

ANNEX 1 PROCESSING GAIN OF DIRECT SEQUENCE SPREAD SPECTRUM MEASUREMENT

1. LIMITS OF PROCESSING GAIN OF A DIRECT SEQUENCE SPREAD SPECTRUM MEASUREMENT

The limit of processing gain is 10dB

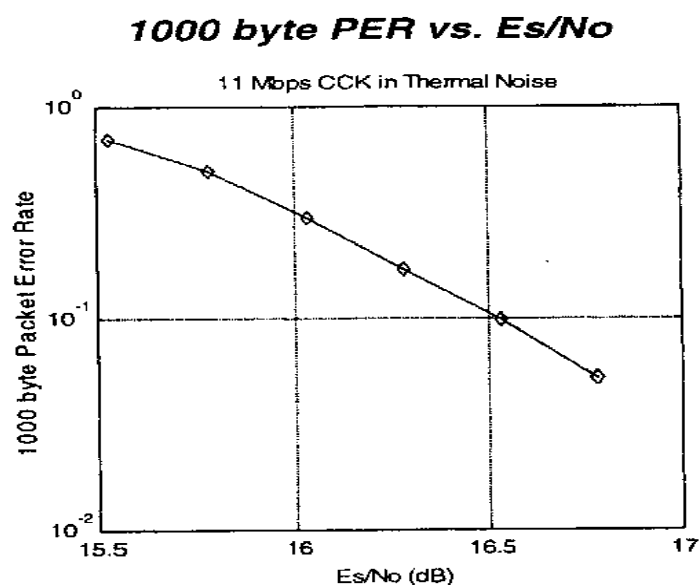
1.1 TEST INSTRUMENTS & SUPPORT UNIT

Description & Manufacturer	Model No.	Serial No.
Anritsu Spectrum Analyzer, 9kHz to 30GHz	MS2667C	M10281
Anritsu Signal Generator, 10kHz to 20GHz	68247B	984703
Hewlett Packard Power Meter,	HP438A	2743A04416
Hewlett Packard Power Sensor, -30 to 20dBm	8485A	2942A08387
Hewlett Packard Step Attenuator, 10dB steps	HP8496B	3247A18505
Mini-Circuits Power Splitter	ZN2PD-9G	NA
DELL Laptop Computer	Inspiron 5000e	NA
Campaq Laptop Computer	PPX	99125

1.2 METHOD OF MEASUREMENT

The processing gain may be measured using the CW jamming margin method. Section 4.7.4 shows the test configuration. The test consists of stepping a signal generator in 50 kHz increments across the passband of the system. At each point, the generator level required to produce the recommended Bit Error Rate (BER) is recorded. This level is jammer level. The output power of the transmitting unit is measured at the same point. The jammer to Signal (J/S) ratio is then calculated. Discard the worst 20% of the J/S data points. The lowest remaining J/S ratio is used when calculating the Process Gain.

The reference PER is specified as 8%. The corresponding Es/No (signal to noise ratio per symbol) is 16.4 dB. The curve is attached as below.



This value and the measured J/S ratio are used in the following equation to calculate the Process Gain (G_p) of the system.

