

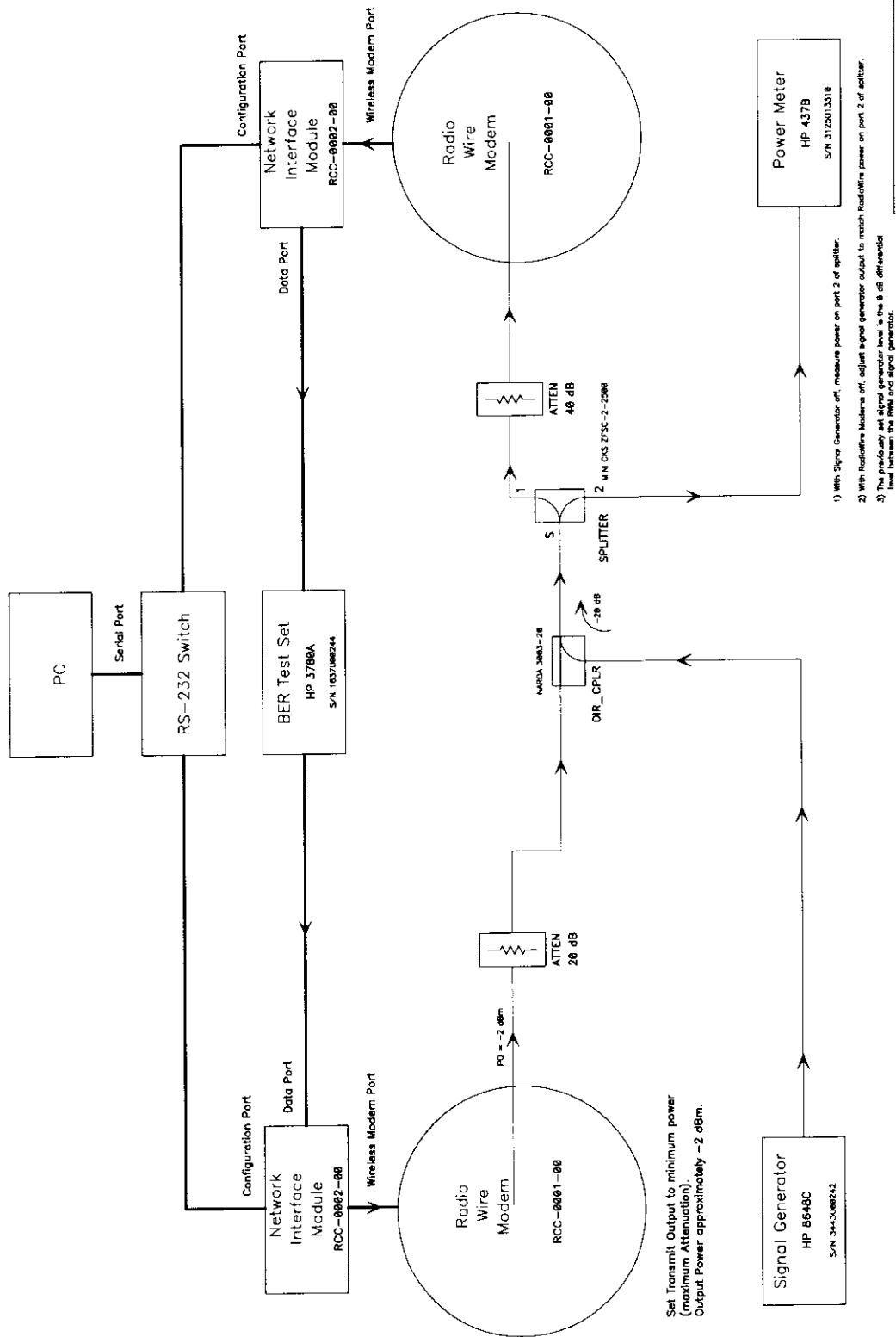
EXHIBIT 4
PROCESS GAIN TEST DATA

Process Gain Test Procedure

- 1) Set up process gain test fixture as shown in figure 1.
- 2) Turn off Signal Generator RF output. Turn on both RadioWire Modems (RWMs).
- 3) Measure power with Power Meter at port 2 of the RF Splitter.
- 4) Turn off RWMs and turn on Signal Generator RF output.
- 5) Set the Signal Generator frequency to match the center frequency of the RWM. Adjust the RF output of the Signal Generator to match the RF output of the RWM.
- 6) Set the attenuator readout of the Signal Generator to indicate a relative output of 0 dB. In this mode, the Signal Generator will display the Jammer level relative to the RWM signal level. If the Jammer level is 2 dB less than the RWM, -2 dB will be displayed on the Signal Generator.
- 7) Turn off the Signal Generator RF output. Turn on the RWMs and allow for synchronization.
- 8) Set Signal Generator RF output to -10 dB and slowly increase the jamming level until a bit error rate of $0.1 * 10^{-5}$ is displayed. This corresponds to an error rate of $1 * 10^{-6}$.
- 9) Log the frequency jammer level relative to the RWM level.
- 10) Increment the frequency of the Signal Generator by 50 kHz. Continue with steps 8 - 10 until the entire passband is logged.

FCC ID: NFX-RCC0001-00

Process Gain Test Setup



RadioConnect Corporation	
(310) 388-3388	
Title Block Diagram, Process Gain Test Fixture	
Size	Number
C	0.1
Date	Drawn by AJT
7/7/98	
Filename	GAINTST.SCH
Sheet	1 of 1

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain	Mj J/S Ratio =	Signal Gen (dBm) - RWM (dBm)
1	2438.35	-4	11.8		
2	2438.40	-4	11.8		
3	2438.45	-4	11.8	Proc. Gain =	Mj J/S + Sys Loss + (S/N)o
4	2439.10	-4	11.8	Sys Loss =	2 dB
5	2439.15	-4	11.8	(S/N)o =	13.8 dB
6	2439.20	-4	11.8		
7	2439.25	-4	11.8	Total # of Samples	501
8	2439.30	-4	11.8	20% of Samples	100
9	2439.35	-4	11.8	Proc Gain @ #101	12.8 dB
10	2439.40	-4	11.8		
11	2439.50	-4	11.8		
12	2439.55	-4	11.8		
13	2439.60	-4	11.8		
14	2439.65	-4	11.8		
15	2439.70	-4	11.8		
16	2436.45	-3	12.8		
17	2436.50	-3	12.8		
18	2436.55	-3	12.8		
19	2436.60	-3	12.8		
20	2436.65	-3	12.8		
21	2436.70	-3	12.8		
22	2436.75	-3	12.8		
23	2436.80	-3	12.8		
24	2436.85	-3	12.8		
25	2436.90	-3	12.8		
26	2436.95	-3	12.8		
27	2437.00	-3	12.8		
28	2437.05	-3	12.8		
29	2437.10	-3	12.8		
30	2437.15	-3	12.8		
31	2437.20	-3	12.8		
32	2437.25	-3	12.8		
33	2437.30	-3	12.8		
34	2437.35	-3	12.8		
35	2437.40	-3	12.8		
36	2437.45	-3	12.8		
37	2437.50	-3	12.8		
38	2437.55	-3	12.8		
39	2437.60	-3	12.8		
40	2437.65	-3	12.8		
41	2437.70	-3	12.8		
42	2437.75	-3	12.8		
43	2437.80	-3	12.8		
44	2437.85	-3	12.8		
45	2437.90	-3	12.8		
46	2437.95	-3	12.8		
47	2438.00	-3	12.8		
48	2438.05	-3	12.8		
49	2438.10	-3	12.8		
50	2438.15	-3	12.8		
51	2438.20	-3	12.8		
52	2438.25	-3	12.8		

