18.4	16.4	0.0	2	-32.0	-32	<=8
2468.75	18.7	16.4	0.3	2	-31.7	-32	<=8
2468.80	18.5	16.4	0.1	2	-31.9	-32	<=8
2468.85	19.4	16.4	1.0	2	-31.0	-32	<=8
2468.90	19.2	16.4	0.8	2	-31.2	-32	<=8
2468.95	20.4	16.4	2.0	2	-30.0	-32	<=8
2469.00	20.1	16.4	1.7	2	-30.3	-32	<=8
2469.05	19.1	16.4	0.7	2	-31.3	-32	<=8
2469.10	20.4	16.4	2.0	2	-30.0	-32	<=8
2469.15	21.0	16.4	2.6	2	-29.4	-32	<=8
2469.20	20.6	16.4	2.2	2	-29.8	-32	<=8
2469.25	20.4	16.4	2.0	2	-30.0	-32	<=8
2469.30	21.2	16.4	2.8	2	-29.2	-32	<=8
2469.35	21.4	16.4	3.0	2	-29.0	-32	<=8
2469.40	21.4	16.4	3.0	2	-29.0	-32	<=8
2469.45	21.1	16.4	2.7	2	-29.3	-32	<=8
2469.50	21.6	16.4	3.2	2	-28.8	-32	<=8
2469.55	21.1	16.4	2.7	2	-29.3	-32	<=8
2469.60	21.9	16.4	3.5	2	-28.5	-32	<=8
2469.65	21.9	16.4	3.5	2	-28.5	-32	<=8
2469.70	21.7	16.4	3.3	2	-28.7	-32	<=8
2469.75	22.1	16.4	3.7	2	-28.3	-32	<=8
2469.80	21.6	16.4	3.2	2	-28.8	-32	<=8
2469.85	21.3	16.4	2.9	2	-29.1	-32	<=8
2469.90	21.5	16.4	3.1	2	-28.9	-32	<=8
2469.95	21.3	16.4	2.9	2	-29.1	-32	<=8
2470.00	21.6	16.4	3.2	2	-28.8	-32	<=8
2470.05	21.5	16.4	3.1	2	-28.9	-32	<=8
2470.10	21.6	16.4	3.2	2	-28.8	-32	<=8
2470.15	21.7	16.4	3.3	2	-28.7	-32	<=8
2470.20	22.0	16.4	3.6	2	-28.4	-32	<=8
2470.25	21.3	16.4	2.9	2	-29.1	-32	<=8

2470.30	21.2	16.4	2.8	2	-29.2	-32	<=8
2470.35	42.2	16.4	23.8	2	-8.2	-32	<=8
2470.40	22.1	16.4	3.7	2	-28.3	-32	<=8
2470.45	21.9	16.4	3.5	2	-28.5	-32	<=8
2470.50	21.6	16.4	3.2	2	-28.8	-32	<=8

Processing Gain (dB) @20th Percentile= **11.4**