$$G_p = (S/N)_o + M_j + L_{sys}$$

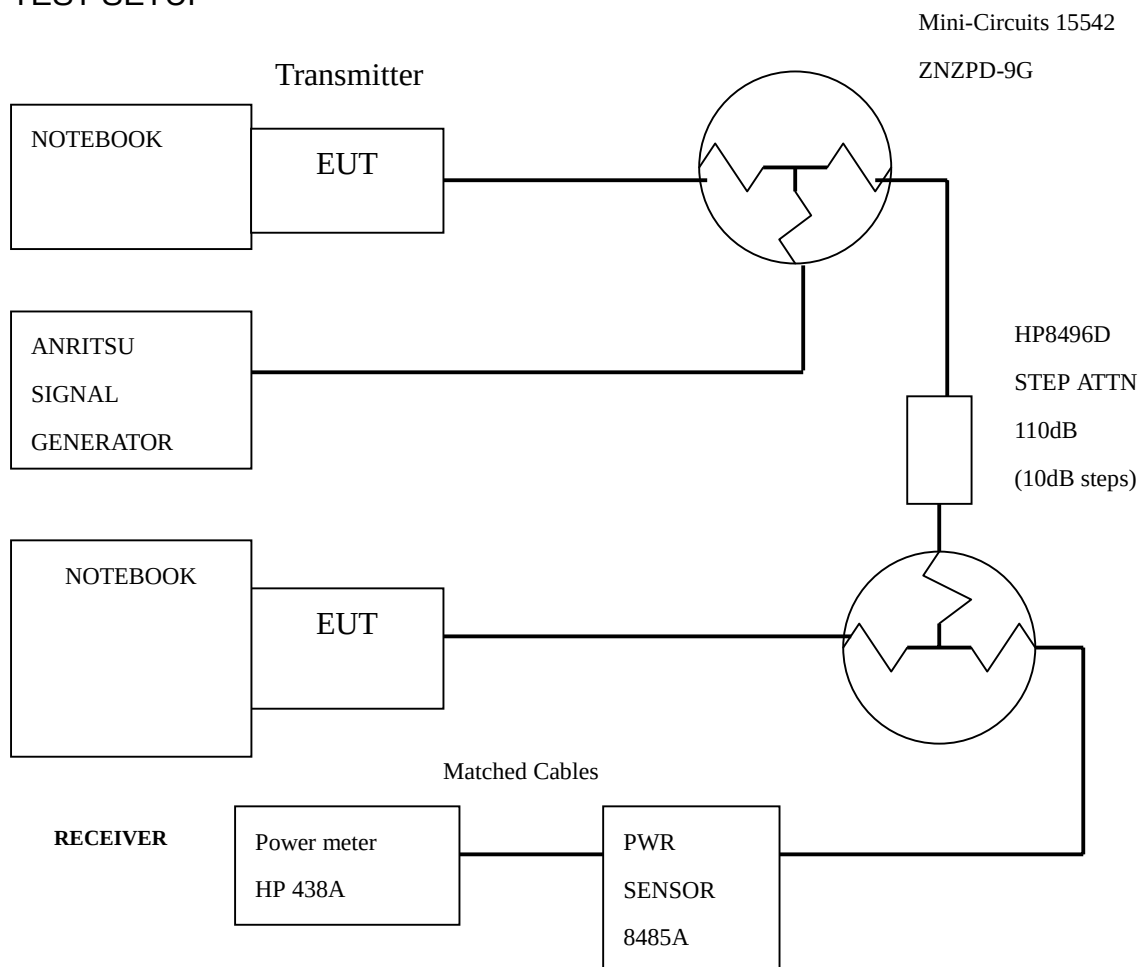
Where:

$(S/N)_o$: Signal to noise ratio for the chosen BER.

Mj : Maximum jammer to Signal Ratio recorded at the detected BER.

Lsys : System losses . For the purpose of this processing gain calculation, we assume Lsys at its minimum value of 2 dB.

TEST SETUP



1.3 TEST PROCEDURES

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

Signal Power at receiver approximately -55dBm (above thermal sensitivity such that thermal noise does not cause bit errors).

Signal Power at power meter between -20 and -30dBm for optimal linearity.

Use spectrum analyzer to monitor test.

Ensure that CW Jammer generator RF output is disabled and measure the power at the power meter port using the power meter. This is the relative signal power, S_r .

Disable Transmitter, and set CW Jammer generator RF 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 (minimum J/S, or 10dB processing gain reference level). Note the power level setting on the generator, this is the reference CW Jammer power setting, J_r .

Disable CW Jammer, re-establish link. PER test should be operating essentially error -free.

Enable CW Jammer at the reference power level and verify that the PER test indicates a PER of less than 8%.

Alternatively, adjust the CW Jammer level to that which causes 8% PER and verify that the S/J is less than 8.4dB .

Repeat step 7 for uniform steps in frequency increments of 50 kHz across the receiver passband with the CW Jammer. In this case the receiver passband is $\pm 8.5\text{ MHz}$.

The numerical data associated with the following radio channel is tabulated and presented for Channel 1, 6, and 11.

Note: Since the jamming signal will be blocked by the IF filter if the jamming frequency is far from the center of the carrier frequency. So, only those frequencies around carrier frequency are shown here.

1.4 EUT OPERATING CONDITION

The software provided by client to set the EUT to transmit at lowest, middle and highest channel.

1.5 TEST RESULTS

EUT	802.11b USB Model	Model	WarpLink 2413
Environmental Conditions	20°C, 65%RH	Tested By	Steven Lu

Although the theoretical processing gain is lower than 10 dB, but the CCK coding provides an extra coding gain of 2.2dB.

11Mbps CHANNEL 1 Processing Gain				
Frequency	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.40800	13.04	16.4	-4.36	1
2.40805	13.83	16.4	-3.57	1
2.40810	13.20	16.4	-4.20	1
2.40815	13.23	16.4	-4.17	1
2.40820	13.84	16.4	-3.56	1
2.40825	13.22	16.4	-4.18	1
2.40830	13.32	16.4	-4.08	1
2.40835	13.83	16.4	-3.57	1
2.40840	14.00	16.4	-3.40	1
2.40845	14.15	16.4	-3.25	1
2.40850	14.05	16.4	-3.35	1
2.40855	13.37	16.4	-4.03	1
2.40860	13.26	16.4	-4.14	1
2.40865	12.95	16.4	-4.45	1
2.40870	13.22	16.4	-4.18	1
2.40875	12.16	16.4	-5.24	1
2.40880	12.63	16.4	-4.77	1
2.40885	11.86	16.4	-5.54	1
2.40890	13.33	16.4	-4.07	1
2.40895	13.11	16.4	-4.29	1
2.40900	13.61	16.4	-3.79	1
2.40950	12.91	16.4	-4.49	1