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
53	2438.30	-3	12.8
54	2438.50	-3	12.8
55	2438.55	-3	12.8
56	2438.60	-3	12.8
57	2438.65	-3	12.8
58	2438.70	-3	12.8
59	2438.75	-3	12.8
60	2438.80	-3	12.8
61	2438.85	-3	12.8
62	2438.90	-3	12.8
63	2438.95	-3	12.8
64	2439.00	-3	12.8
65	2439.05	-3	12.8
66	2439.45	-3	12.8
67	2439.75	-3	12.8
68	2439.80	-3	12.8
69	2439.85	-3	12.8
70	2439.90	-3	12.8
71	2439.95	-3	12.8
72	2440.00	-3	12.8
73	2440.05	-3	12.8
74	2440.10	-3	12.8
75	2440.15	-3	12.8
76	2440.20	-3	12.8
77	2440.40	-3	12.8
78	2440.45	-3	12.8
79	2440.85	-3	12.8
80	2440.95	-3	12.8
81	2443.40	-3	12.8
82	2443.50	-3	12.8
83	2443.85	-3	12.8
84	2443.90	-3	12.8
85	2443.95	-3	12.8
86	2444.00	-3	12.8
87	2444.10	-3	12.8
88	2444.15	-3	12.8
89	2444.30	-3	12.8
90	2444.35	-3	12.8
91	2444.40	-3	12.8
92	2444.45	-3	12.8
93	2444.65	-3	12.8
94	2444.70	-3	12.8
95	2444.85	-3	12.8
96	2444.90	-3	12.8
97	2444.95	-3	12.8
98	2445.00	-3	12.8
99	2445.05	-3	12.8
100	2445.10	-3	12.8
101	2445.15	-3	12.8
102	2445.20	-3	12.8
103	2445.25	-3	12.8
104	2445.30	-3	12.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
105	2445.35	-3	12.8
106	2445.45	-3	12.8
107	2445.50	-3	12.8
108	2445.75	-3	12.8
109	2445.80	-3	12.8
110	2445.85	-3	12.8
111	2446.00	-3	12.8
112	2446.05	-3	12.8
113	2446.10	-3	12.8
114	2446.15	-3	12.8
115	2446.20	-3	12.8
116	2446.30	-3	12.8
117	2446.35	-3	12.8
118	2446.40	-3	12.8
119	2446.70	-3	12.8
120	2446.75	-3	12.8
121	2446.80	-3	12.8
122	2442.90	-2.5	13.3
123	2434.50	-2	13.8
124	2434.55	-2	13.8
125	2434.60	-2	13.8
126	2434.65	-2	13.8
127	2434.70	-2	13.8
128	2434.90	-2	13.8
129	2434.95	-2	13.8
130	2435.40	-2	13.8
131	2435.45	-2	13.8
132	2435.50	-2	13.8
133	2435.55	-2	13.8
134	2435.60	-2	13.8
135	2435.80	-2	13.8
136	2435.85	-2	13.8
137	2435.90	-2	13.8
138	2435.95	-2	13.8
139	2436.00	-2	13.8
140	2436.05	-2	13.8
141	2436.10	-2	13.8
142	2436.15	-2	13.8
143	2436.20	-2	13.8
144	2436.25	-2	13.8
145	2436.30	-2	13.8
146	2436.35	-2	13.8
147	2436.40	-2	13.8
148	2440.25	-2	13.8
149	2440.30	-2	13.8
150	2440.35	-2	13.8
151	2440.50	-2	13.8
152	2440.55	-2	13.8
153	2440.60	-2	13.8
154	2440.65	-2	13.8
155	2440.70	-2	13.8
156	2440.75	-2	13.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
157	2440.80	-2	13.8
158	2440.90	-2	13.8
159	2441.00	-2	13.8
160	2441.05	-2	13.8
161	2441.10	-2	13.8
162	2441.15	-2	13.8
163	2441.25	-2	13.8
164	2441.30	-2	13.8
165	2441.35	-2	13.8
166	2442.30	-2	13.8
167	2442.40	-2	13.8
168	2442.50	-2	13.8
169	2442.55	-2	13.8
170	2442.60	-2	13.8
171	2442.85	-2	13.8
172	2442.95	-2	13.8
173	2443.00	-2	13.8
174	2443.05	-2	13.8
175	2443.10	-2	13.8
176	2443.15	-2	13.8
177	2443.20	-2	13.8
178	2443.25	-2	13.8
179	2443.30	-2	13.8
180	2443.35	-2	13.8
181	2443.45	-2	13.8
182	2443.55	-2	13.8
183	2443.60	-2	13.8
184	2443.65	-2	13.8
185	2443.70	-2	13.8
186	2443.75	-2	13.8
187	2443.80	-2	13.8
188	2444.05	-2	13.8
189	2444.20	-2	13.8
190	2444.25	-2	13.8
191	2444.50	-2	13.8
192	2444.60	-2	13.8
193	2444.75	-2	13.8
194	2444.80	-2	13.8
195	2445.40	-2	13.8
196	2445.55	-2	13.8
197	2445.60	-2	13.8
198	2445.65	-2	13.8
199	2445.70	-2	13.8
200	2445.90	-2	13.8
201	2445.95	-2	13.8
202	2446.25	-2	13.8
203	2446.45	-2	13.8
204	2446.50	-2	13.8
205	2446.55	-2	13.8
206	2446.60	-2	13.8
207	2446.65	-2	13.8
208	2446.85	-2	13.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
209	2446.90	-2	13.8
210	2446.95	-2	13.8
211	2447.00	-2	13.8
212	2447.05	-2	13.8
213	2447.10	-2	13.8
214	2447.15	-2	13.8
215	2447.20	-2	13.8
216	2447.55	-2	13.8
217	2447.60	-2	13.8
218	2434.25	-1	14.8
219	2434.30	-1	14.8
220	2434.35	-1	14.8
221	2434.40	-1	14.8
222	2434.45	-1	14.8
223	2434.75	-1	14.8
224	2434.80	-1	14.8
225	2434.85	-1	14.8
226	2435.00	-1	14.8
227	2435.05	-1	14.8
228	2435.10	-1	14.8
229	2435.15	-1	14.8
230	2435.20	-1	14.8
231	2435.25	-1	14.8
232	2435.30	-1	14.8
233	2435.35	-1	14.8
234	2435.65	-1	14.8
235	2435.70	-1	14.8
236	2435.75	-1	14.8
237	2441.20	-1	14.8
238	2441.40	-1	14.8
239	2441.45	-1	14.8
240	2441.50	-1	14.8
241	2441.55	-1	14.8
242	2441.60	-1	14.8
243	2441.65	-1	14.8
244	2441.70	-1	14.8
245	2441.75	-1	14.8
246	2441.80	-1	14.8
247	2441.85	-1	14.8
248	2441.90	-1	14.8
249	2442.00	-1	14.8
250	2442.05	-1	14.8
251	2442.10	-1	14.8
252	2442.15	-1	14.8
253	2442.20	-1	14.8
254	2442.25	-1	14.8
255	2442.35	-1	14.8
256	2442.45	-1	14.8
257	2442.65	-1	14.8
258	2442.70	-1	14.8
259	2442.75	-1	14.8
260	2442.80	-1	14.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
261	2444.55	-1	14.8
262	2447.25	-1	14.8
263	2447.30	-1	14.8
264	2447.35	-1	14.8
265	2447.40	-1	14.8
266	2447.45	-1	14.8
267	2447.50	-1	14.8
268	2447.65	-1	14.8
269	2447.70	-1	14.8
270	2447.75	-1	14.8
271	2433.50	0	15.8
272	2433.55	0	15.8
273	2433.60	0	15.8
274	2433.65	0	15.8
275	2433.70	0	15.8
276	2433.75	0	15.8
277	2433.80	0	15.8
278	2433.85	0	15.8
279	2433.90	0	15.8
280	2433.95	0	15.8
281	2434.00	0	15.8
282	2434.05	0	15.8
283	2434.10	0	15.8
284	2434.15	0	15.8
285	2434.20	0	15.8
286	2441.95	0	15.8
287	2447.80	0	15.8
288	2447.85	0	15.8
289	2447.90	0	15.8
290	2447.95	0	15.8
291	2448.00	0	15.8
292	2448.05	0	15.8
293	2448.10	0	15.8
294	2448.15	0	15.8
295	2448.20	0	15.8
296	2448.25	0	15.8
297	2448.30	0	15.8
298	2448.35	0	15.8
299	2448.45	0	15.8
300	2448.50	0	15.8
301	2432.95	1	16.8
302	2433.00	1	16.8
303	2433.05	1	16.8
304	2433.10	1	16.8
305	2433.20	1	16.8
306	2433.25	1	16.8
307	2433.30	1	16.8
308	2433.35	1	16.8
309	2433.40	1	16.8
310	2433.45	1	16.8
311	2448.40	1	16.8
312	2448.55	1	16.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
313	2448.60	1	16.8
314	2448.65	1	16.8
315	2448.70	1	16.8
316	2448.80	1	16.8
317	2431.95	2	17.8
318	2432.00	2	17.8
319	2432.05	2	17.8
320	2432.10	2	17.8
321	2432.15	2	17.8
322	2432.20	2	17.8
323	2432.25	2	17.8
324	2432.30	2	17.8
325	2432.50	2	17.8
326	2432.55	2	17.8
327	2432.60	2	17.8
328	2432.65	2	17.8
329	2432.75	2	17.8
330	2432.80	2	17.8
331	2432.85	2	17.8
332	2432.90	2	17.8
333	2433.15	2	17.8
334	2448.75	2	17.8
335	2448.85	2	17.8
336	2448.90	2	17.8
337	2448.95	2	17.8
338	2449.00	2	17.8
339	2449.05	2	17.8
340	2431.80	3	18.8
341	2431.85	3	18.8
342	2431.90	3	18.8
343	2432.35	3	18.8
344	2432.40	3	18.8
345	2432.45	3	18.8
346	2432.70	3	18.8
347	2449.10	3	18.8
348	2449.15	3	18.8
349	2449.20	3	18.8
350	2449.25	3	18.8
351	2449.35	3	18.8
352	2449.40	3	18.8
353	2431.70	4	19.8
354	2431.75	4	19.8
355	2449.30	4	19.8
356	2449.45	4	19.8
357	2449.50	4	19.8
358	2449.55	4	19.8
359	2449.60	4	19.8
360	2449.65	4	19.8
361	2449.70	4	19.8
362	2449.75	4	19.8
363	2449.80	4	19.8
364	2449.85	4	19.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
365	2449.90	4	19.8
366	2449.95	4	19.8
367	2430.40	5	20.8
368	2430.45	5	20.8
369	2430.50	5	20.8
370	2430.60	5	20.8
371	2430.65	5	20.8
372	2430.70	5	20.8
373	2430.75	5	20.8
374	2430.80	5	20.8
375	2430.85	5	20.8
376	2430.90	5	20.8
377	2430.95	5	20.8
378	2431.15	5	20.8
379	2431.20	5	20.8
380	2431.25	5	20.8
381	2431.30	5	20.8
382	2431.35	5	20.8
383	2431.40	5	20.8
384	2431.45	5	20.8
385	2431.50	5	20.8
386	2431.60	5	20.8
387	2431.65	5	20.8
388	2450.00	5	20.8
389	2450.10	5	20.8
390	2450.15	5	20.8
391	2450.20	5	20.8
392	2450.25	5	20.8
393	2450.30	5	20.8
394	2450.35	5	20.8
395	2450.40	5	20.8
396	2429.95	6	21.8
397	2430.00	6	21.8
398	2430.05	6	21.8
399	2430.10	6	21.8
400	2430.15	6	21.8
401	2430.20	6	21.8
402	2430.25	6	21.8
403	2430.30	6	21.8
404	2430.35	6	21.8
405	2430.55	6	21.8
406	2431.00	6	21.8
407	2431.05	6	21.8
408	2431.10	6	21.8
409	2431.55	6	21.8
410	2450.05	6	21.8
411	2450.45	6	21.8
412	2429.90	7	22.8
413	2450.50	7	22.8
414	2450.55	7	22.8
415	2450.65	7	22.8
416	2450.70	7	22.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
417	2429.65	8	23.8
418	2429.70	8	23.8
419	2429.75	8	23.8
420	2429.80	8	23.8
421	2429.85	8	23.8
422	2450.60	8	23.8
423	2450.75	8	23.8
424	2450.80	8	23.8
425	2450.85	8	23.8
426	2450.90	8	23.8
427	2429.00	9	24.8
428	2429.05	9	24.8
429	2429.10	9	24.8
430	2429.15	9	24.8
431	2429.20	9	24.8
432	2429.25	9	24.8
433	2429.30	9	24.8
434	2429.35	9	24.8
435	2429.40	9	24.8
436	2429.45	9	24.8
437	2429.50	9	24.8
438	2429.55	9	24.8
439	2429.60	9	24.8
440	2450.95	9	24.8
441	2451.00	9	24.8
442	2451.05	9	24.8
443	2451.10	9	24.8
444	2451.20	9	24.8
445	2451.25	9	24.8
446	2451.30	9	24.8
447	2451.40	9	24.8
448	2428.70	10	25.8
449	2428.75	10	25.8
450	2428.80	10	25.8
451	2428.85	10	25.8
452	2428.90	10	25.8
453	2428.95	10	25.8
454	2451.15	10	25.8
455	2451.35	10	25.8
456	2451.45	10	25.8
457	2451.50	10	25.8
458	2451.55	11	26.8
459	2451.60	11	26.8
460	2451.65	11	26.8
461	2451.70	11	26.8
462	2451.75	11	26.8
463	2451.80	11	26.8
464	2451.85	12	27.8
465	2451.90	12	27.8
466	2451.95	12	27.8
467	2452.00	12	27.8
468	2452.05	13	28.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
469	2452.10	13	28.8
470	2452.15	13	28.8
471	2452.20	13	28.8
472	2452.25	13	28.8
473	2452.30	14	29.8
474	2452.35	14	29.8
475	2452.40	15	30.8
476	2452.45	15	30.8
477	2452.50	15	30.8
478	2452.55	16	31.8
479	2452.60	16	31.8
480	2452.65	16	31.8
481	2452.70	16	31.8
482	2452.75	16	31.8
483	2452.80	17	32.8
484	2452.85	17	32.8
485	2452.90	17	32.8
486	2452.95	17	32.8
487	2453.00	18	33.8
488	2453.05	18	33.8
489	2453.10	18	33.8
490	2453.15	18	33.8
491	2453.20	19	34.8
492	2453.25	20	35.8
493	2453.30	20	35.8
494	2453.35	20	35.8
495	2453.40	20	35.8
496	2453.45	21	36.8
497	2453.50	21	36.8
498	2453.55	21	36.8
499	2453.60	21	36.8
500	2453.65	22	37.8
501	2453.70	23	38.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
1	2428.70	10	25.8
2	2428.75	10	25.8
3	2428.80	10	25.8
4	2428.85	10	25.8
5	2428.90	10	25.8
6	2428.95	10	25.8
7	2429.00	9	24.8
8	2429.05	9	24.8
9	2429.10	9	24.8
10	2429.15	9	24.8
11	2429.20	9	24.8
12	2429.25	9	24.8
13	2429.30	9	24.8
14	2429.35	9	24.8
15	2429.40	9	24.8
16	2429.45	9	24.8
17	2429.50	9	24.8
18	2429.55	9	24.8
19	2429.60	9	24.8
20	2429.65	8	23.8
21	2429.70	8	23.8
22	2429.75	8	23.8
23	2429.80	8	23.8
24	2429.85	8	23.8
25	2429.90	7	22.8
26	2429.95	6	21.8
27	2430.00	6	21.8
28	2430.05	6	21.8
29	2430.10	6	21.8
30	2430.15	6	21.8
31	2430.20	6	21.8
32	2430.25	6	21.8
33	2430.30	6	21.8
34	2430.35	6	21.8
35	2430.40	5	20.8
36	2430.45	5	20.8
37	2430.50	5	20.8
38	2430.55	6	21.8
39	2430.60	5	20.8
40	2430.65	5	20.8
41	2430.70	5	20.8
42	2430.75	5	20.8
43	2430.80	5	20.8
44	2430.85	5	20.8
45	2430.90	5	20.8
46	2430.95	5	20.8
47	2431.00	6	21.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
48	2431.05	6	21.8
49	2431.10	6	21.8
50	2431.15	5	20.8
51	2431.20	5	20.8
52	2431.25	5	20.8
53	2431.30	5	20.8
54	2431.35	5	20.8
55	2431.40	5	20.8
56	2431.45	5	20.8
57	2431.50	5	20.8
58	2431.55	6	21.8
59	2431.60	5	20.8
60	2431.65	5	20.8
61	2431.70	4	19.8
62	2431.75	4	19.8
63	2431.80	3	18.8
64	2431.85	3	18.8
65	2431.90	3	18.8
66	2431.95	2	17.8
67	2432.00	2	17.8
68	2432.05	2	17.8
69	2432.10	2	17.8
70	2432.15	2	17.8
71	2432.20	2	17.8
72	2432.25	2	17.8
73	2432.30	2	17.8
74	2432.35	3	18.8
75	2432.40	3	18.8
76	2432.45	3	18.8
77	2432.50	2	17.8
78	2432.55	2	17.8
79	2432.60	2	17.8
80	2432.65	2	17.8
81	2432.70	3	18.8
82	2432.75	2	17.8
83	2432.80	2	17.8
84	2432.85	2	17.8
85	2432.90	2	17.8
86	2432.95	1	16.8
87	2433.00	1	16.8
88	2433.05	1	16.8
89	2433.10	1	16.8
90	2433.15	2	17.8
91	2433.20	1	16.8
92	2433.25	1	16.8
93	2433.30	1	16.8
94	2433.35	1	16.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	MJ J/S Ratio	Processing Gain
95	2433.40	1	16.8
96	2433.45	1	16.8
97	2433.50	0	15.8
98	2433.55	0	15.8
99	2433.60	0	15.8
100	2433.65	0	15.8
101	2433.70	0	15.8
102	2433.75	0	15.8
103	2433.80	0	15.8
104	2433.85	0	15.8
105	2433.90	0	15.8
106	2433.95	0	15.8
107	2434.00	0	15.8
108	2434.05	0	15.8
109	2434.10	0	15.8
110	2434.15	0	15.8
111	2434.20	0	15.8
112	2434.25	-1	14.8
113	2434.30	-1	14.8
114	2434.35	-1	14.8
115	2434.40	-1	14.8
116	2434.45	-1	14.8
117	2434.50	-2	13.8
118	2434.55	-2	13.8
119	2434.60	-2	13.8
120	2434.65	-2	13.8
121	2434.70	-2	13.8
122	2434.75	-1	14.8
123	2434.80	-1	14.8
124	2434.85	-1	14.8
125	2434.90	-2	13.8
126	2434.95	-2	13.8
127	2435.00	-1	14.8
128	2435.05	-1	14.8
129	2435.10	-1	14.8
130	2435.15	-1	14.8
131	2435.20	-1	14.8
132	2435.25	-1	14.8
133	2435.30	-1	14.8
134	2435.35	-1	14.8
135	2435.40	-2	13.8
136	2435.45	-2	13.8
137	2435.50	-2	13.8
138	2435.55	-2	13.8
139	2435.60	-2	13.8
140	2435.65	-1	14.8
141	2435.70	-1	14.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
142	2435.75	-1	14.8
143	2435.80	-2	13.8
144	2435.85	-2	13.8
145	2435.90	-2	13.8
146	2435.95	-2	13.8
147	2436.00	-2	13.8
148	2436.05	-2	13.8
149	2436.10	-2	13.8
150	2436.15	-2	13.8
151	2436.20	-2	13.8
152	2436.25	-2	13.8
153	2436.30	-2	13.8
154	2436.35	-2	13.8
155	2436.40	-2	13.8
156	2436.45	-3	12.8
157	2436.50	-3	12.8
158	2436.55	-3	12.8
159	2436.60	-3	12.8
160	2436.65	-3	12.8
161	2436.70	-3	12.8
162	2436.75	-3	12.8
163	2436.80	-3	12.8
164	2436.85	-3	12.8
165	2436.90	-3	12.8
166	2436.95	-3	12.8
167	2437.00	-3	12.8
168	2437.05	-3	12.8
169	2437.10	-3	12.8
170	2437.15	-3	12.8
171	2437.20	-3	12.8
172	2437.25	-3	12.8
173	2437.30	-3	12.8
174	2437.35	-3	12.8
175	2437.40	-3	12.8
176	2437.45	-3	12.8
177	2437.50	-3	12.8
178	2437.55	-3	12.8
179	2437.60	-3	12.8
180	2437.65	-3	12.8
181	2437.70	-3	12.8
182	2437.75	-3	12.8
183	2437.80	-3	12.8
184	2437.85	-3	12.8
185	2437.90	-3	12.8
186	2437.95	-3	12.8
187	2438.00	-3	12.8
188	2438.05	-3	12.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
189	2438.10	-3	12.8
190	2438.15	-3	12.8
191	2438.20	-3	12.8
192	2438.25	-3	12.8
193	2438.30	-3	12.8
194	2438.35	-4	11.8
195	2438.40	-4	11.8
196	2438.45	-4	11.8
197	2438.50	-3	12.8
198	2438.55	-3	12.8
199	2438.60	-3	12.8
200	2438.65	-3	12.8
201	2438.70	-3	12.8
202	2438.75	-3	12.8
203	2438.80	-3	12.8
204	2438.85	-3	12.8
205	2438.90	-3	12.8
206	2438.95	-3	12.8
207	2439.00	-3	12.8
208	2439.05	-3	12.8
209	2439.10	-4	11.8
210	2439.15	-4	11.8
211	2439.20	-4	11.8
212	2439.25	-4	11.8
213	2439.30	-4	11.8
214	2439.35	-4	11.8
215	2439.40	-4	11.8
216	2439.45	-3	12.8
217	2439.50	-4	11.8
218	2439.55	-4	11.8
219	2439.60	-4	11.8
220	2439.65	-4	11.8
221	2439.70	-4	11.8
222	2439.75	-3	12.8
223	2439.80	-3	12.8
224	2439.85	-3	12.8
225	2439.90	-3	12.8
226	2439.95	-3	12.8
227	2440.00	-3	12.8
228	2440.05	-3	12.8
229	2440.10	-3	12.8
230	2440.15	-3	12.8
231	2440.20	-3	12.8
232	2440.25	-2	13.8
233	2440.30	-2	13.8
234	2440.35	-2	13.8
235	2440.40	-3	12.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
236	2440.45	-3	12.8
237	2440.50	-2	13.8
238	2440.55	-2	13.8
239	2440.60	-2	13.8
240	2440.65	-2	13.8
241	2440.70	-2	13.8
242	2440.75	-2	13.8
243	2440.80	-2	13.8
244	2440.85	-3	12.8
245	2440.90	-2	13.8
246	2440.95	-3	12.8
247	2441.00	-2	13.8
248	2441.05	-2	13.8
249	2441.10	-2	13.8
250	2441.15	-2	13.8
251	2441.20	-1	14.8
252	2441.25	-2	13.8
253	2441.30	-2	13.8
254	2441.35	-2	13.8
255	2441.40	-1	14.8
256	2441.45	-1	14.8
257	2441.50	-1	14.8
258	2441.55	-1	14.8
259	2441.60	-1	14.8
260	2441.65	-1	14.8
261	2441.70	-1	14.8
262	2441.75	-1	14.8
263	2441.80	-1	14.8
264	2441.85	-1	14.8
265	2441.90	-1	14.8
266	2441.95	0	15.8
267	2442.00	-1	14.8
268	2442.05	-1	14.8
269	2442.10	-1	14.8
270	2442.15	-1	14.8
271	2442.20	-1	14.8
272	2442.25	-1	14.8
273	2442.30	-2	13.8
274	2442.35	-1	14.8
275	2442.40	-2	13.8
276	2442.45	-1	14.8
277	2442.50	-2	13.8
278	2442.55	-2	13.8
279	2442.60	-2	13.8
280	2442.65	-1	14.8
281	2442.70	-1	14.8
282	2442.75	-1	14.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
283	2442.80	-1	14.8
284	2442.85	-2	13.8
285	2442.90	-2.5	13.3
286	2442.95	-2	13.8
287	2443.00	-2	13.8
288	2443.05	-2	13.8
289	2443.10	-2	13.8
290	2443.15	-2	13.8
291	2443.20	-2	13.8
292	2443.25	-2	13.8
293	2443.30	-2	13.8
294	2443.35	-2	13.8
295	2443.40	-3	12.8
296	2443.45	-2	13.8
297	2443.50	-3	12.8
298	2443.55	-2	13.8
299	2443.60	-2	13.8
300	2443.65	-2	13.8
301	2443.70	-2	13.8
302	2443.75	-2	13.8
303	2443.80	-2	13.8
304	2443.85	-3	12.8
305	2443.90	-3	12.8
306	2443.95	-3	12.8
307	2444.00	-3	12.8
308	2444.05	-2	13.8
309	2444.10	-3	12.8
310	2444.15	-3	12.8
311	2444.20	-2	13.8
312	2444.25	-2	13.8
313	2444.30	-3	12.8
314	2444.35	-3	12.8
315	2444.40	-3	12.8
316	2444.45	-3	12.8
317	2444.50	-2	13.8
318	2444.55	-1	14.8
319	2444.60	-2	13.8
320	2444.65	-3	12.8
321	2444.70	-3	12.8
322	2444.75	-2	13.8
323	2444.80	-2	13.8
324	2444.85	-3	12.8
325	2444.90	-3	12.8
326	2444.95	-3	12.8
327	2445.00	-3	12.8
328	2445.05	-3	12.8
329	2445.10	-3	12.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
330	2445.15	-3	12.8
331	2445.20	-3	12.8
332	2445.25	-3	12.8
333	2445.30	-3	12.8
334	2445.35	-3	12.8
335	2445.40	-2	13.8
336	2445.45	-3	12.8
337	2445.50	-3	12.8
338	2445.55	-2	13.8
339	2445.60	-2	13.8
340	2445.65	-2	13.8
341	2445.70	-2	13.8
342	2445.75	-3	12.8
343	2445.80	-3	12.8
344	2445.85	-3	12.8
345	2445.90	-2	13.8
346	2445.95	-2	13.8
347	2446.00	-3	12.8
348	2446.05	-3	12.8
349	2446.10	-3	12.8
350	2446.15	-3	12.8
351	2446.20	-3	12.8
352	2446.25	-2	13.8
353	2446.30	-3	12.8
354	2446.35	-3	12.8
355	2446.40	-3	12.8
356	2446.45	-2	13.8
357	2446.50	-2	13.8
358	2446.55	-2	13.8
359	2446.60	-2	13.8
360	2446.65	-2	13.8
361	2446.70	-3	12.8
362	2446.75	-3	12.8
363	2446.80	-3	12.8
364	2446.85	-2	13.8
365	2446.90	-2	13.8
366	2446.95	-2	13.8
367	2447.00	-2	13.8
368	2447.05	-2	13.8
369	2447.10	-2	13.8
370	2447.15	-2	13.8
371	2447.20	-2	13.8
372	2447.25	-1	14.8
373	2447.30	-1	14.8
374	2447.35	-1	14.8
375	2447.40	-1	14.8
376	2447.45	-1	14.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
377	2447.50	-1	14.8
378	2447.55	-2	13.8
379	2447.60	-2	13.8
380	2447.65	-1	14.8
381	2447.70	-1	14.8
382	2447.75	-1	14.8
383	2447.80	0	15.8
384	2447.85	0	15.8
385	2447.90	0	15.8
386	2447.95	0	15.8
387	2448.00	0	15.8
388	2448.05	0	15.8
389	2448.10	0	15.8
390	2448.15	0	15.8
391	2448.20	0	15.8
392	2448.25	0	15.8
393	2448.30	0	15.8
394	2448.35	0	15.8
395	2448.40	1	16.8
396	2448.45	0	15.8
397	2448.50	0	15.8
398	2448.55	1	16.8
399	2448.60	1	16.8
400	2448.65	1	16.8
401	2448.70	1	16.8
402	2448.75	2	17.8
403	2448.80	1	16.8
404	2448.85	2	17.8
405	2448.90	2	17.8
406	2448.95	2	17.8
407	2449.00	2	17.8
408	2449.05	2	17.8
409	2449.10	3	18.8
410	2449.15	3	18.8
411	2449.20	3	18.8
412	2449.25	3	18.8
413	2449.30	4	19.8
414	2449.35	3	18.8
415	2449.40	3	18.8
416	2449.45	4	19.8
417	2449.50	4	19.8
418	2449.55	4	19.8
419	2449.60	4	19.8
420	2449.65	4	19.8
421	2449.70	4	19.8
422	2449.75	4	19.8
423	2449.80	4	19.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
424	2449.85	4	19.8
425	2449.90	4	19.8
426	2449.95	4	19.8
427	2450.00	5	20.8
428	2450.05	6	21.8
429	2450.10	5	20.8
430	2450.15	5	20.8
431	2450.20	5	20.8
432	2450.25	5	20.8
433	2450.30	5	20.8
434	2450.35	5	20.8
435	2450.40	5	20.8
436	2450.45	6	21.8
437	2450.50	7	22.8
438	2450.55	7	22.8
439	2450.60	8	23.8
440	2450.65	7	22.8
441	2450.70	7	22.8
442	2450.75	8	23.8
443	2450.80	8	23.8
444	2450.85	8	23.8
445	2450.90	8	23.8
446	2450.95	9	24.8
447	2451.00	9	24.8
448	2451.05	9	24.8
449	2451.10	9	24.8
450	2451.15	10	25.8
451	2451.20	9	24.8
452	2451.25	9	24.8
453	2451.30	9	24.8
454	2451.35	10	25.8
455	2451.40	9	24.8
456	2451.45	10	25.8
457	2451.50	10	25.8
458	2451.55	11	26.8
459	2451.60	11	26.8
460	2451.65	11	26.8
461	2451.70	11	26.8
462	2451.75	11	26.8
463	2451.80	11	26.8
464	2451.85	12	27.8
465	2451.90	12	27.8
466	2451.95	12	27.8
467	2452.00	12	27.8
468	2452.05	13	28.8
469	2452.10	13	28.8
470	2452.15	13	28.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
471	2452.20	13	28.8
472	2452.25	13	28.8
473	2452.30	14	29.8
474	2452.35	14	29.8
475	2452.40	15	30.8
476	2452.45	15	30.8
477	2452.50	15	30.8
478	2452.55	16	31.8
479	2452.60	16	31.8
480	2452.65	16	31.8
481	2452.70	16	31.8
482	2452.75	16	31.8
483	2452.80	17	32.8
484	2452.85	17	32.8
485	2452.90	17	32.8
486	2452.95	17	32.8
487	2453.00	18	33.8
488	2453.05	18	33.8
489	2453.10	18	33.8
490	2453.15	18	33.8
491	2453.20	19	34.8
492	2453.25	20	35.8
493	2453.30	20	35.8
494	2453.35	20	35.8
495	2453.40	20	35.8
496	2453.45	21	36.8
497	2453.50	21	36.8
498	2453.55	21	36.8
499	2453.60	21	36.8
500	2453.65	22	37.8
501	2453.70	23	38.8