11Mbps CHANNEL 1 Processing Gain				
Frequency	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.40955	12.38	16.4	-5.02	1
2.40960	12.75	16.4	-4.65	1
2.40965	13.37	16.4	-4.03	1
2.40970	11.03	16.4	-6.37	1
2.40975	11.15	16.4	-6.25	1
2.40980	13.63	16.4	-3.77	1
2.40985	13.18	16.4	-4.22	1
2.40990	14.04	16.4	-3.36	1
2.40995	13.61	16.4	-3.79	1
2.41000	13.16	16.4	-4.24	1
2.41005	12.77	16.4	-4.63	1
2.41010	13.15	16.4	-4.25	1
2.41015	12.82	16.4	-4.58	1
2.41020	13.06	16.4	-4.34	1
2.41025	12.30	16.4	-5.10	1
2.41030	12.67	16.4	-4.73	1
2.41035	12.38	16.4	-5.02	1
2.41040	12.45	16.4	-4.95	1
2.41045	12.38	16.4	-5.02	1
2.41050	12.03	16.4	-5.37	1
2.41055	12.91	16.4	-4.49	1
2.41060	12.75	16.4	-4.65	1
2.41065	12.92	16.4	-4.48	1
2.41070	13.25	16.4	-4.15	1
2.41075	13.00	16.4	-4.40	1
2.41080	13.01	16.4	-4.39	1
2.41085	12.94	16.4	-4.46	1
2.41090	13.41	16.4	-3.99	1
2.41095	13.01	16.4	-4.39	1
2.41100	12.99	16.4	-4.41	1
2.41105	13.15	16.4	-4.25	1
2.41110	12.95	16.4	-4.45	1
2.41115	12.33	16.4	-5.07	1
2.41120	11.98	16.4	-5.42	1

11Mbps CHANNEL 1 Processing Gain				
Frequency	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.41125	12.05	16.4	-5.35	1
2.41130	11.97	16.4	-5.43	1
2.41135	11.62	16.4	-5.78	1
2.41140	13.37	16.4	-4.03	1
2.41145	13.42	16.4	-3.98	1
2.41150	13.58	16.4	-3.82	1
2.41155	13.57	16.4	-3.83	1
2.41160	13.78	16.4	-3.62	1
2.41165	13.25	16.4	-4.15	1
2.41170	13.70	16.4	-3.70	1
2.41175	13.58	16.4	-3.82	1
2.41180	12.92	16.4	-4.48	1
2.41185	12.46	16.4	-4.94	1
2.41190	11.85	16.4	-5.55	1
2.41195	12.00	16.4	-5.40	1
2.41200	11.95	16.4	-5.45	1
2.41205	11.82	16.4	-5.58	1
2.41210	12.38	16.4	-5.02	1
2.41215	12.97	16.4	-4.43	1
2.41220	13.05	16.4	-4.35	1
2.41225	13.28	16.4	-4.12	1
2.41230	13.65	16.4	-3.75	1
2.41235	13.99	16.4	-3.41	1
2.41240	13.87	16.4	-3.53	1
2.41245	12.00	16.4	-5.40	1
2.41250	12.98	16.4	-4.42	1
2.41255	13.65	16.4	-3.75	1
2.41260	12.88	16.4	-4.52	1
2.41265	12.65	16.4	-4.75	1
2.41270	12.85	16.4	-4.55	1
2.41275	12.34	16.4	-5.06	1
2.41280	12.58	16.4	-4.82	1
2.41285	12.80	16.4	-4.60	1
2.41290	12.77	16.4	-4.63	1
2.41295	12.78	16.4	-4.62	1
2.41300	11.74	16.4	-5.66	1

11Mbps CHANNEL 1 Processing Gain				
Frequency	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.41305	13.00	16.4	-4.40	1
2.41310	13.58	16.4	-3.82	1
2.41315	13.65	16.4	-3.75	1
2.41320	13.48	16.4	-3.92	1
2.41325	13.45	16.4	-3.95	1
2.41330	13.15	16.4	-4.25	1
2.41335	12.78	16.4	-4.62	1
2.41340	12.30	16.4	-5.10	1
2.41345	12.33	16.4	-5.07	1
2.41350	12.58	16.4	-4.82	1
2.41355	12.18	16.4	-5.22	1
2.41360	12.17	16.4	-5.23	1
2.41365	12.03	16.4	-5.37	1
2.41370	12.65	16.4	-4.75	1
2.41375	13.09	16.4	-4.31	1
2.41380	12.97	16.4	-4.43	1
2.41385	13.05	16.4	-4.35	1
2.41390	13.07	16.4	-4.33	1
2.41395	14.58	16.4	-2.82	1
2.41400	13.54	16.4	-3.86	1
2.41405	14.08	16.4	-3.32	1
2.41410	13.36	16.4	-4.04	1
2.41415	12.68	16.4	-4.72	1
2.41420	12.21	16.4	-5.19	1
2.41425	12.58	16.4	-4.82	1
2.41430	12.35	16.4	-5.05	1
2.41435	12.15	16.4	-5.25	1
2.41440	11.95	16.4	-5.45	1
2.41445	11.95	16.4	-5.45	1
2.41450	12.08	16.4	-5.32	1
2.41455	13.38	16.4	-4.02	1
2.41460	13.15	16.4	-4.25	1
2.41465	13.75	16.4	-3.65	1
2.41470	13.78	16.4	-3.62	1
2.41475	13.58	16.4	-3.82	1
2.41480	12.75	16.4	-4.65	1

11Mbps CHANNEL 1 Processing Gain				
Frequency	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.41485	13.25	16.4	-4.15	1
2.41490	12.68	16.4	-4.72	1
2.41495	12.95	16.4	-4.45	1
2.41500	13.47	16.4	-3.93	1
2.41505	12.87	16.4	-4.53	1
2.41510	13.16	16.4	-4.24	1
2.41515	13.11	16.4	-4.29	1
2.41520	12.75	16.4	-4.65	1
2.41525	13.82	16.4	-3.58	1
2.41530	13.83	16.4	-3.57	1
2.41535	14.38	16.4	-3.02	1
2.41540	14.78	16.4	-2.62	1
2.41545	15.26	16.4	-2.14	1
2.41550	15.28	16.4	-2.12	1
2.41555	14.92	16.4	-2.48	1
2.41560	14.58	16.4	-2.82	1
2.41565	14.68	16.4	-2.72	1
2.41570	14.56	16.4	-2.84	1
2.41575	14.50	16.4	-2.90	1
2.41580	14.00	16.4	-3.40	1
2.41585	14.18	16.4	-3.22	1
2.41590	13.74	16.4	-3.66	1
2.41595	13.98	16.4	-3.42	1
2.41600	13.89	16.4	-3.51	1
2.41605	14.35	16.4	-3.05	1
2.41610	14.12	16.4	-3.28	1
2.41615	15.08	16.4	-2.32	1
2.41620	15.07	16.4	-2.33	1
2.41625	15.48	16.4	-1.92	1
2.41630	15.68	16.4	-1.72	1
2.41635	15.64	16.4	-1.76	1
2.41640	15.65	16.4	-1.75	1
2.41645	15.46	16.4	-1.94	1
2.41650	15.55	16.4	-1.85	1
2.41655	15.00	16.4	-2.40	1
2.41660	15.05	16.4	-2.35	1

11Mbps CHANNEL 1 Processing Gain				
Frequency	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.41665	14.65	16.4	-2.75	1
2.41670	14.45	16.4	-2.95	1
2.41675	14.60	16.4	-2.80	1
2.41680	14.75	16.4	-2.65	1
2.41685	15.28	16.4	-2.12	1
2.41690	15.64	16.4	-1.76	1
2.41695	15.99	16.4	-1.41	1
2.41700	16.85	16.4	-0.55	1
2.41705	16.48	16.4	-0.92	1
2.41710	17.05	16.4	-0.35	1
2.41715	17.16	16.4	-0.24	1
2.41720	17.67	16.4	0.27	1
2.41725	16.50	16.4	-0.90	1
2.41730	17.20	16.4	-0.20	1
2.41735	15.33	16.4	-2.07	1
2.41740	16.17	16.4	-1.23	1
2.41745	16.30	16.4	-1.10	1
2.41750	16.17	16.4	-1.23	1
2.41755	16.58	16.4	-0.82	1
2.41760	16.92	16.4	-0.48	1
2.41765	16.76	16.4	-0.64	1
2.41770	17.54	16.4	0.14	1
2.41775	17.01	16.4	-0.39	1
2.41780	19.01	16.4	1.61	1
2.41785	18.08	16.4	0.68	1
2.41790	19.08	16.4	1.68	1
2.41795	18.76	16.4	1.36	1
2.41800	18.64	16.4	1.24	1

11Mbps CHANNEL 6 Processing Gain				
Freq.	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.43200	15.15	16.4	-2.25	1
2.43205	15.36	16.4	-2.04	1
2.43210	15.36	16.4	-2.04	1
2.43215	14.78	16.4	-2.62	1
2.43220	14.65	16.4	-2.75	1
2.43225	14.68	16.4	-2.72	1
2.43230	14.45	16.4	-2.95	1
2.43235	14.38	16.4	-3.02	1
2.43240	14.58	16.4	-2.82	1
2.43245	14.62	16.4	-2.78	1
2.43250	15.64	16.4	-1.76	1
2.43255	15.45	16.4	-1.95	1
2.43260	15.58	16.4	-1.82	1
2.43265	15.48	16.4	-1.92	1
2.43270	15.65	16.4	-1.75	1
2.43275	14.89	16.4	-2.51	1
2.43280	14.88	16.4	-2.52	1
2.43285	14.6	16.4	-2.8	1
2.43290	13.58	16.4	-3.82	1
2.43295	13.48	16.4	-3.92	1
2.43300	13.69	16.4	-3.71	1
2.43305	12.98	16.4	-4.42	1
2.43310	13.55	16.4	-3.85	1
2.43315	14.62	16.4	-2.78	1
2.43320	14.19	16.4	-3.21	1
2.43325	14.25	16.4	-3.15	1
2.43330	14.38	16.4	-3.02	1
2.43335	14.45	16.4	-2.95	1
2.43340	14.75	16.4	-2.65	1
2.43345	14.36	16.4	-3.04	1
2.43350	14.38	16.4	-3.02	1
2.43355	14.18	16.4	-3.22	1
2.43360	13.55	16.4	-3.85	1
2.43365	13.58	16.4	-3.82	1
2.43370	13.17	16.4	-4.23	1
2.43375	12.95	16.4	-4.45	1