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation Combiner Loss Cable Loss System Loss S/N ratio	20 1 1 2 13.8
2441.20	-9.30	-31.30	-32.30	-1.00	14.80		
2441.25	-9.30	-31.30	-33.30	-2.00	13.80		
2441.30	-9.30	-31.30	-33.30	-2.00	13.80		
2441.35	-9.30	-31.30	-33.30	-2.00	13.80		
2441.40	-9.30	-31.30	-32.30	-1.00	14.80		
2441.45	-9.30	-31.30	-32.30	-1.00	14.80	Signal Level = TX Output - Attenuation -	
2441.50	-9.30	-31.30	-32.30	-1.00	14.80	Combiner Loss - Cable Loss of the EUT	
2441.55	-9.30	-31.30	-32.30	-1.00	14.80		
2441.60	-9.30	-31.30	-32.30	-1.00	14.80	Mj J/S ratio =	
2441.65	-9.30	-31.30	-32.30	-1.00	14.80	CW Noise - Sig. Level	
2441.70	-9.30	-31.30	-32.30	-1.00	14.80		
2441.75	-9.30	-31.30	-32.30	-1.00	14.80		
2441.80	-9.30	-31.30	-32.30	-1.00	14.80	Processing Gain =	
2441.85	-9.30	-31.30	-32.30	-1.00	14.80	Mj J/S ratio + System Loss + S/N ratio.	
2441.90	-9.30	-31.30	-32.30	-1.00	14.80		
2441.95	-9.30	-31.30	-31.30	0.00	15.80		
2442.00	-9.30	-31.30	-32.30	-1.00	14.80		
2442.05	-9.30	-31.30	-32.30	-1.00	14.80		
2442.10	-9.30	-31.30	-32.30	-1.00	14.80		
2442.15	-9.30	-31.30	-32.30	-1.00	14.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2442.20	-9.30	-31.30	-32.30	-1.00	14.80
2442.25	-9.30	-31.30	-32.30	-1.00	14.80
2442.30	-9.30	-31.30	-33.30	-2.00	13.80
2442.35	-9.30	-31.30	-32.30	-1.00	14.80
2442.40	-9.30	-31.30	-33.30	-2.00	13.80
2442.45	-9.30	-31.30	-32.30	-1.00	14.80
2442.50	-9.30	-31.30	-33.30	-2.00	13.80
2442.55	-9.30	-31.30	-33.30	-2.00	13.80
2442.60	-9.30	-31.30	-33.30	-2.00	13.80
2442.65	-9.30	-31.30	-32.30	-1.00	14.80
2442.70	-9.30	-31.30	-32.30	-1.00	14.80
2442.75	-9.30	-31.30	-32.30	-1.00	14.80
2442.80	-9.30	-31.30	-32.30	-1.00	14.80
2442.85	-9.30	-31.30	-33.30	-2.00	13.80
2442.90	-9.30	-31.30	-33.80	-2.50	13.30
2442.95	-9.30	-31.30	-33.30	-2.00	13.80
2443.00	-9.30	-31.30	-33.30	-2.00	13.80
2443.05	-9.30	-31.30	-33.30	-2.00	13.80
2443.10	-9.30	-31.30	-33.30	-2.00	13.80
2443.15	-9.30	-31.30	-33.30	-2.00	13.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2443.20	-9.30	-31.30	-33.30	-2.00	13.80	Combiner Loss	1
2443.25	-9.30	-31.30	-33.30	-2.00	13.80	Cable Loss of EUT	1
2443.30	-9.30	-31.30	-33.30	-2.00	13.80	System Loss	2
2443.35	-9.30	-31.30	-33.30	-2.00	13.80	S/N ratio	13.8
2443.40	-9.30	-31.30	-34.30	-3.00	12.80		
2443.45	-9.30	-31.30	-33.30	-2.00	13.80	Signal Level = TX Ouput - Attenuation -	
2443.50	-9.30	-31.30	-34.30	-3.00	12.80	Combiner Loss - Cable Loss of the EUT	
2443.55	-9.30	-31.30	-33.30	-2.00	13.80	Mj J/S ratio =	
2443.60	-9.30	-31.30	-33.30	-2.00	13.80	CW Noise - Sig. Level	
2443.65	-9.30	-31.30	-33.30	-2.00	13.80		
2443.70	-9.30	-31.30	-33.30	-2.00	13.80		
2443.75	-9.30	-31.30	-33.30	-2.00	13.80		
2443.80	-9.30	-31.30	-33.30	-2.00	13.80	Processing Gain =	
2443.85	-9.30	-31.30	-34.30	-3.00	12.80	Mj J/S ratio + System Loss + S/N ratio.	
2443.90	-9.30	-31.30	-34.30	-3.00	12.80		
2443.95	-9.30	-31.30	-34.30	-3.00	12.80		
2444.00	-9.30	-31.30	-34.30	-3.00	12.80		
2444.05	-9.30	-31.30	-33.30	-2.00	13.80		
2444.10	-9.30	-31.30	-34.30	-3.00	12.80		
2444.15	-9.30	-31.30	-34.30	-3.00	12.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2444.20	-9.30	-31.30	-33.30	-2.00	13.80
2444.25	-9.30	-31.30	-33.30	-2.00	13.80
2444.30	-9.30	-31.30	-34.30	-3.00	12.80
2444.35	-9.30	-31.30	-34.30	-3.00	12.80
2444.40	-9.30	-31.30	-34.30	-3.00	12.80
2444.45	-9.30	-31.30	-34.30	-3.00	12.80
2444.50	-9.30	-31.30	-33.30	-2.00	13.80
2444.55	-9.30	-31.30	-32.30	-1.00	14.80
2444.60	-9.30	-31.30	-33.30	-2.00	13.80
2444.65	-9.30	-31.30	-34.30	-3.00	12.80
2444.70	-9.30	-31.30	-34.30	-3.00	12.80
2444.75	-9.30	-31.30	-33.30	-2.00	13.80
2444.80	-9.30	-31.30	-33.30	-2.00	13.80
2444.85	-9.30	-31.30	-34.30	-3.00	12.80
2444.90	-9.30	-31.30	-34.30	-3.00	12.80
2444.95	-9.30	-31.30	-34.30	-3.00	12.80
2445.00	-9.30	-31.30	-34.30	-3.00	12.80
2445.05	-9.30	-31.30	-34.30	-3.00	12.80
2445.10	-9.30	-31.30	-34.30	-3.00	12.80
2445.15	-9.30	-31.30	-34.30	-3.00	12.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2445.20	-9.30	-31.30	-34.30	-3.00	12.80	Combiner Loss	1
2445.25	-9.30	-31.30	-34.30	-3.00	12.80	Cable Loss of EUT	1
2445.30	-9.30	-31.30	-34.30	-3.00	12.80	System Loss	2
2445.35	-9.30	-31.30	-34.30	-3.00	12.80	S/N ratio	13.8
2445.40	-9.30	-31.30	-33.30	-2.00	13.80		
2445.45	-9.30	-31.30	-34.30	-3.00	12.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2445.50	-9.30	-31.30	-34.30	-3.00	12.80		
2445.55	-9.30	-31.30	-33.30	-2.00	13.80	Mj J/S ratio =	
2445.60	-9.30	-31.30	-33.30	-2.00	13.80	CW Noise - Sig. Level	
2445.65	-9.30	-31.30	-33.30	-2.00	13.80		
2445.70	-9.30	-31.30	-33.30	-2.00	13.80		
2445.75	-9.30	-31.30	-34.30	-3.00	12.80	Processing Gain =	
2445.80	-9.30	-31.30	-34.30	-3.00	12.80	Mj J/S ratio + System Loss + S/N ratio.	
2445.85	-9.30	-31.30	-34.30	-3.00	12.80		
2445.90	-9.30	-31.30	-33.30	-2.00	13.80		
2445.95	-9.30	-31.30	-33.30	-2.00	13.80		
2446.00	-9.30	-31.30	-34.30	-3.00	12.80		
2446.05	-9.30	-31.30	-34.30	-3.00	12.80		
2446.10	-9.30	-31.30	-34.30	-3.00	12.80		
2446.15	-9.30	-31.30	-34.30	-3.00	12.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2446.20	-9.30	-31.30	-34.30	-3.00	12.80
2446.25	-9.30	-31.30	-33.30	-2.00	13.80
2446.30	-9.30	-31.30	-34.30	-3.00	12.80
2446.35	-9.30	-31.30	-34.30	-3.00	12.80
2446.40	-9.30	-31.30	-34.30	-3.00	12.80
2446.45	-9.30	-31.30	-33.30	-2.00	13.80
2446.50	-9.30	-31.30	-33.30	-2.00	13.80
2446.55	-9.30	-31.30	-33.30	-2.00	13.80
2446.60	-9.30	-31.30	-33.30	-2.00	13.80
2446.65	-9.30	-31.30	-33.30	-2.00	13.80
2446.70	-9.30	-31.30	-34.30	-3.00	12.80
2446.75	-9.30	-31.30	-34.30	-3.00	12.80
2446.80	-9.30	-31.30	-34.30	-3.00	12.80
2446.85	-9.30	-31.30	-33.30	-2.00	13.80
2446.90	-9.30	-31.30	-33.30	-2.00	13.80
2446.95	-9.30	-31.30	-33.30	-2.00	13.80
2447.00	-9.30	-31.30	-33.30	-2.00	13.80
2447.05	-9.30	-31.30	-33.30	-2.00	13.80
2447.10	-9.30	-31.30	-33.30	-2.00	13.80
2447.15	-9.30	-31.30	-33.30	-2.00	13.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	
2447.20	-9.30	-31.30	-33.30	-2.00	13.80	Combiner Loss	20
2447.25	-9.30	-31.30	-32.30	-1.00	14.80	Cable Loss of EUT	1
2447.30	-9.30	-31.30	-32.30	-1.00	14.80	System Loss	1
2447.35	-9.30	-31.30	-32.30	-1.00	14.80	S/N ratio	2
2447.40	-9.30	-31.30	-32.30	-1.00	14.80		13.8
2447.45	-9.30	-31.30	-32.30	-1.00	14.80	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss of the EUT	
2447.50	-9.30	-31.30	-32.30	-1.00	14.80		
2447.55	-9.30	-31.30	-33.30	-2.00	13.80	Mj J/S ratio = CW Noise - Sig. Level	
2447.60	-9.30	-31.30	-33.30	-2.00	13.80		
2447.65	-9.30	-31.30	-32.30	-1.00	14.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2447.70	-9.30	-31.30	-32.30	-1.00	14.80		
2447.75	-9.30	-31.30	-32.30	-1.00	14.80		
2447.80	-9.30	-31.30	-31.30	0.00	15.80		
2447.85	-9.30	-31.30	-31.30	0.00	15.80		
2447.90	-9.30	-31.30	-31.30	0.00	15.80		
2447.95	-9.30	-31.30	-31.30	0.00	15.80		
2448.00	-9.30	-31.30	-31.30	0.00	15.80		
2448.05	-9.30	-31.30	-31.30	0.00	15.80		
2448.10	-9.30	-31.30	-31.30	0.00	15.80		
2448.15	-9.30	-31.30	-31.30	0.00	15.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2448.20	-9.30	-31.30	-31.30	0.00	15.80
2448.25	-9.30	-31.30	-31.30	0.00	15.80
2448.30	-9.30	-31.30	-31.30	0.00	15.80
2448.35	-9.30	-31.30	-31.30	0.00	15.80
2448.40	-9.30	-31.30	-30.30	1.00	16.80
2448.45	-9.30	-31.30	-31.30	0.00	15.80
2448.50	-9.30	-31.30	-31.30	0.00	15.80
2448.55	-9.30	-31.30	-30.30	1.00	16.80
2448.60	-9.30	-31.30	-30.30	1.00	16.80
2448.65	-9.30	-31.30	-30.30	1.00	16.80
2448.70	-9.30	-31.30	-30.30	1.00	16.80
2448.75	-9.30	-31.30	-29.30	2.00	17.80
2448.80	-9.30	-31.30	-30.30	1.00	16.80
2448.85	-9.30	-31.30	-29.30	2.00	17.80
2448.90	-9.30	-31.30	-29.30	2.00	17.80
2448.95	-9.30	-31.30	-29.30	2.00	17.80
2449.00	-9.30	-31.30	-29.30	2.00	17.80
2449.05	-9.30	-31.30	-29.30	2.00	17.80
2449.10	-9.30	-31.30	-28.30	3.00	18.80
2449.15	-9.30	-31.30	-28.30	3.00	18.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation Combiner Loss Cable Loss of EUT System Loss S/N ratio	20 1 1 2 13.8
2449.20	-9.30	-31.30	-28.30	3.00	18.80		
2449.25	-9.30	-31.30	-28.30	3.00	18.80		
2449.30	-9.30	-31.30	-27.30	4.00	19.80		
2449.35	-9.30	-31.30	-28.30	3.00	18.80		
2449.40	-9.30	-31.30	-28.30	3.00	18.80		
2449.45	-9.30	-31.30	-27.30	4.00	19.80		
2449.50	-9.30	-31.30	-27.30	4.00	19.80		
2449.55	-9.30	-31.30	-27.30	4.00	19.80		
2449.60	-9.30	-31.30	-27.30	4.00	19.80		
2449.65	-9.30	-31.30	-27.30	4.00	19.80		
2449.70	-9.30	-31.30	-27.30	4.00	19.80		
2449.75	-9.30	-31.30	-27.30	4.00	19.80		
2449.80	-9.30	-31.30	-27.30	4.00	19.80		
2449.85	-9.30	-31.30	-27.30	4.00	19.80		
2449.90	-9.30	-31.30	-27.30	4.00	19.80		
2449.95	-9.30	-31.30	-27.30	4.00	19.80		
2450.00	-9.30	-31.30	-26.30	5.00	20.80		
2450.05	-9.30	-31.30	-25.30	6.00	21.80		
2450.10	-9.30	-31.30	-26.30	5.00	20.80		
2450.15	-9.30	-31.30	-26.30	5.00	20.80		