11Mbps CHANNEL 6 Processing Gain				
Freq.	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.43380	12.98	16.4	-4.42	1
2.43385	13.25	16.4	-4.15	1
2.43390	13.48	16.4	-3.92	1
2.43395	13.75	16.4	-3.65	1
2.43400	13.76	16.4	-3.64	1
2.43405	13.78	16.4	-3.62	1
2.43410	13.9	16.4	-3.5	1
2.43415	13.95	16.4	-3.45	1
2.43420	13.95	16.4	-3.45	1
2.43425	13.48	16.4	-3.92	1
2.43430	13.92	16.4	-3.48	1
2.43435	13.66	16.4	-3.74	1
2.43440	12.71	16.4	-4.69	1
2.43445	13.15	16.4	-4.25	1
2.43450	13.13	16.4	-4.27	1
2.43455	12.88	16.4	-4.52	1
2.43460	12.58	16.4	-4.82	1
2.43465	12.6	16.4	-4.8	1
2.43470	12.64	16.4	-4.76	1
2.43475	12.99	16.4	-4.41	1
2.43480	13.5	16.4	-3.9	1
2.43485	13.18	16.4	-4.22	1
2.43490	13.58	16.4	-3.82	1
2.43495	13.61	16.4	-3.79	1
2.43500	13.28	16.4	-4.12	1
2.43505	13.05	16.4	-4.35	1
2.43510	13.08	16.4	-4.32	1
2.43515	13.58	16.4	-3.82	1
2.43520	13.25	16.4	-4.15	1
2.43525	12.95	16.4	-4.45	1
2.43530	12.48	16.4	-4.92	1
2.43535	12.54	16.4	-4.86	1
2.43540	12.53	16.4	-4.87	1
2.43545	12.58	16.4	-4.82	1

11Mbps CHANNEL 6 Processing Gain				
Freq.	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.43550	12.38	16.4	-5.02	1
2.43555	13.01	16.4	-4.39	1
2.43560	13.25	16.4	-4.15	1
2.43565	14.21	16.4	-3.19	1
2.43570	13.95	16.4	-3.45	1
2.43575	13.85	16.4	-3.55	1
2.43580	13.54	16.4	-3.86	1
2.43585	13.87	16.4	-3.53	1
2.43590	12.45	16.4	-4.95	1
2.43595	12.55	16.4	-4.85	1
2.43600	13.54	16.4	-3.86	1
2.43605	12.58	16.4	-4.82	1
2.43610	12.99	16.4	-4.41	1
2.43615	12.54	16.4	-4.86	1
2.43620	11.98	16.4	-5.42	1
2.43625	12.15	16.4	-5.25	1
2.43630	12.14	16.4	-5.26	1
2.43635	13.9	16.4	-3.5	1
2.43640	13.99	16.4	-3.41	1
2.43645	14.28	16.4	-3.12	1
2.43650	14.15	16.4	-3.25	1
2.43655	13.85	16.4	-3.55	1
2.43660	13.97	16.4	-3.43	1
2.43665	12.56	16.4	-4.84	1
2.43670	13.95	16.4	-3.45	1
2.43675	12.54	16.4	-4.86	1
2.43680	13.58	16.4	-3.82	1
2.43685	12.48	16.4	-4.92	1
2.43690	12.54	16.4	-4.86	1
2.43695	12.39	16.4	-5.01	1
2.43700	12.28	16.4	-5.12	1
2.43705	12.48	16.4	-4.92	1
2.43710	12.46	16.4	-4.94	1
2.43715	12.47	16.4	-4.93	1

11Mbps CHANNEL 6 Processing Gain				
Freq.	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.43720	14.18	16.4	-3.22	1
2.43725	13.58	16.4	-3.82	1
2.43730	13.22	16.4	-4.18	1
2.43735	14.42	16.4	-2.98	1
2.43740	13.93	16.4	-3.47	1
2.43745	14.17	16.4	-3.23	1
2.43750	13.95	16.4	-3.45	1
2.43755	13.47	16.4	-3.93	1
2.43760	12.82	16.4	-4.58	1
2.43765	12.99	16.4	-4.41	1
2.43770	12.48	16.4	-4.92	1
2.43775	12.91	16.4	-4.49	1
2.43780	12.71	16.4	-4.69	1
2.43785	13.05	16.4	-4.35	1
2.43790	13.55	16.4	-3.85	1
2.43795	13.58	16.4	-3.82	1
2.43800	13.61	16.4	-3.79	1
2.43805	12.62	16.4	-4.78	1
2.43810	13.69	16.4	-3.71	1
2.43815	13.97	16.4	-3.43	1
2.43820	12.82	16.4	-4.58	1
2.43825	13.54	16.4	-3.86	1
2.43830	13.79	16.4	-3.61	1
2.43835	12.82	16.4	-4.58	1
2.43840	13.37	16.4	-4.03	1
2.43845	13.58	16.4	-3.82	1
2.43850	13.69	16.4	-3.71	1
2.43855	12.58	16.4	-4.82	1
2.43860	12.77	16.4	-4.63	1
2.43865	12.74	16.4	-4.66	1
2.43870	13.55	16.4	-3.85	1
2.43875	13.64	16.4	-3.76	1
2.43880	13.68	16.4	-3.72	1
2.43885	12.54	16.4	-4.86	1

11Mbps CHANNEL 6 Processing Gain				
Freq.	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.43890	13.47	16.4	-3.93	1
2.43895	13.56	16.4	-3.84	1
2.43900	13.54	16.4	-3.86	1
2.43905	13.54	16.4	-3.86	1
2.43910	13.77	16.4	-3.63	1
2.43915	12.4	16.4	-5.00	1
2.43920	12.95	16.4	-4.45	1
2.43925	12.69	16.4	-4.71	1
2.43930	12.68	16.4	-4.72	1
2.43935	12.64	16.4	-4.76	1
2.43940	12.48	16.4	-4.92	1
2.43945	12.35	16.4	-5.05	1
2.43950	12.39	16.4	-5.01	1
2.43955	12.97	16.4	-4.43	1
2.43960	13.95	16.4	-3.45	1
2.43965	14.23	16.4	-3.17	1
2.43970	14.25	16.4	-3.15	1
2.43975	14.31	16.4	-3.09	1
2.43980	12.9	16.4	-4.50	1
2.43985	12.94	16.4	-4.46	1
2.43990	12.65	16.4	-4.75	1
2.43995	13.28	16.4	-4.12	1
2.44000	13.65	16.4	-3.75	1
2.44005	13.55	16.4	-3.85	1
2.44010	13.58	16.4	-3.82	1
2.44015	12.58	16.4	-4.82	1
2.44020	13.68	16.4	-3.72	1
2.44025	14.3	16.4	-3.10	1
2.44030	14.23	16.4	-3.17	1
2.44035	14.54	16.4	-2.86	1
2.44040	15.35	16.4	-2.05	1
2.44045	15.62	16.4	-1.78	1
2.44050	15.33	16.4	-2.07	1
2.44055	15.54	16.4	-1.86	1

11Mbps CHANNEL 6 Processing Gain				
Freq.	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.44060	15.29	16.4	-2.11	1
2.44065	14.65	16.4	-2.75	1
2.44070	14.58	16.4	-2.82	1
2.44075	14.99	16.4	-2.41	1
2.44080	14.31	16.4	-3.09	1
2.44085	14.28	16.4	-3.12	1
2.44090	14.38	16.4	-3.02	1
2.44095	14.25	16.4	-3.15	1
2.44100	14.38	16.4	-3.02	1
2.44105	14.45	16.4	-2.95	1
2.44110	15.28	16.4	-2.12	1
2.44115	15.35	16.4	-2.05	1
2.44120	15.85	16.4	-1.55	1
2.44125	15.47	16.4	-1.93	1
2.44130	16.58	16.4	-0.82	1
2.44135	16.59	16.4	-0.81	1
2.44140	15.06	16.4	-2.34	1
2.44145	16.27	16.4	-1.13	1
2.44150	15.17	16.4	-2.23	1
2.44155	15.28	16.4	-2.12	1
2.44160	15.24	16.4	-2.16	1
2.44165	15.34	16.4	-2.06	1
2.44170	15.45	16.4	-1.95	1
2.44175	15.33	16.4	-2.07	1
2.44180	15.11	16.4	-2.29	1
2.44185	16.08	16.4	-1.32	1
2.44190	15.98	16.4	-1.42	1
2.44195	17.46	16.4	0.06	1
2.44200	17.58	16.4	0.18	1