Signal Level = TX Output - Attenuation -
Combiner Loss - Cable Loss of the EUT

Mj J/S ratio =
CW Noise - Sig. Level

Processing Gain =
Mj J/S ratio + System Loss + S/N ratio.

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2450.20	-9.30	-31.30	-26.30	5.00	20.80
2450.25	-9.30	-31.30	-26.30	5.00	20.80
2450.30	-9.30	-31.30	-26.30	5.00	20.80
2450.35	-9.30	-31.30	-26.30	5.00	20.80
2450.40	-9.30	-31.30	-26.30	5.00	20.80
2450.45	-9.30	-31.30	-25.30	6.00	21.80
2450.50	-9.30	-31.30	-24.30	7.00	22.80
2450.55	-9.30	-31.30	-24.30	7.00	22.80
2450.60	-9.30	-31.30	-23.30	8.00	23.80
2450.65	-9.30	-31.30	-24.30	7.00	22.80
2450.70	-9.30	-31.30	-24.30	7.00	22.80
2450.75	-9.30	-31.30	-23.30	8.00	23.80
2450.80	-9.30	-31.30	-23.30	8.00	23.80
2450.85	-9.30	-31.30	-23.30	8.00	23.80
2450.90	-9.30	-31.30	-23.30	8.00	23.80
2450.95	-9.30	-31.30	-22.30	9.00	24.80
2451.00	-9.30	-31.30	-22.30	9.00	24.80
2451.05	-9.30	-31.30	-22.30	9.00	24.80
2451.10	-9.30	-31.30	-22.30	9.00	24.80
2451.15	-9.30	-31.30	-21.30	10.00	25.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2451.20	-9.30	-31.30	-22.30	9.00	24.80	Combiner Loss	1
2451.25	-9.30	-31.30	-22.30	9.00	24.80	Cable Loss of EUT	1
2451.30	-9.30	-31.30	-22.30	9.00	24.80	System Loss	2
2451.35	-9.30	-31.30	-21.30	10.00	25.80	S/N ratio	13.8
2451.40	-9.30	-31.30	-22.30	9.00	24.80		
2451.45	-9.30	-31.30	-21.30	10.00	25.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2451.50	-9.30	-31.30	-21.30	10.00	25.80		
2451.55	-9.30	-31.30	-20.30	11.00	26.80		
2451.60	-9.30	-31.30	-20.30	11.00	26.80	Mj J/S ratio =	
2451.65	-9.30	-31.30	-20.30	11.00	26.80	CW Noise - Sig. Level	
2451.70	-9.30	-31.30	-20.30	11.00	26.80		
2451.75	-9.30	-31.30	-20.30	11.00	26.80		
2451.80	-9.30	-31.30	-20.30	11.00	26.80	Processing Gain =	
2451.85	-9.30	-31.30	-19.30	12.00	27.80	Mj J/S ratio + System Loss + S/N ratio.	
2451.90	-9.30	-31.30	-19.30	12.00	27.80		
2451.95	-9.30	-31.30	-19.30	12.00	27.80		
2452.00	-9.30	-31.30	-19.30	12.00	27.80		
2452.05	-9.30	-31.30	-18.30	13.00	28.80		
2452.10	-9.30	-31.30	-18.30	13.00	28.80		
2452.15	-9.30	-31.30	-18.30	13.00	28.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2452.20	-9.30	-31.30	-18.30	13.00	28.80
2452.25	-9.30	-31.30	-18.30	13.00	28.80
2452.30	-9.30	-31.30	-17.30	14.00	29.80
2452.35	-9.30	-31.30	-17.30	14.00	29.80
2452.40	-9.30	-31.30	-16.30	15.00	30.80
2452.45	-9.30	-31.30	-16.30	15.00	30.80
2452.50	-9.30	-31.30	-16.30	15.00	30.80
2452.55	-9.30	-31.30	-15.30	16.00	31.80
2452.60	-9.30	-31.30	-15.30	16.00	31.80
2452.65	-9.30	-31.30	-15.30	16.00	31.80
2452.70	-9.30	-31.30	-15.30	16.00	31.80
2452.75	-9.30	-31.30	-15.30	16.00	31.80
2452.80	-9.30	-31.30	-14.30	17.00	32.80
2452.85	-9.30	-31.30	-14.30	17.00	32.80
2452.90	-9.30	-31.30	-14.30	17.00	32.80
2452.95	-9.30	-31.30	-14.30	17.00	32.80
2453.00	-9.30	-31.30	-13.30	18.00	33.80
2453.05	-9.30	-31.30	-13.30	18.00	33.80
2453.10	-9.30	-31.30	-13.30	18.00	33.80
2453.15	-9.30	-31.30	-13.30	18.00	33.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	
2453.20	-9.30	-31.30	-12.30	19.00	34.80	Combiner Loss	20
2453.25	-9.30	-31.30	-11.30	20.00	35.80	Cable Loss of EUT	1
2453.30	-9.30	-31.30	-11.30	20.00	35.80	System Loss	1
2453.35	-9.30	-31.30	-11.30	20.00	35.80	S/N ratio	2
2453.40	-9.30	-31.30	-11.30	20.00	35.80		13.8
2453.45	-9.30	-31.30	-10.30	21.00	36.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2453.50	-9.30	-31.30	-10.30	21.00	36.80		
2453.55	-9.30	-31.30	-10.30	21.00	36.80	Mj J/S radio = CW Noise - Sig. Level	
2453.60	-9.30	-31.30	-10.30	21.00	36.80		
2453.65	-9.30	-31.30	-9.30	22.00	37.80		
2453.70	-9.30	-31.30	-8.30	23.00	38.80		

Processing Gain =

Mj J/S ratio + System Loss + S/N ratio.