11Mbps CHANNEL 11 Processing Gain				
Freq.	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.45700	15.52	16.4	-1.88	1
2.45705	16.30	16.4	-1.10	1
2.45710	15.93	16.4	-1.47	1
2.45715	15.42	16.4	-1.98	1
2.45720	14.64	16.4	-2.76	1
2.45725	14.85	16.4	-2.55	1
2.45730	14.45	16.4	-2.95	1
2.45735	14.64	16.4	-2.76	1
2.45740	14.58	16.4	-2.82	1
2.45745	15.03	16.4	-2.37	1
2.45750	14.52	16.4	-2.88	1
2.45755	15.82	16.4	-1.58	1
2.45760	15.45	16.4	-1.95	1
2.45765	15.79	16.4	-1.61	1
2.45770	15.03	16.4	-2.37	1
2.45775	15.12	16.4	-2.28	1
2.45780	15.15	16.4	-2.25	1
2.45785	15.28	16.4	-2.12	1
2.45790	14.95	16.4	-2.45	1
2.45795	15.39	16.4	-2.01	1
2.45800	13.49	16.4	-3.91	1
2.45805	13.64	16.4	-3.76	1
2.45810	13.58	16.4	-3.82	1
2.45815	13.75	16.4	-3.65	1
2.45820	13.48	16.4	-3.92	1
2.45825	14.39	16.4	-3.01	1
2.45830	14.33	16.4	-3.07	1
2.45835	14.13	16.4	-3.27	1
2.45840	14.29	16.4	-3.11	1
2.45845	14.37	16.4	-3.03	1
2.45850	14.58	16.4	-2.82	1
2.45855	14.56	16.4	-2.84	1
2.45860	14.35	16.4	-3.05	1
2.45865	14.68	16.4	-2.72	1

11Mbps CHANNEL 11 Processing Gain				
Freq.	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.45870	13.29	16.4	-4.11	1
2.45875	14.02	16.4	-3.38	1
2.45880	12.74	16.4	-4.66	1
2.45885	13.94	16.4	-3.46	1
2.45890	12.79	16.4	-4.61	1
2.45895	13.61	16.4	-3.79	1
2.45900	13.27	16.4	-4.13	1
2.45905	12.19	16.4	-5.21	1
2.45910	13.47	16.4	-3.93	1
2.45915	13.58	16.4	-3.82	1
2.45920	13.97	16.4	-3.43	1
2.45925	13.46	16.4	-3.94	1
2.45930	13.17	16.4	-4.23	1
2.45935	13.68	16.4	-3.72	1
2.45940	13.43	16.4	-3.97	1
2.45945	13.17	16.4	-4.23	1
2.45950	13.28	16.4	-4.12	1
2.45955	13.10	16.4	-4.30	1
2.45960	12.99	16.4	-4.41	1
2.45965	12.65	16.4	-4.75	1
2.45970	12.47	16.4	-4.93	1
2.45975	12.57	16.4	-4.83	1
2.45980	12.34	16.4	-5.06	1
2.45985	12.44	16.4	-4.96	1
2.45990	12.44	16.4	-4.96	1
2.45995	12.81	16.4	-4.59	1
2.46000	12.76	16.4	-4.64	1
2.46005	12.67	16.4	-4.73	1
2.46010	13.85	16.4	-3.55	1
2.46015	13.47	16.4	-3.93	1
2.46020	13.25	16.4	-4.15	1
2.46025	13.61	16.4	-3.79	1
2.46030	13.28	16.4	-4.12	1
2.46035	13.55	16.4	-3.85	1
2.46040	13.11	16.4	-4.29	1
2.46045	12.35	16.4	-5.05	1

11Mbps CHANNEL 11 Processing Gain				
Freq.	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.46050	11.92	16.4	-5.48	1
2.46055	12.00	16.4	-5.40	1
2.46060	12.64	16.4	-4.76	1
2.46065	13.04	16.4	-4.36	1
2.46070	13.68	16.4	-3.72	1
2.46075	13.62	16.4	-3.78	1
2.46080	13.54	16.4	-3.86	1
2.46085	14.02	16.4	-3.38	1
2.46090	14.05	16.4	-3.35	1
2.46095	14.17	16.4	-3.23	1
2.46100	14.13	16.4	-3.27	1
2.46105	14.29	16.4	-3.11	1
2.46110	13.73	16.4	-3.67	1
2.46115	13.77	16.4	-3.63	1
2.46120	13.33	16.4	-4.07	1
2.46125	12.77	16.4	-4.63	1
2.46130	12.64	16.4	-4.76	1
2.46135	13.04	16.4	-4.36	1
2.46140	13.29	16.4	-4.11	1
2.46145	13.40	16.4	-4.00	1
2.46150	13.44	16.4	-3.96	1
2.46155	13.76	16.4	-3.64	1
2.46160	13.87	16.4	-3.53	1
2.46165	13.89	16.4	-3.51	1
2.46170	13.82	16.4	-3.58	1
2.46175	13.64	16.4	-3.76	1
2.46180	13.68	16.4	-3.72	1
2.46185	13.59	16.4	-3.81	1
2.46190	13.01	16.4	-4.39	1
2.46195	12.35	16.4	-5.05	1
2.46200	12.74	16.4	-4.66	1
2.46205	12.76	16.4	-4.64	1
2.46210	12.93	16.4	-4.47	1
2.46215	12.82	16.4	-4.58	1