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation Combiner Loss Cable Loss of EUT System Loss S/N ratio	20 1 1 2 13.8
2428.70	-9.30	-31.30	-21.30	10.00	25.80		
2428.75	-9.30	-31.30	-21.30	10.00	25.80		
2428.80	-9.30	-31.30	-21.30	10.00	25.80		
2428.85	-9.30	-31.30	-21.30	10.00	25.80		
2428.90	-9.30	-31.30	-21.30	10.00	25.80		
2428.95	-9.30	-31.30	-21.30	10.00	25.80		
2429.00	-9.30	-31.30	-22.30	9.00	24.80	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss of the EUT	
2429.05	-9.30	-31.30	-22.30	9.00	24.80		
2429.10	-9.30	-31.30	-22.30	9.00	24.80	Mj J/S ratio =	
2429.15	-9.30	-31.30	-22.30	9.00	24.80	CW Noise - Sig. Level	
2429.20	-9.30	-31.30	-22.30	9.00	24.80		
2429.25	-9.30	-31.30	-22.30	9.00	24.80		
2429.30	-9.30	-31.30	-22.30	9.00	24.80	Processing Gain =	
2429.35	-9.30	-31.30	-22.30	9.00	24.80	Mj J/S ratio + System Loss + S/N ratio.	
2429.40	-9.30	-31.30	-22.30	9.00	24.80		
2429.45	-9.30	-31.30	-22.30	9.00	24.80		
2429.50	-9.30	-31.30	-22.30	9.00	24.80		
2429.55	-9.30	-31.30	-22.30	9.00	24.80		
2429.60	-9.30	-31.30	-22.30	9.00	24.80		
2429.65	-9.30	-31.30	-23.30	8.00	23.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2429.70	-9.30	-31.30	-23.30	8.00	23.80
2429.75	-9.30	-31.30	-23.30	8.00	23.80
2429.80	-9.30	-31.30	-23.30	8.00	23.80
2429.85	-9.30	-31.30	-23.30	8.00	23.80
2429.90	-9.30	-31.30	-24.30	7.00	22.80
2429.95	-9.30	-31.30	-25.30	6.00	21.80
2430.00	-9.30	-31.30	-25.30	6.00	21.80
2430.05	-9.30	-31.30	-25.30	6.00	21.80
2430.10	-9.30	-31.30	-25.30	6.00	21.80
2430.15	-9.30	-31.30	-25.30	6.00	21.80
2430.20	-9.30	-31.30	-25.30	6.00	21.80
2430.25	-9.30	-31.30	-25.30	6.00	21.80
2430.30	-9.30	-31.30	-25.30	6.00	21.80
2430.35	-9.30	-31.30	-25.30	6.00	21.80
2430.40	-9.30	-31.30	-26.30	5.00	20.80
2430.45	-9.30	-31.30	-26.30	5.00	20.80
2430.50	-9.30	-31.30	-26.30	5.00	20.80
2430.55	-9.30	-31.30	-25.30	6.00	21.80
2430.60	-9.30	-31.30	-26.30	5.00	20.80
2430.65	-9.30	-31.30	-26.30	5.00	20.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2430.70	-9.30	-31.30	-26.30	5.00	20.80	Combiner Loss	1
2430.75	-9.30	-31.30	-26.30	5.00	20.80	Cable Loss of EUT	1
2430.80	-9.30	-31.30	-26.30	5.00	20.80	System Loss	2
2430.85	-9.30	-31.30	-26.30	5.00	20.80	S/N ratio	13.8
2430.90	-9.30	-31.30	-26.30	5.00	20.80		
2430.95	-9.30	-31.30	-26.30	5.00	20.80		
2431.00	-9.30	-31.30	-25.30	6.00	21.80	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss of the EUT	
2431.05	-9.30	-31.30	-25.30	6.00	21.80		
2431.10	-9.30	-31.30	-25.30	6.00	21.80	Mj J/S ratio =	
2431.15	-9.30	-31.30	-26.30	5.00	20.80	CW Noise - Sig. Level	
2431.20	-9.30	-31.30	-26.30	5.00	20.80		
2431.25	-9.30	-31.30	-26.30	5.00	20.80		
2431.30	-9.30	-31.30	-26.30	5.00	20.80	Processing Gain =	
2431.35	-9.30	-31.30	-26.30	5.00	20.80	Mj J/S ratio + System Loss + S/N ratio.	
2431.40	-9.30	-31.30	-26.30	5.00	20.80		
2431.45	-9.30	-31.30	-26.30	5.00	20.80		
2431.50	-9.30	-31.30	-26.30	5.00	20.80		
2431.55	-9.30	-31.30	-25.30	6.00	21.80		
2431.60	-9.30	-31.30	-26.30	5.00	20.80		
2431.65	-9.30	-31.30	-26.30	5.00	20.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2431.70	-9.30	-31.30	-27.30	4.00	19.80
2431.75	-9.30	-31.30	-27.30	4.00	19.80
2431.80	-9.30	-31.30	-28.30	3.00	18.80
2431.85	-9.30	-31.30	-28.30	3.00	18.80
2431.90	-9.30	-31.30	-28.30	3.00	18.80
2431.95	-9.30	-31.30	-29.30	2.00	17.80
2432.00	-9.30	-31.30	-29.30	2.00	17.80
2432.05	-9.30	-31.30	-29.30	2.00	17.80
2432.10	-9.30	-31.30	-29.30	2.00	17.80
2432.15	-9.30	-31.30	-29.30	2.00	17.80
2432.20	-9.30	-31.30	-29.30	2.00	17.80
2432.25	-9.30	-31.30	-29.30	2.00	17.80
2432.30	-9.30	-31.30	-29.30	2.00	17.80
2432.35	-9.30	-31.30	-28.30	3.00	18.80
2432.40	-9.30	-31.30	-28.30	3.00	18.80
2432.45	-9.30	-31.30	-28.30	3.00	18.80
2432.50	-9.30	-31.30	-29.30	2.00	17.80
2432.55	-9.30	-31.30	-29.30	2.00	17.80
2432.60	-9.30	-31.30	-29.30	2.00	17.80
2432.65	-9.30	-31.30	-29.30	2.00	17.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2432.70	-9.30	-31.30	-28.30	3.00	18.80	Combiner Loss	1
2432.75	-9.30	-31.30	-29.30	2.00	17.80	Cable Loss of EUT	1
2432.80	-9.30	-31.30	-29.30	2.00	17.80	System Loss	2
2432.85	-9.30	-31.30	-29.30	2.00	17.80	S/N ratio	13.8
2432.90	-9.30	-31.30	-29.30	2.00	17.80		
2432.95	-9.30	-31.30	-30.30	1.00	16.80	Signal Level = TX Ouput - Attenuation -	
2433.00	-9.30	-31.30	-30.30	1.00	16.80	Combiner Loss - Cable Loss of the EUT	
2433.05	-9.30	-31.30	-30.30	1.00	16.80		
2433.10	-9.30	-31.30	-30.30	1.00	16.80	Mj J/S ratio =	
2433.15	-9.30	-31.30	-29.30	2.00	17.80	CW Noise - Sig. Level	
2433.20	-9.30	-31.30	-30.30	1.00	16.80		
2433.25	-9.30	-31.30	-30.30	1.00	16.80		
2433.30	-9.30	-31.30	-30.30	1.00	16.80	Processing Gain =	
2433.35	-9.30	-31.30	-30.30	1.00	16.80	Mj J/S ratio + System Loss + S/N ratio.	
2433.40	-9.30	-31.30	-30.30	1.00	16.80		
2433.45	-9.30	-31.30	-30.30	1.00	16.80		
2433.50	-9.30	-31.30	-31.30	0.00	15.80		
2433.55	-9.30	-31.30	-31.30	0.00	15.80		
2433.60	-9.30	-31.30	-31.30	0.00	15.80		
2433.65	-9.30	-31.30	-31.30	0.00	15.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2433.70	-9.30	-31.30	-31.30	0.00	15.80
2433.75	-9.30	-31.30	-31.30	0.00	15.80
2433.80	-9.30	-31.30	-31.30	0.00	15.80
2433.85	-9.30	-31.30	-31.30	0.00	15.80
2433.90	-9.30	-31.30	-31.30	0.00	15.80
2433.95	-9.30	-31.30	-31.30	0.00	15.80
2434.00	-9.30	-31.30	-31.30	0.00	15.80
2434.05	-9.30	-31.30	-31.30	0.00	15.80
2434.10	-9.30	-31.30	-31.30	0.00	15.80
2434.15	-9.30	-31.30	-31.30	0.00	15.80
2434.20	-9.30	-31.30	-31.30	0.00	15.80
2434.25	-9.30	-31.30	-32.30	-1.00	14.80
2434.30	-9.30	-31.30	-32.30	-1.00	14.80
2434.35	-9.30	-31.30	-32.30	-1.00	14.80
2434.40	-9.30	-31.30	-32.30	-1.00	14.80
2434.45	-9.30	-31.30	-32.30	-1.00	14.80
2434.50	-9.30	-31.30	-33.30	-2.00	13.80
2434.55	-9.30	-31.30	-33.30	-2.00	13.80
2434.60	-9.30	-31.30	-33.30	-2.00	13.80
2434.65	-9.30	-31.30	-33.30	-2.00	13.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2434.70	-9.30	-31.30	-33.30	-2.00	13.80	Combiner Loss	1
2434.75	-9.30	-31.30	-32.30	-1.00	14.80	Cable Loss of EUT	1
2434.80	-9.30	-31.30	-32.30	-1.00	14.80	System Loss	2
2434.85	-9.30	-31.30	-32.30	-1.00	14.80	S/N ratio	13.8
2434.90	-9.30	-31.30	-33.30	-2.00	13.80		
2434.95	-9.30	-31.30	-33.30	-2.00	13.80	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss of the EUT	
2435.00	-9.30	-31.30	-32.30	-1.00	14.80		
2435.05	-9.30	-31.30	-32.30	-1.00	14.80	Mj J/S ratio = CW Noise - Sig. Level	
2435.10	-9.30	-31.30	-32.30	-1.00	14.80		
2435.15	-9.30	-31.30	-32.30	-1.00	14.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2435.20	-9.30	-31.30	-32.30	-1.00	14.80		
2435.25	-9.30	-31.30	-32.30	-1.00	14.80		
2435.30	-9.30	-31.30	-32.30	-1.00	14.80		
2435.35	-9.30	-31.30	-32.30	-1.00	14.80		
2435.40	-9.30	-31.30	-33.30	-2.00	13.80		
2435.45	-9.30	-31.30	-33.30	-2.00	13.80		
2435.50	-9.30	-31.30	-33.30	-2.00	13.80		
2435.55	-9.30	-31.30	-33.30	-2.00	13.80		
2435.60	-9.30	-31.30	-33.30	-2.00	13.80		
2435.65	-9.30	-31.30	-32.30	-1.00	14.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2435.70	-9.30	-31.30	-32.30	-1.00	14.80
2435.75	-9.30	-31.30	-32.30	-1.00	14.80
2435.80	-9.30	-31.30	-33.30	-2.00	13.80
2435.85	-9.30	-31.30	-33.30	-2.00	13.80
2435.90	-9.30	-31.30	-33.30	-2.00	13.80
2435.95	-9.30	-31.30	-33.30	-2.00	13.80
2436.00	-9.30	-31.30	-33.30	-2.00	13.80
2436.05	-9.30	-31.30	-33.30	-2.00	13.80
2436.10	-9.30	-31.30	-33.30	-2.00	13.80
2436.15	-9.30	-31.30	-33.30	-2.00	13.80
2436.20	-9.30	-31.30	-33.30	-2.00	13.80
2436.25	-9.30	-31.30	-33.30	-2.00	13.80
2436.30	-9.30	-31.30	-33.30	-2.00	13.80
2436.35	-9.30	-31.30	-33.30	-2.00	13.80
2436.40	-9.30	-31.30	-33.30	-2.00	13.80
2436.45	-9.30	-31.30	-34.30	-3.00	12.80
2436.50	-9.30	-31.30	-34.30	-3.00	12.80
2436.55	-9.30	-31.30	-34.30	-3.00	12.80
2436.60	-9.30	-31.30	-34.30	-3.00	12.80
2436.65	-9.30	-31.30	-34.30	-3.00	12.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2436.70	-9.30	-31.30	-34.30	-3.00	12.80	Combiner Loss	1
2436.75	-9.30	-31.30	-34.30	-3.00	12.80	Cable Loss of EUT	1
2436.80	-9.30	-31.30	-34.30	-3.00	12.80	System Loss	2
2436.85	-9.30	-31.30	-34.30	-3.00	12.80	S/N ratio	13.8
2436.90	-9.30	-31.30	-34.30	-3.00	12.80		
2436.95	-9.30	-31.30	-34.30	-3.00	12.80		
2437.00	-9.30	-31.30	-34.30	-3.00	12.80	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss of the EUT	
2437.05	-9.30	-31.30	-34.30	-3.00	12.80		
2437.10	-9.30	-31.30	-34.30	-3.00	12.80	Mj J/S ratio =	
2437.15	-9.30	-31.30	-34.30	-3.00	12.80	CW Noise - Sig. Level	
2437.20	-9.30	-31.30	-34.30	-3.00	12.80		
2437.25	-9.30	-31.30	-34.30	-3.00	12.80		
2437.30	-9.30	-31.30	-34.30	-3.00	12.80	Processing Gain =	
2437.35	-9.30	-31.30	-34.30	-3.00	12.80	Mj J/S ratio + System Loss + S/N ratio.	
2437.40	-9.30	-31.30	-34.30	-3.00	12.80		
2437.45	-9.30	-31.30	-34.30	-3.00	12.80		
2437.50	-9.30	-31.30	-34.30	-3.00	12.80		
2437.55	-9.30	-31.30	-34.30	-3.00	12.80		
2437.60	-9.30	-31.30	-34.30	-3.00	12.80		
2437.65	-9.30	-31.30	-34.30	-3.00	12.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2437.70	-9.30	-31.30	-34.30	-3.00	12.80
2437.75	-9.30	-31.30	-34.30	-3.00	12.80
2437.80	-9.30	-31.30	-34.30	-3.00	12.80
2437.85	-9.30	-31.30	-34.30	-3.00	12.80
2437.90	-9.30	-31.30	-34.30	-3.00	12.80
2437.95	-9.30	-31.30	-34.30	-3.00	12.80
2438.00	-9.30	-31.30	-34.30	-3.00	12.80
2438.05	-9.30	-31.30	-34.30	-3.00	12.80
2438.10	-9.30	-31.30	-34.30	-3.00	12.80
2438.15	-9.30	-31.30	-34.30	-3.00	12.80
2438.20	-9.30	-31.30	-34.30	-3.00	12.80
2438.25	-9.30	-31.30	-34.30	-3.00	12.80
2438.30	-9.30	-31.30	-34.30	-3.00	12.80
2438.35	-9.30	-31.30	-35.30	-4.00	11.80
2438.40	-9.30	-31.30	-35.30	-4.00	11.80
2438.45	-9.30	-31.30	-35.30	-4.00	11.80
2438.50	-9.30	-31.30	-34.30	-3.00	12.80
2438.55	-9.30	-31.30	-34.30	-3.00	12.80
2438.60	-9.30	-31.30	-34.30	-3.00	12.80
2438.65	-9.30	-31.30	-34.30	-3.00	12.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2438.70	-9.30	-31.30	-34.30	-3.00	12.80	Combiner Loss	1
2438.75	-9.30	-31.30	-34.30	-3.00	12.80	Cable Loss of EUT	1
2438.80	-9.30	-31.30	-34.30	-3.00	12.80	System Loss	2
2438.85	-9.30	-31.30	-34.30	-3.00	12.80	S/N ratio	13.8
2438.90	-9.30	-31.30	-34.30	-3.00	12.80		
2438.95	-9.30	-31.30	-34.30	-3.00	12.80	Signal Level = TX Output - Attenuation -	
2439.00	-9.30	-31.30	-34.30	-3.00	12.80	Combiner Loss - Cable Loss of the EUT	
2439.05	-9.30	-31.30	-34.30	-3.00	12.80		
2439.10	-9.30	-31.30	-35.30	-4.00	11.80	Mj J/S ratio =	
2439.15	-9.30	-31.30	-35.30	-4.00	11.80	CW Noise - Sig. Level	
2439.20	-9.30	-31.30	-35.30	-4.00	11.80		
2439.25	-9.30	-31.30	-35.30	-4.00	11.80		
2439.30	-9.30	-31.30	-35.30	-4.00	11.80	Processing Gain =	
2439.35	-9.30	-31.30	-35.30	-4.00	11.80	Mj J/S ratio + System Loss + S/N ratio.	
2439.40	-9.30	-31.30	-35.30	-4.00	11.80		
2439.45	-9.30	-31.30	-34.30	-3.00	12.80		
2439.50	-9.30	-31.30	-35.30	-4.00	11.80		
2439.55	-9.30	-31.30	-35.30	-4.00	11.80		
2439.60	-9.30	-31.30	-35.30	-4.00	11.80		
2439.65	-9.30	-31.30	-35.30	-4.00	11.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2439.70	-9.30	-31.30	-35.30	-4.00	11.80
2439.75	-9.30	-31.30	-34.30	-3.00	12.80
2439.80	-9.30	-31.30	-34.30	-3.00	12.80
2439.85	-9.30	-31.30	-34.30	-3.00	12.80
2439.90	-9.30	-31.30	-34.30	-3.00	12.80
2439.95	-9.30	-31.30	-34.30	-3.00	12.80
2440.00	-9.30	-31.30	-34.30	-3.00	12.80
2440.05	-9.30	-31.30	-34.30	-3.00	12.80
2440.10	-9.30	-31.30	-34.30	-3.00	12.80
2440.15	-9.30	-31.30	-34.30	-3.00	12.80
2440.20	-9.30	-31.30	-34.30	-3.00	12.80
2440.25	-9.30	-31.30	-33.30	-2.00	13.80
2440.30	-9.30	-31.30	-33.30	-2.00	13.80
2440.35	-9.30	-31.30	-33.30	-2.00	13.80
2440.40	-9.30	-31.30	-34.30	-3.00	12.80
2440.45	-9.30	-31.30	-34.30	-3.00	12.80
2440.50	-9.30	-31.30	-33.30	-2.00	13.80
2440.55	-9.30	-31.30	-33.30	-2.00	13.80
2440.60	-9.30	-31.30	-33.30	-2.00	13.80
2440.65	-9.30	-31.30	-33.30	-2.00	13.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2440.70	-9.30	-31.30	-33.30	-2.00	13.80	Combiner Loss	1
2440.75	-9.30	-31.30	-33.30	-2.00	13.80	Cable Loss of EUT	1
2440.80	-9.30	-31.30	-33.30	-2.00	13.80	System Loss	2
2440.85	-9.30	-31.30	-34.30	-3.00	12.80	S/N ratio	13.8
2440.90	-9.30	-31.30	-33.30	-2.00	13.80		
2440.95	-9.30	-31.30	-34.30	-3.00	12.80	Signal Level = TX Ouput - Attenuation -	
2441.00	-9.30	-31.30	-33.30	-2.00	13.80	Combiner Loss - Cable Loss of the EUT	
2441.05	-9.30	-31.30	-33.30	-2.00	13.80		
2441.10	-9.30	-31.30	-33.30	-2.00	13.80	Mj J/S radio =	
2441.15	-9.30	-31.30	-33.30	-2.00	13.80	CW Noise - Sig. Level	

Processing Gain =

Mj J/S ratio + System Loss + S/N ratio.

RadioConnect, Corporation

To: Mr. Scott McCutchan
Compatible Electronics, Inc.
July 28, 1998
Ref: 980728-AT-1
Total Pages: 31
Including This Page

From: Arthur Tanaka
Email: atanaka@radioconnect.com
Voice: 310-338-3388 x 232
Project: RadioWire
Fax 310-338-3399

Subject: Reply to FCC Response for **FCC ID: NFX-RCC0001-00**

Dear Scott,

Included with this fax is a Confidentiality Letter, copy of update to manual regarding RF safety considerations during installation, copy of manual update concerning multiple transmitters, and responses to questions posed by the FCC.

Item	FCC Report Issue	Comments
1	Confidentiality letter	See attached transmittal Ref:980728-HMF-1, Exhibit 1
2	Lower Maximum Power	The latest version of the RWM tested has a maximum output power that is about 6 dB less than the previous version. In order to meet the restricted band limits, we installed a bandpass filter and reduced the number of frequency channels to ensure compliance. The filter has 6 dB of loss which lowered our output power by 6 dB.
3	Review of RF safety	I have reviewed supplement C to OET Bulletin 65. I updated the calculations verifying compliance with the MPE limits to reflect the changes in our present configuration. We chose to keep the conservative wording in our manual. See attached update to our user's manual "RF Safety Considerations for Installation of RadioWire Modem", Exhibit 2.
4	Same information through multiple co-located transmitters.	RCC does not intend that interconnected co-located point-to-point transmitters would be used to send the same information on more than one link. RWM units are not intended to be used in this fashion. We have included a notice in our manual to our customers stating this regulation. See attached update, Exhibit 3.
5	Process Gain Test Data	See included test data, Exhibit 4.

Best regards,



Arthur Tanaka

FEDERAL COMMUNICATIONS COMMISSION
Authorization and Evaluation Division, Applications Processing Branch
7435 Oakland Mills Road, Columbia, MD 21046
Telephone: (301) 725-1585, Facsimile: (301) 344-2050
July 28, 1998

FROM: Joe Dichoso

EXTENSION: 214

TO: Scott McCutchan
ORGANIZATION: Compatible Electronics, Inc.