11Mbps CHANNEL 11 Processing Gain				
Freq.	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.46220	13.44	16.4	-3.96	1
2.46225	13.63	16.4	-3.77	1
2.46230	13.47	16.4	-3.93	1
2.46235	14.00	16.4	-3.40	1
2.46240	14.01	16.4	-3.39	1
2.46245	13.94	16.4	-3.46	1
2.46250	14.55	16.4	-2.85	1
2.46255	14.67	16.4	-2.73	1
2.46260	14.02	16.4	-3.38	1
2.46265	14.39	16.4	-3.01	1
2.46270	14.26	16.4	-3.14	1
2.46275	13.29	16.4	-4.11	1
2.46280	13.29	16.4	-4.11	1
2.46285	13.54	16.4	-3.86	1
2.46290	12.97	16.4	-4.43	1
2.46295	12.96	16.4	-4.44	1
2.46300	12.91	16.4	-4.49	1
2.46305	13.20	16.4	-4.20	1
2.46310	13.80	16.4	-3.60	1
2.46315	14.63	16.4	-2.77	1
2.46320	16.00	16.4	-1.40	1
2.46325	14.45	16.4	-2.95	1
2.46330	13.85	16.4	-3.55	1
2.46335	13.00	16.4	-4.40	1
2.46340	13.12	16.4	-4.28	1
2.46345	12.99	16.4	-4.41	1
2.46350	12.78	16.4	-4.62	1
2.46355	12.58	16.4	-4.82	1
2.46360	12.43	16.4	-4.97	1
2.46365	12.68	16.4	-4.72	1
2.46370	12.45	16.4	-4.95	1
2.46375	12.46	16.4	-4.94	1
2.46380	12.89	16.4	-4.51	1
2.46385	12.97	16.4	-4.43	1

11Mbps CHANNEL 11 Processing Gain				
Freq.	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.46390	12.56	16.4	-4.84	1
2.46395	12.96	16.4	-4.44	1
2.46400	13.07	16.4	-4.33	1
2.46405	13.05	16.4	-4.35	1
2.46410	13.79	16.4	-3.61	1
2.46415	13.58	16.4	-3.82	1
2.46420	12.93	16.4	-4.47	1
2.46425	12.99	16.4	-4.41	1
2.46430	13.01	16.4	-4.39	1
2.46435	12.43	16.4	-4.97	1
2.46440	12.57	16.4	-4.83	1
2.46445	12.57	16.4	-4.83	1
2.46450	12.53	16.4	-4.87	1
2.46455	12.88	16.4	-4.52	1
2.46460	13.12	16.4	-4.28	1
2.46465	13.04	16.4	-4.36	1
2.46470	14.08	16.4	-3.32	1
2.46475	14.14	16.4	-3.26	1
2.46480	13.94	16.4	-3.46	1
2.46485	14.07	16.4	-3.33	1
2.46490	13.95	16.4	-3.45	1
2.46495	14.01	16.4	-3.39	1
2.46500	13.96	16.4	-3.44	1
2.46505	14.13	16.4	-3.27	1
2.46510	14.24	16.4	-3.16	1
2.46515	14.30	16.4	-3.10	1
2.46520	14.26	16.4	-3.14	1
2.46525	12.24	16.4	-5.16	1
2.46530	14.36	16.4	-3.04	1
2.46535	14.36	16.4	-3.04	1
2.46540	14.64	16.4	-2.76	1
2.46545	14.88	16.4	-2.52	1
2.46550	15.56	16.4	-1.84	1

11Mbps CHANNEL 11 Processing Gain				
Freq.	Gp	(S/N)	Mj = J/S	Lsys
(GHz)	(dB)	(dB)	(dB)	(dB)
2.46555	15.00	16.4	-2.40	1
2.46560	14.78	16.4	-2.62	1
2.46565	15.00	16.4	-2.40	1
2.46570	14.95	16.4	-2.45	1
2.46575	14.99	16.4	-2.41	1
2.46580	14.97	16.4	-2.43	1
2.46585	14.64	16.4	-2.76	1
2.46590	14.56	16.4	-2.84	1
2.46595	12.24	16.4	-5.16	1
2.46600	14.00	16.4	-3.40	1
2.46605	14.00	16.4	-3.40	1
2.46610	14.15	16.4	-3.25	1
2.46615	14.36	16.4	-3.04	1
2.46620	15.00	16.4	-2.40	1
2.46625	15.07	16.4	-2.33	1
2.46630	15.71	16.4	-1.69	1
2.46635	15.36	16.4	-2.04	1
2.46640	15.45	16.4	-1.95	1
2.46645	16.39	16.4	-1.01	1
2.46650	16.38	16.4	-1.02	1
2.46655	16.54	16.4	-0.86	1
2.46660	16.56	16.4	-0.84	1
2.46665	16.35	16.4	-1.05	1
2.46670	15.47	16.4	-1.93	1
2.46675	15.46	16.4	-1.94	1
2.46680	15.13	16.4	-2.27	1
2.46685	16.02	16.4	-1.38	1
2.46690	16.25	16.4	-1.15	1
2.46695	16.13	16.4	-1.27	1
2.46700	16.25	16.4	-1.15	1