PHONE NUMBER: 714 579 0500

FAX NUMBER: 714 579 1850

This cover sheet is page 1 of '1' pages. Please direct inquiries to the sender at the above extension.

REFERENCE FCC ID: NFX-RCC0001-00
APPLICANT: RadioConnect Corporation

DEVICE: TX

The items indicated below or on the attachment must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 60 days from June 29, 1998 may result in application dismissal pursuant to Section 2.917(c) and forfeiture of the filing fee pursuant to Section 1.1106.

[x] The confidential letter did not list block diagram 30112, schematic 40127 and 40130 although they were labeled as confidential. Also, the photographs of the device cannot be held confidential and will have to be removed from the list. Please correct the confidential letter accordingly.

[x] Indicate why the maximum output power is now lower than what was previously tested.

[x] Review of the RF safety requirements will be reviewed once the output power is resolved. Please consider that you used some bulletin dated in 1996. Supplement C to OET Bulletin 65 has been updated recently. You should make any appropriate changes in light of the recent changes.

[x] Arthur Tanaka had indicated that it is possible to send the same information through multiple colocated transmitters. This is not allowed for point-to-point colocated transmitters. The installer will have to be informed that such configuration is prohibited.

[x] With regard to the Process Gain test, Arthur Tanaka is going to send in data showing the Jammer and Signal levels at the power meter that causes the chosen BER at the receiver. The submitted data is confusing as it appears to unnecessarily take into account the cable losses, attenuation losses etc...

EXHIBIT 1
CONFIDENTIALITY LETTER

RadioConnect Corporation

To: Mr. Scott McCutchan
Compatible Electronics, Inc.
July 28, 1998
Ref: 980728-HMF-1
Total Pages: 1
Including This Page

From: Maurice France
Email: HMFrance@radioconnect.com
Voice: 310-338-3388 x 222
Project: RadioWire
Fax 310-338-3399

Subject: FCC Request for Confidentiality Letter, FCC ID: NFX-RCC0001-00

Dear Scott,

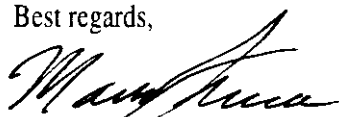
In regards to the FCC fax from Joe Dichoso dated July 28, 1998, I am including an updated table of documents to be kept confidential. Please inform the FCC to keep the following documents submitted for "FCC PART 15 APPLICATION for 2.44 GHZ RADIOWIRE MODEM MODEL:RCC0001 FCCID NFX-RCC0001-00" confidential:

Description	Dwg #	Sheets
Block Diagram, Transceiver Board	30105	1
Block Diagram, Spread Spectrum Controller	30106	1
Block Diagram, Application Processor	30107	1
Block Diagram, IF Demodulator Board	30108	1
RWM Backplane	40104	1 - 2
Transceiver Board	40105	1 - 4
Spread Spectrum Controller	40106	1 - 5
RWM Application Processor Board	40107	1 - 2
IF Demodulator	40108	1 - 5
RWM Power Supply	40111	1
Cable Assembly, WROL, 50'	70100	1 - 2
Cable Assembly, Power Supply	70109	1 - 2
Schematic, Main Board Ethernet NIM	40127	1 - 2
Schematic, Main Board Serial NIM	40130	1 - 2

The updated table includes the following changes

- Two additional schematics, drawing numbers 40127 and 40130 are added to the table.
- Block diagram 30112 is not a confidential document.
- The photographs of the device have been removed from the table

Best regards,



H. Maurice France

EXHIBIT 2

REVIEW OF RF SAFETY

RF Safety Considerations for Installation of RadioWire Modem

In 1996, the FCC adopted new guidelines for evaluating environmental effects of RF emissions. The set limits for Maximum Permissible Exposure (MPE) to RF energy in the 2.4 GHz band, where the RadioWire Modem operates, is set at 5 mW/cm² for Occupational/Controlled Exposures and 1 mW/cm² for General Population/Uncontrolled Exposure as stated in Supplement C to OET Bulletin 65. Occupational/Controlled limits apply in situations where persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control of their exposure. Uncontrolled Exposure applies to situations where the general public may be exposed and may not be fully aware of the potential for exposure or can not exercise control over their exposure.

The RadioWire Modem (RWM) should be installed by competent technical person who understands the potential for exposure and can exercise proper judgement during the installation of this product.

Radio Connect Corporation (RCC) recommends that the RWM be installed in a location where members of the general population cannot walk into the direct RF path or touch the antenna. This is necessary both to ensure a reliable connection and to avoid unnecessary exposure to RF emissions.

RCC recommends that the installation of the RadioWire Equipment is done with the equipment off to eliminate the risk of unnecessary exposure to RF energy. When fine tuning the direction of the antenna, keep your RF exposure time to a minimum if you need to place hands or other body parts in locations listed in the special cases below. Normal installation of this product is possible without exposure to RF levels in excess of MPE limits for Controlled Exposure.

With installation per RCC recommendations, the RadioWire Modem does not generate power density levels in excess of the MPE Limits for General Population/Uncontrolled Exposure. Be aware of the situations where the limits for Occupational/Controlled Exposures are approached or exceeded. These are:

- Maximum Permissible Exposure (MPE) limits for Uncontrolled Exposure is exceeded for distances closer than 11.2 cm (2.2 inches) from the helical antenna within the 35° beamwidth.
- MPE limits for Controlled Exposure is exceeded for distances closer than 5 cm (2 inches) from the helical antenna within the 35° beamwidth.
- MPE limits for Controlled Exposure can be exceeded in the area between the reflecting surface of the 0.6m dish and the actively radiating antenna.

As noted above, RCC recommends that this equipment be installed so these situations are not generally possible.

EXHIBIT 3
POINT-TO-POINT CO-LOCATED TRANSMITTERS

Operator/Installer's responsibility to comply with FCC 15.247(b)(3)(iii)

It is a violation of the FCC regulation 15.247(b)(3)(iii) to use multiple co-located wireless modems to transmit the same information. The operator or professional installers are responsible for ensuring that the system is used exclusively for fixed, point-to-point operations where co-located RWMs are used.

EXHIBIT 4

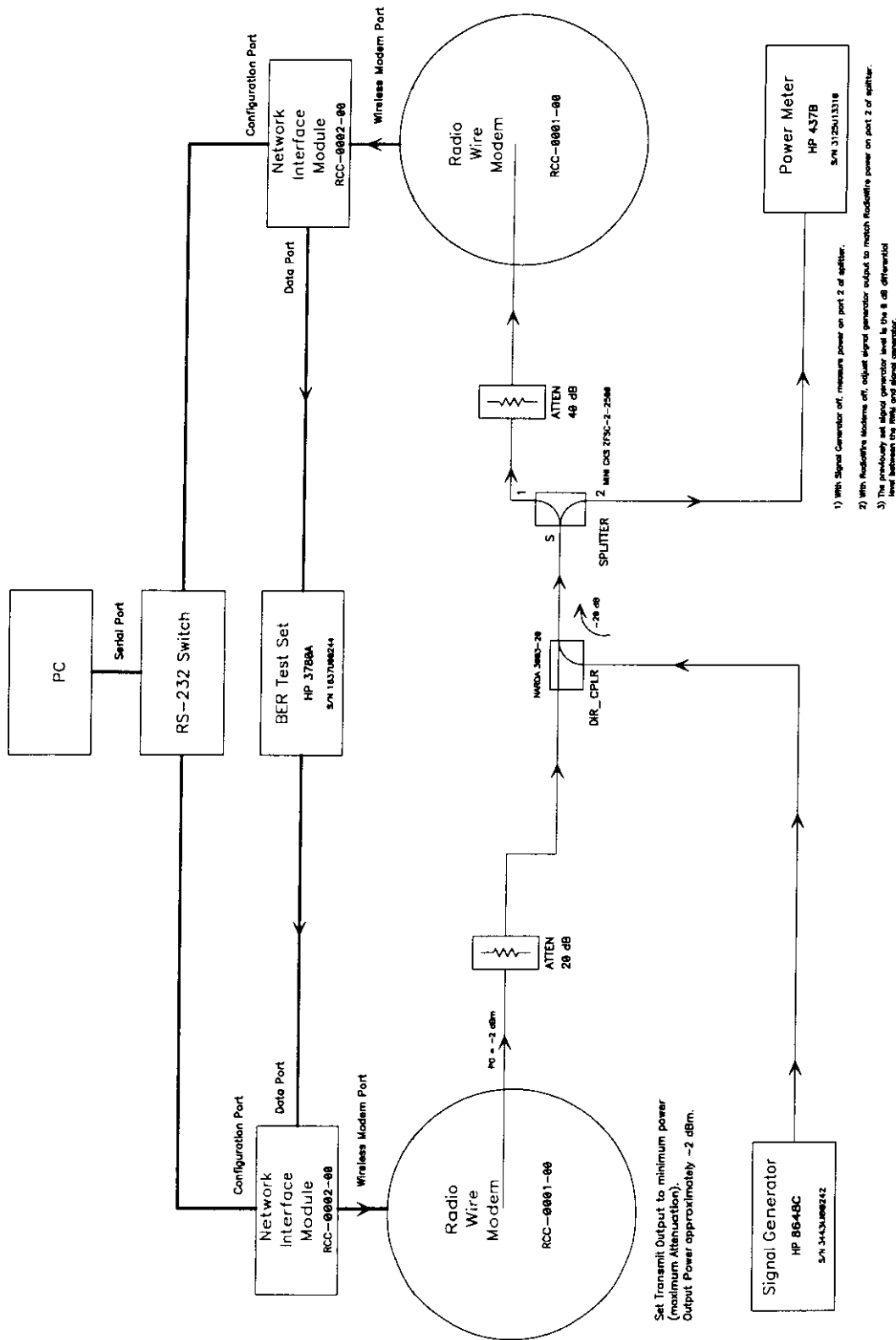
PROCESS GAIN TEST DATA

Process Gain Test Procedure

- 1) Set up process gain test fixture as shown in figure 1.
- 2) Turn off Signal Generator RF output. Turn on both RadioWire Modems (RWMs).
- 3) Measure power with Power Meter at port 2 of the RF Splitter.
- 4) Turn off RWMs and turn on Signal Generator RF output.
- 5) Set the Signal Generator frequency to match the center frequency of the RWM. Adjust the RF output of the Signal Generator to match the RF output of the RWM.
- 6) Set the attenuator readout of the Signal Generator to indicate a relative output of 0 dB. In this mode, the Signal Generator will display the Jammer level relative to the RWM signal level. If the Jammer level is 2 dB less than the RWM, -2 dB will be displayed on the Signal Generator.
- 7) Turn off the Signal Generator RF output. Turn on the RWMs and allow for synchronization.
- 8) Set Signal Generator RF output to -10 dB and slowly increase the jamming level until a bit error rate of $0.1 * 10^{-5}$ is displayed. This corresponds to an error rate of $1 * 10^{-6}$.
- 9) Log the frequency jammer level relative to the RWM level.
- 10) Increment the frequency of the Signal Generator by 50 kHz. Continue with steps 8 - 10 until the entire passband is logged.

FCC ID: NFX-RCC0001-00

Process Gain Test Setup



- 1) With Signal Generator off, measure power on port 2 of splitter.
- 2) With Radiative Modem off, adjust signal generator output to match radiative power on port 2 of splitter.
- 3) The previously set signal generator level is the 8 dB differential level between the RX and TX signal generator.

RadioConnect Corporation 6041 Bristol Parkway, Culver City, CA 90230 (310) 398-3388	
Title: Block Diagram, Process Gain Test Fixture	
Size: C	Rev: 0.1
Date: 7/7/95	Drawn by: AJT
Filename: CANIST SCH	Sheet: 1 of 1

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain		
1	2438.35	-4	11.8	Mj J/S Ratio =	Signal Gen (dBm) - RWM (dBm)
2	2438.40	-4	11.8		
3	2438.45	-4	11.8	Proc. Gain =	Mj J/S + Sys Loss + (S/N)o
4	2439.10	-4	11.8	Sys Loss =	2 dB
5	2439.15	-4	11.8	(S/N)o =	13.8 dB
6	2439.20	-4	11.8		
7	2439.25	-4	11.8	Total # of Samples	501
8	2439.30	-4	11.8	20% of Samples	100
9	2439.35	-4	11.8	Proc Gain @ #101	12.8 dB
10	2439.40	-4	11.8		
11	2439.50	-4	11.8		
12	2439.55	-4	11.8		
13	2439.60	-4	11.8		
14	2439.65	-4	11.8		
15	2439.70	-4	11.8		
16	2436.45	-3	12.8		
17	2436.50	-3	12.8		
18	2436.55	-3	12.8		
19	2436.60	-3	12.8		
20	2436.65	-3	12.8		
21	2436.70	-3	12.8		
22	2436.75	-3	12.8		
23	2436.80	-3	12.8		
24	2436.85	-3	12.8		
25	2436.90	-3	12.8		
26	2436.95	-3	12.8		
27	2437.00	-3	12.8		
28	2437.05	-3	12.8		
29	2437.10	-3	12.8		
30	2437.15	-3	12.8		
31	2437.20	-3	12.8		
32	2437.25	-3	12.8		
33	2437.30	-3	12.8		
34	2437.35	-3	12.8		
35	2437.40	-3	12.8		
36	2437.45	-3	12.8		
37	2437.50	-3	12.8		
38	2437.55	-3	12.8		
39	2437.60	-3	12.8		
40	2437.65	-3	12.8		
41	2437.70	-3	12.8		
42	2437.75	-3	12.8		
43	2437.80	-3	12.8		
44	2437.85	-3	12.8		
45	2437.90	-3	12.8		
46	2437.95	-3	12.8		
47	2438.00	-3	12.8		
48	2438.05	-3	12.8		
49	2438.10	-3	12.8		
50	2438.15	-3	12.8		
51	2438.20	-3	12.8		
52	2438.25	-3	12.8		

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
53	2438.30	-3	12.8
54	2438.50	-3	12.8
55	2438.55	-3	12.8
56	2438.60	-3	12.8
57	2438.65	-3	12.8
58	2438.70	-3	12.8
59	2438.75	-3	12.8
60	2438.80	-3	12.8
61	2438.85	-3	12.8
62	2438.90	-3	12.8
63	2438.95	-3	12.8
64	2439.00	-3	12.8
65	2439.05	-3	12.8
66	2439.45	-3	12.8
67	2439.75	-3	12.8
68	2439.80	-3	12.8
69	2439.85	-3	12.8
70	2439.90	-3	12.8
71	2439.95	-3	12.8
72	2440.00	-3	12.8
73	2440.05	-3	12.8
74	2440.10	-3	12.8
75	2440.15	-3	12.8
76	2440.20	-3	12.8
77	2440.40	-3	12.8
78	2440.45	-3	12.8
79	2440.85	-3	12.8
80	2440.95	-3	12.8
81	2443.40	-3	12.8
82	2443.50	-3	12.8
83	2443.85	-3	12.8
84	2443.90	-3	12.8
85	2443.95	-3	12.8
86	2444.00	-3	12.8
87	2444.10	-3	12.8
88	2444.15	-3	12.8
89	2444.30	-3	12.8
90	2444.35	-3	12.8
91	2444.40	-3	12.8
92	2444.45	-3	12.8
93	2444.65	-3	12.8
94	2444.70	-3	12.8
95	2444.85	-3	12.8
96	2444.90	-3	12.8
97	2444.95	-3	12.8
98	2445.00	-3	12.8
99	2445.05	-3	12.8
100	2445.10	-3	12.8
101	2445.15	-3	12.8
102	2445.20	-3	12.8
103	2445.25	-3	12.8
104	2445.30	-3	12.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
105	2445.35	-3	12.8
106	2445.45	-3	12.8
107	2445.50	-3	12.8
108	2445.75	-3	12.8
109	2445.80	-3	12.8
110	2445.85	-3	12.8
111	2446.00	-3	12.8
112	2446.05	-3	12.8
113	2446.10	-3	12.8
114	2446.15	-3	12.8
115	2446.20	-3	12.8
116	2446.30	-3	12.8
117	2446.35	-3	12.8
118	2446.40	-3	12.8
119	2446.70	-3	12.8
120	2446.75	-3	12.8
121	2446.80	-3	12.8
122	2442.90	-2.5	13.3
123	2434.50	-2	13.8
124	2434.55	-2	13.8
125	2434.60	-2	13.8
126	2434.65	-2	13.8
127	2434.70	-2	13.8
128	2434.90	-2	13.8
129	2434.95	-2	13.8
130	2435.40	-2	13.8
131	2435.45	-2	13.8
132	2435.50	-2	13.8
133	2435.55	-2	13.8
134	2435.60	-2	13.8
135	2435.80	-2	13.8
136	2435.85	-2	13.8
137	2435.90	-2	13.8
138	2435.95	-2	13.8
139	2436.00	-2	13.8
140	2436.05	-2	13.8
141	2436.10	-2	13.8
142	2436.15	-2	13.8
143	2436.20	-2	13.8
144	2436.25	-2	13.8
145	2436.30	-2	13.8
146	2436.35	-2	13.8
147	2436.40	-2	13.8
148	2440.25	-2	13.8
149	2440.30	-2	13.8
150	2440.35	-2	13.8
151	2440.50	-2	13.8
152	2440.55	-2	13.8
153	2440.60	-2	13.8
154	2440.65	-2	13.8
155	2440.70	-2	13.8
156	2440.75	-2	13.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
157	2440.80	-2	13.8
158	2440.90	-2	13.8
159	2441.00	-2	13.8
160	2441.05	-2	13.8
161	2441.10	-2	13.8
162	2441.15	-2	13.8
163	2441.25	-2	13.8
164	2441.30	-2	13.8
165	2441.35	-2	13.8
166	2442.30	-2	13.8
167	2442.40	-2	13.8
168	2442.50	-2	13.8
169	2442.55	-2	13.8
170	2442.60	-2	13.8
171	2442.85	-2	13.8
172	2442.95	-2	13.8
173	2443.00	-2	13.8
174	2443.05	-2	13.8
175	2443.10	-2	13.8
176	2443.15	-2	13.8
177	2443.20	-2	13.8
178	2443.25	-2	13.8
179	2443.30	-2	13.8
180	2443.35	-2	13.8
181	2443.45	-2	13.8
182	2443.55	-2	13.8
183	2443.60	-2	13.8
184	2443.65	-2	13.8
185	2443.70	-2	13.8
186	2443.75	-2	13.8
187	2443.80	-2	13.8
188	2444.05	-2	13.8
189	2444.20	-2	13.8
190	2444.25	-2	13.8
191	2444.50	-2	13.8
192	2444.60	-2	13.8
193	2444.75	-2	13.8
194	2444.80	-2	13.8
195	2445.40	-2	13.8
196	2445.55	-2	13.8
197	2445.60	-2	13.8
198	2445.65	-2	13.8
199	2445.70	-2	13.8
200	2445.90	-2	13.8
201	2445.95	-2	13.8
202	2446.25	-2	13.8
203	2446.45	-2	13.8
204	2446.50	-2	13.8
205	2446.55	-2	13.8
206	2446.60	-2	13.8
207	2446.65	-2	13.8
208	2446.85	-2	13.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
209	2446.90	-2	13.8
210	2446.95	-2	13.8
211	2447.00	-2	13.8
212	2447.05	-2	13.8
213	2447.10	-2	13.8
214	2447.15	-2	13.8
215	2447.20	-2	13.8
216	2447.55	-2	13.8
217	2447.60	-2	13.8
218	2434.25	-1	14.8
219	2434.30	-1	14.8
220	2434.35	-1	14.8
221	2434.40	-1	14.8
222	2434.45	-1	14.8
223	2434.75	-1	14.8
224	2434.80	-1	14.8
225	2434.85	-1	14.8
226	2435.00	-1	14.8
227	2435.05	-1	14.8
228	2435.10	-1	14.8
229	2435.15	-1	14.8
230	2435.20	-1	14.8
231	2435.25	-1	14.8
232	2435.30	-1	14.8
233	2435.35	-1	14.8
234	2435.65	-1	14.8
235	2435.70	-1	14.8
236	2435.75	-1	14.8
237	2441.20	-1	14.8
238	2441.40	-1	14.8
239	2441.45	-1	14.8
240	2441.50	-1	14.8
241	2441.55	-1	14.8
242	2441.60	-1	14.8
243	2441.65	-1	14.8
244	2441.70	-1	14.8
245	2441.75	-1	14.8
246	2441.80	-1	14.8
247	2441.85	-1	14.8
248	2441.90	-1	14.8
249	2442.00	-1	14.8
250	2442.05	-1	14.8
251	2442.10	-1	14.8
252	2442.15	-1	14.8
253	2442.20	-1	14.8
254	2442.25	-1	14.8
255	2442.35	-1	14.8
256	2442.45	-1	14.8
257	2442.65	-1	14.8
258	2442.70	-1	14.8
259	2442.75	-1	14.8
260	2442.80	-1	14.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
261	2444.55	-1	14.8
262	2447.25	-1	14.8
263	2447.30	-1	14.8
264	2447.35	-1	14.8
265	2447.40	-1	14.8
266	2447.45	-1	14.8
267	2447.50	-1	14.8
268	2447.65	-1	14.8
269	2447.70	-1	14.8
270	2447.75	-1	14.8
271	2433.50	0	15.8
272	2433.55	0	15.8
273	2433.60	0	15.8
274	2433.65	0	15.8
275	2433.70	0	15.8
276	2433.75	0	15.8
277	2433.80	0	15.8
278	2433.85	0	15.8
279	2433.90	0	15.8
280	2433.95	0	15.8
281	2434.00	0	15.8
282	2434.05	0	15.8
283	2434.10	0	15.8
284	2434.15	0	15.8
285	2434.20	0	15.8
286	2441.95	0	15.8
287	2447.80	0	15.8
288	2447.85	0	15.8
289	2447.90	0	15.8
290	2447.95	0	15.8
291	2448.00	0	15.8
292	2448.05	0	15.8
293	2448.10	0	15.8
294	2448.15	0	15.8
295	2448.20	0	15.8
296	2448.25	0	15.8
297	2448.30	0	15.8
298	2448.35	0	15.8
299	2448.45	0	15.8
300	2448.50	0	15.8
301	2432.95	1	16.8
302	2433.00	1	16.8
303	2433.05	1	16.8
304	2433.10	1	16.8
305	2433.20	1	16.8
306	2433.25	1	16.8
307	2433.30	1	16.8
308	2433.35	1	16.8
309	2433.40	1	16.8
310	2433.45	1	16.8
311	2448.40	1	16.8
312	2448.55	1	16.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
313	2448.60	1	16.8
314	2448.65	1	16.8
315	2448.70	1	16.8
316	2448.80	1	16.8
317	2431.95	2	17.8
318	2432.00	2	17.8
319	2432.05	2	17.8
320	2432.10	2	17.8
321	2432.15	2	17.8
322	2432.20	2	17.8
323	2432.25	2	17.8
324	2432.30	2	17.8
325	2432.50	2	17.8
326	2432.55	2	17.8
327	2432.60	2	17.8
328	2432.65	2	17.8
329	2432.75	2	17.8
330	2432.80	2	17.8
331	2432.85	2	17.8
332	2432.90	2	17.8
333	2433.15	2	17.8
334	2448.75	2	17.8
335	2448.85	2	17.8
336	2448.90	2	17.8
337	2448.95	2	17.8
338	2449.00	2	17.8
339	2449.05	2	17.8
340	2431.80	3	18.8
341	2431.85	3	18.8
342	2431.90	3	18.8
343	2432.35	3	18.8
344	2432.40	3	18.8
345	2432.45	3	18.8
346	2432.70	3	18.8
347	2449.10	3	18.8
348	2449.15	3	18.8
349	2449.20	3	18.8
350	2449.25	3	18.8
351	2449.35	3	18.8
352	2449.40	3	18.8
353	2431.70	4	19.8
354	2431.75	4	19.8
355	2449.30	4	19.8
356	2449.45	4	19.8
357	2449.50	4	19.8
358	2449.55	4	19.8
359	2449.60	4	19.8
360	2449.65	4	19.8
361	2449.70	4	19.8
362	2449.75	4	19.8
363	2449.80	4	19.8
364	2449.85	4	19.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
365	2449.90	4	19.8
366	2449.95	4	19.8
367	2430.40	5	20.8
368	2430.45	5	20.8
369	2430.50	5	20.8
370	2430.60	5	20.8
371	2430.65	5	20.8
372	2430.70	5	20.8
373	2430.75	5	20.8
374	2430.80	5	20.8
375	2430.85	5	20.8
376	2430.90	5	20.8
377	2430.95	5	20.8
378	2431.15	5	20.8
379	2431.20	5	20.8
380	2431.25	5	20.8
381	2431.30	5	20.8
382	2431.35	5	20.8
383	2431.40	5	20.8
384	2431.45	5	20.8
385	2431.50	5	20.8
386	2431.60	5	20.8
387	2431.65	5	20.8
388	2450.00	5	20.8
389	2450.10	5	20.8
390	2450.15	5	20.8
391	2450.20	5	20.8
392	2450.25	5	20.8
393	2450.30	5	20.8
394	2450.35	5	20.8
395	2450.40	5	20.8
396	2429.95	6	21.8
397	2430.00	6	21.8
398	2430.05	6	21.8
399	2430.10	6	21.8
400	2430.15	6	21.8
401	2430.20	6	21.8
402	2430.25	6	21.8
403	2430.30	6	21.8
404	2430.35	6	21.8
405	2430.55	6	21.8
406	2431.00	6	21.8
407	2431.05	6	21.8
408	2431.10	6	21.8
409	2431.55	6	21.8
410	2450.05	6	21.8
411	2450.45	6	21.8
412	2429.90	7	22.8
413	2450.50	7	22.8
414	2450.55	7	22.8
415	2450.65	7	22.8
416	2450.70	7	22.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
417	2429.65	8	23.8
418	2429.70	8	23.8
419	2429.75	8	23.8
420	2429.80	8	23.8
421	2429.85	8	23.8
422	2450.60	8	23.8
423	2450.75	8	23.8
424	2450.80	8	23.8
425	2450.85	8	23.8
426	2450.90	8	23.8
427	2429.00	9	24.8
428	2429.05	9	24.8
429	2429.10	9	24.8
430	2429.15	9	24.8
431	2429.20	9	24.8
432	2429.25	9	24.8
433	2429.30	9	24.8
434	2429.35	9	24.8
435	2429.40	9	24.8
436	2429.45	9	24.8
437	2429.50	9	24.8
438	2429.55	9	24.8
439	2429.60	9	24.8
440	2450.95	9	24.8
441	2451.00	9	24.8
442	2451.05	9	24.8
443	2451.10	9	24.8
444	2451.20	9	24.8
445	2451.25	9	24.8
446	2451.30	9	24.8
447	2451.40	9	24.8
448	2428.70	10	25.8
449	2428.75	10	25.8
450	2428.80	10	25.8
451	2428.85	10	25.8
452	2428.90	10	25.8
453	2428.95	10	25.8
454	2451.15	10	25.8
455	2451.35	10	25.8
456	2451.45	10	25.8
457	2451.50	10	25.8
458	2451.55	11	26.8
459	2451.60	11	26.8
460	2451.65	11	26.8
461	2451.70	11	26.8
462	2451.75	11	26.8
463	2451.80	11	26.8
464	2451.85	12	27.8
465	2451.90	12	27.8
466	2451.95	12	27.8
467	2452.00	12	27.8
468	2452.05	13	28.8

PROCESSING GAIN TEST, SORTED BY Mj J/S Ratio

Line no.	Frequency	Mj J/S Ratio	Processing Gain
469	2452.10	13	28.8
470	2452.15	13	28.8
471	2452.20	13	28.8
472	2452.25	13	28.8
473	2452.30	14	29.8
474	2452.35	14	29.8
475	2452.40	15	30.8
476	2452.45	15	30.8
477	2452.50	15	30.8
478	2452.55	16	31.8
479	2452.60	16	31.8
480	2452.65	16	31.8
481	2452.70	16	31.8
482	2452.75	16	31.8
483	2452.80	17	32.8
484	2452.85	17	32.8
485	2452.90	17	32.8
486	2452.95	17	32.8
487	2453.00	18	33.8
488	2453.05	18	33.8
489	2453.10	18	33.8
490	2453.15	18	33.8
491	2453.20	19	34.8
492	2453.25	20	35.8
493	2453.30	20	35.8
494	2453.35	20	35.8
495	2453.40	20	35.8
496	2453.45	21	36.8
497	2453.50	21	36.8
498	2453.55	21	36.8
499	2453.60	21	36.8
500	2453.65	22	37.8
501	2453.70	23	38.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
1	2428.70	10	25.8
2	2428.75	10	25.8
3	2428.80	10	25.8
4	2428.85	10	25.8
5	2428.90	10	25.8
6	2428.95	10	25.8
7	2429.00	9	24.8
8	2429.05	9	24.8
9	2429.10	9	24.8
10	2429.15	9	24.8
11	2429.20	9	24.8
12	2429.25	9	24.8
13	2429.30	9	24.8
14	2429.35	9	24.8
15	2429.40	9	24.8
16	2429.45	9	24.8
17	2429.50	9	24.8
18	2429.55	9	24.8
19	2429.60	9	24.8
20	2429.65	8	23.8
21	2429.70	8	23.8
22	2429.75	8	23.8
23	2429.80	8	23.8
24	2429.85	8	23.8
25	2429.90	7	22.8
26	2429.95	6	21.8
27	2430.00	6	21.8
28	2430.05	6	21.8
29	2430.10	6	21.8
30	2430.15	6	21.8
31	2430.20	6	21.8
32	2430.25	6	21.8
33	2430.30	6	21.8
34	2430.35	6	21.8
35	2430.40	5	20.8
36	2430.45	5	20.8
37	2430.50	5	20.8
38	2430.55	6	21.8
39	2430.60	5	20.8
40	2430.65	5	20.8
41	2430.70	5	20.8
42	2430.75	5	20.8
43	2430.80	5	20.8
44	2430.85	5	20.8
45	2430.90	5	20.8
46	2430.95	5	20.8
47	2431.00	6	21.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
48	2431.05	6	21.8
49	2431.10	6	21.8
50	2431.15	5	20.8
51	2431.20	5	20.8
52	2431.25	5	20.8
53	2431.30	5	20.8
54	2431.35	5	20.8
55	2431.40	5	20.8
56	2431.45	5	20.8
57	2431.50	5	20.8
58	2431.55	6	21.8
59	2431.60	5	20.8
60	2431.65	5	20.8
61	2431.70	4	19.8
62	2431.75	4	19.8
63	2431.80	3	18.8
64	2431.85	3	18.8
65	2431.90	3	18.8
66	2431.95	2	17.8
67	2432.00	2	17.8
68	2432.05	2	17.8
69	2432.10	2	17.8
70	2432.15	2	17.8
71	2432.20	2	17.8
72	2432.25	2	17.8
73	2432.30	2	17.8
74	2432.35	3	18.8
75	2432.40	3	18.8
76	2432.45	3	18.8
77	2432.50	2	17.8
78	2432.55	2	17.8
79	2432.60	2	17.8
80	2432.65	2	17.8
81	2432.70	3	18.8
82	2432.75	2	17.8
83	2432.80	2	17.8
84	2432.85	2	17.8
85	2432.90	2	17.8
86	2432.95	1	16.8
87	2433.00	1	16.8
88	2433.05	1	16.8
89	2433.10	1	16.8
90	2433.15	2	17.8
91	2433.20	1	16.8
92	2433.25	1	16.8
93	2433.30	1	16.8
94	2433.35	1	16.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
95	2433.40	1	16.8
96	2433.45	1	16.8
97	2433.50	0	15.8
98	2433.55	0	15.8
99	2433.60	0	15.8
100	2433.65	0	15.8
101	2433.70	0	15.8
102	2433.75	0	15.8
103	2433.80	0	15.8
104	2433.85	0	15.8
105	2433.90	0	15.8
106	2433.95	0	15.8
107	2434.00	0	15.8
108	2434.05	0	15.8
109	2434.10	0	15.8
110	2434.15	0	15.8
111	2434.20	0	15.8
112	2434.25	-1	14.8
113	2434.30	-1	14.8
114	2434.35	-1	14.8
115	2434.40	-1	14.8
116	2434.45	-1	14.8
117	2434.50	-2	13.8
118	2434.55	-2	13.8
119	2434.60	-2	13.8
120	2434.65	-2	13.8
121	2434.70	-2	13.8
122	2434.75	-1	14.8
123	2434.80	-1	14.8
124	2434.85	-1	14.8
125	2434.90	-2	13.8
126	2434.95	-2	13.8
127	2435.00	-1	14.8
128	2435.05	-1	14.8
129	2435.10	-1	14.8
130	2435.15	-1	14.8
131	2435.20	-1	14.8
132	2435.25	-1	14.8
133	2435.30	-1	14.8
134	2435.35	-1	14.8
135	2435.40	-2	13.8
136	2435.45	-2	13.8
137	2435.50	-2	13.8
138	2435.55	-2	13.8
139	2435.60	-2	13.8
140	2435.65	-1	14.8
141	2435.70	-1	14.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
142	2435.75	-1	14.8
143	2435.80	-2	13.8
144	2435.85	-2	13.8
145	2435.90	-2	13.8
146	2435.95	-2	13.8
147	2436.00	-2	13.8
148	2436.05	-2	13.8
149	2436.10	-2	13.8
150	2436.15	-2	13.8
151	2436.20	-2	13.8
152	2436.25	-2	13.8
153	2436.30	-2	13.8
154	2436.35	-2	13.8
155	2436.40	-2	13.8
156	2436.45	-3	12.8
157	2436.50	-3	12.8
158	2436.55	-3	12.8
159	2436.60	-3	12.8
160	2436.65	-3	12.8
161	2436.70	-3	12.8
162	2436.75	-3	12.8
163	2436.80	-3	12.8
164	2436.85	-3	12.8
165	2436.90	-3	12.8
166	2436.95	-3	12.8
167	2437.00	-3	12.8
168	2437.05	-3	12.8
169	2437.10	-3	12.8
170	2437.15	-3	12.8
171	2437.20	-3	12.8
172	2437.25	-3	12.8
173	2437.30	-3	12.8
174	2437.35	-3	12.8
175	2437.40	-3	12.8
176	2437.45	-3	12.8
177	2437.50	-3	12.8
178	2437.55	-3	12.8
179	2437.60	-3	12.8
180	2437.65	-3	12.8
181	2437.70	-3	12.8
182	2437.75	-3	12.8
183	2437.80	-3	12.8
184	2437.85	-3	12.8
185	2437.90	-3	12.8
186	2437.95	-3	12.8
187	2438.00	-3	12.8
188	2438.05	-3	12.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
189	2438.10	-3	12.8
190	2438.15	-3	12.8
191	2438.20	-3	12.8
192	2438.25	-3	12.8
193	2438.30	-3	12.8
194	2438.35	-4	11.8
195	2438.40	-4	11.8
196	2438.45	-4	11.8
197	2438.50	-3	12.8
198	2438.55	-3	12.8
199	2438.60	-3	12.8
200	2438.65	-3	12.8
201	2438.70	-3	12.8
202	2438.75	-3	12.8
203	2438.80	-3	12.8
204	2438.85	-3	12.8
205	2438.90	-3	12.8
206	2438.95	-3	12.8
207	2439.00	-3	12.8
208	2439.05	-3	12.8
209	2439.10	-4	11.8
210	2439.15	-4	11.8
211	2439.20	-4	11.8
212	2439.25	-4	11.8
213	2439.30	-4	11.8
214	2439.35	-4	11.8
215	2439.40	-4	11.8
216	2439.45	-3	12.8
217	2439.50	-4	11.8
218	2439.55	-4	11.8
219	2439.60	-4	11.8
220	2439.65	-4	11.8
221	2439.70	-4	11.8
222	2439.75	-3	12.8
223	2439.80	-3	12.8
224	2439.85	-3	12.8
225	2439.90	-3	12.8
226	2439.95	-3	12.8
227	2440.00	-3	12.8
228	2440.05	-3	12.8
229	2440.10	-3	12.8
230	2440.15	-3	12.8
231	2440.20	-3	12.8
232	2440.25	-2	13.8
233	2440.30	-2	13.8
234	2440.35	-2	13.8
235	2440.40	-3	12.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
236	2440.45	-3	12.8
237	2440.50	-2	13.8
238	2440.55	-2	13.8
239	2440.60	-2	13.8
240	2440.65	-2	13.8
241	2440.70	-2	13.8
242	2440.75	-2	13.8
243	2440.80	-2	13.8
244	2440.85	-3	12.8
245	2440.90	-2	13.8
246	2440.95	-3	12.8
247	2441.00	-2	13.8
248	2441.05	-2	13.8
249	2441.10	-2	13.8
250	2441.15	-2	13.8
251	2441.20	-1	14.8
252	2441.25	-2	13.8
253	2441.30	-2	13.8
254	2441.35	-2	13.8
255	2441.40	-1	14.8
256	2441.45	-1	14.8
257	2441.50	-1	14.8
258	2441.55	-1	14.8
259	2441.60	-1	14.8
260	2441.65	-1	14.8
261	2441.70	-1	14.8
262	2441.75	-1	14.8
263	2441.80	-1	14.8
264	2441.85	-1	14.8
265	2441.90	-1	14.8
266	2441.95	0	15.8
267	2442.00	-1	14.8
268	2442.05	-1	14.8
269	2442.10	-1	14.8
270	2442.15	-1	14.8
271	2442.20	-1	14.8
272	2442.25	-1	14.8
273	2442.30	-2	13.8
274	2442.35	-1	14.8
275	2442.40	-2	13.8
276	2442.45	-1	14.8
277	2442.50	-2	13.8
278	2442.55	-2	13.8
279	2442.60	-2	13.8
280	2442.65	-1	14.8
281	2442.70	-1	14.8
282	2442.75	-1	14.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
283	2442.80	-1	14.8
284	2442.85	-2	13.8
285	2442.90	-2.5	13.3
286	2442.95	-2	13.8
287	2443.00	-2	13.8
288	2443.05	-2	13.8
289	2443.10	-2	13.8
290	2443.15	-2	13.8
291	2443.20	-2	13.8
292	2443.25	-2	13.8
293	2443.30	-2	13.8
294	2443.35	-2	13.8
295	2443.40	-3	12.8
296	2443.45	-2	13.8
297	2443.50	-3	12.8
298	2443.55	-2	13.8
299	2443.60	-2	13.8
300	2443.65	-2	13.8
301	2443.70	-2	13.8
302	2443.75	-2	13.8
303	2443.80	-2	13.8
304	2443.85	-3	12.8
305	2443.90	-3	12.8
306	2443.95	-3	12.8
307	2444.00	-3	12.8
308	2444.05	-2	13.8
309	2444.10	-3	12.8
310	2444.15	-3	12.8
311	2444.20	-2	13.8
312	2444.25	-2	13.8
313	2444.30	-3	12.8
314	2444.35	-3	12.8
315	2444.40	-3	12.8
316	2444.45	-3	12.8
317	2444.50	-2	13.8
318	2444.55	-1	14.8
319	2444.60	-2	13.8
320	2444.65	-3	12.8
321	2444.70	-3	12.8
322	2444.75	-2	13.8
323	2444.80	-2	13.8
324	2444.85	-3	12.8
325	2444.90	-3	12.8
326	2444.95	-3	12.8
327	2445.00	-3	12.8
328	2445.05	-3	12.8
329	2445.10	-3	12.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
330	2445.15	-3	12.8
331	2445.20	-3	12.8
332	2445.25	-3	12.8
333	2445.30	-3	12.8
334	2445.35	-3	12.8
335	2445.40	-2	13.8
336	2445.45	-3	12.8
337	2445.50	-3	12.8
338	2445.55	-2	13.8
339	2445.60	-2	13.8
340	2445.65	-2	13.8
341	2445.70	-2	13.8
342	2445.75	-3	12.8
343	2445.80	-3	12.8
344	2445.85	-3	12.8
345	2445.90	-2	13.8
346	2445.95	-2	13.8
347	2446.00	-3	12.8
348	2446.05	-3	12.8
349	2446.10	-3	12.8
350	2446.15	-3	12.8
351	2446.20	-3	12.8
352	2446.25	-2	13.8
353	2446.30	-3	12.8
354	2446.35	-3	12.8
355	2446.40	-3	12.8
356	2446.45	-2	13.8
357	2446.50	-2	13.8
358	2446.55	-2	13.8
359	2446.60	-2	13.8
360	2446.65	-2	13.8
361	2446.70	-3	12.8
362	2446.75	-3	12.8
363	2446.80	-3	12.8
364	2446.85	-2	13.8
365	2446.90	-2	13.8
366	2446.95	-2	13.8
367	2447.00	-2	13.8
368	2447.05	-2	13.8
369	2447.10	-2	13.8
370	2447.15	-2	13.8
371	2447.20	-2	13.8
372	2447.25	-1	14.8
373	2447.30	-1	14.8
374	2447.35	-1	14.8
375	2447.40	-1	14.8
376	2447.45	-1	14.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
377	2447.50	-1	14.8
378	2447.55	-2	13.8
379	2447.60	-2	13.8
380	2447.65	-1	14.8
381	2447.70	-1	14.8
382	2447.75	-1	14.8
383	2447.80	0	15.8
384	2447.85	0	15.8
385	2447.90	0	15.8
386	2447.95	0	15.8
387	2448.00	0	15.8
388	2448.05	0	15.8
389	2448.10	0	15.8
390	2448.15	0	15.8
391	2448.20	0	15.8
392	2448.25	0	15.8
393	2448.30	0	15.8
394	2448.35	0	15.8
395	2448.40	1	16.8
396	2448.45	0	15.8
397	2448.50	0	15.8
398	2448.55	1	16.8
399	2448.60	1	16.8
400	2448.65	1	16.8
401	2448.70	1	16.8
402	2448.75	2	17.8
403	2448.80	1	16.8
404	2448.85	2	17.8
405	2448.90	2	17.8
406	2448.95	2	17.8
407	2449.00	2	17.8
408	2449.05	2	17.8
409	2449.10	3	18.8
410	2449.15	3	18.8
411	2449.20	3	18.8
412	2449.25	3	18.8
413	2449.30	4	19.8
414	2449.35	3	18.8
415	2449.40	3	18.8
416	2449.45	4	19.8
417	2449.50	4	19.8
418	2449.55	4	19.8
419	2449.60	4	19.8
420	2449.65	4	19.8
421	2449.70	4	19.8
422	2449.75	4	19.8
423	2449.80	4	19.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
424	2449.85	4	19.8
425	2449.90	4	19.8
426	2449.95	4	19.8
427	2450.00	5	20.8
428	2450.05	6	21.8
429	2450.10	5	20.8
430	2450.15	5	20.8
431	2450.20	5	20.8
432	2450.25	5	20.8
433	2450.30	5	20.8
434	2450.35	5	20.8
435	2450.40	5	20.8
436	2450.45	6	21.8
437	2450.50	7	22.8
438	2450.55	7	22.8
439	2450.60	8	23.8
440	2450.65	7	22.8
441	2450.70	7	22.8
442	2450.75	8	23.8
443	2450.80	8	23.8
444	2450.85	8	23.8
445	2450.90	8	23.8
446	2450.95	9	24.8
447	2451.00	9	24.8
448	2451.05	9	24.8
449	2451.10	9	24.8
450	2451.15	10	25.8
451	2451.20	9	24.8
452	2451.25	9	24.8
453	2451.30	9	24.8
454	2451.35	10	25.8
455	2451.40	9	24.8
456	2451.45	10	25.8
457	2451.50	10	25.8
458	2451.55	11	26.8
459	2451.60	11	26.8
460	2451.65	11	26.8
461	2451.70	11	26.8
462	2451.75	11	26.8
463	2451.80	11	26.8
464	2451.85	12	27.8
465	2451.90	12	27.8
466	2451.95	12	27.8
467	2452.00	12	27.8
468	2452.05	13	28.8
469	2452.10	13	28.8
470	2452.15	13	28.8

PROCESSING GAIN TEST, IN FREQUENCY ORDER

Line no.	Frequency	Mj J/S Ratio	Processing Gain
471	2452.20	13	28.8
472	2452.25	13	28.8
473	2452.30	14	29.8
474	2452.35	14	29.8
475	2452.40	15	30.8
476	2452.45	15	30.8
477	2452.50	15	30.8
478	2452.55	16	31.8
479	2452.60	16	31.8
480	2452.65	16	31.8
481	2452.70	16	31.8
482	2452.75	16	31.8
483	2452.80	17	32.8
484	2452.85	17	32.8
485	2452.90	17	32.8
486	2452.95	17	32.8
487	2453.00	18	33.8
488	2453.05	18	33.8
489	2453.10	18	33.8
490	2453.15	18	33.8
491	2453.20	19	34.8
492	2453.25	20	35.8
493	2453.30	20	35.8
494	2453.35	20	35.8
495	2453.40	20	35.8
496	2453.45	21	36.8
497	2453.50	21	36.8
498	2453.55	21	36.8
499	2453.60	21	36.8
500	2453.65	22	37.8
501	2453.70	23	38.8

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	
2441.20	-9.30	-31.30	-32.30	-1.00	14.80	Combiner Loss	20
2441.25	-9.30	-31.30	-33.30	-2.00	13.80	Cable Loss	1
2441.30	-9.30	-31.30	-33.30	-2.00	13.80	System Loss	1
2441.35	-9.30	-31.30	-33.30	-2.00	13.80	S/N ratio	2
2441.40	-9.30	-31.30	-32.30	-1.00	14.80		13.8
2441.45	-9.30	-31.30	-32.30	-1.00	14.80	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss of the EUT	
2441.50	-9.30	-31.30	-32.30	-1.00	14.80		
2441.55	-9.30	-31.30	-32.30	-1.00	14.80	Mj J/S ratio = CW Noise - Sig. Level	
2441.60	-9.30	-31.30	-32.30	-1.00	14.80		
2441.65	-9.30	-31.30	-32.30	-1.00	14.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2441.70	-9.30	-31.30	-32.30	-1.00	14.80		
2441.75	-9.30	-31.30	-32.30	-1.00	14.80		
2441.80	-9.30	-31.30	-32.30	-1.00	14.80		
2441.85	-9.30	-31.30	-32.30	-1.00	14.80		
2441.90	-9.30	-31.30	-32.30	-1.00	14.80		
2441.95	-9.30	-31.30	-31.30	0.00	15.80		
2442.00	-9.30	-31.30	-32.30	-1.00	14.80		
2442.05	-9.30	-31.30	-32.30	-1.00	14.80		
2442.10	-9.30	-31.30	-32.30	-1.00	14.80		
2442.15	-9.30	-31.30	-32.30	-1.00	14.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2442.20	-9.30	-31.30	-32.30	-1.00	14.80
2442.25	-9.30	-31.30	-32.30	-1.00	14.80
2442.30	-9.30	-31.30	-33.30	-2.00	13.80
2442.35	-9.30	-31.30	-32.30	-1.00	14.80
2442.40	-9.30	-31.30	-33.30	-2.00	13.80
2442.45	-9.30	-31.30	-32.30	-1.00	14.80
2442.50	-9.30	-31.30	-33.30	-2.00	13.80
2442.55	-9.30	-31.30	-33.30	-2.00	13.80
2442.60	-9.30	-31.30	-33.30	-2.00	13.80
2442.65	-9.30	-31.30	-32.30	-1.00	14.80
2442.70	-9.30	-31.30	-32.30	-1.00	14.80
2442.75	-9.30	-31.30	-32.30	-1.00	14.80
2442.80	-9.30	-31.30	-32.30	-1.00	14.80
2442.85	-9.30	-31.30	-33.30	-2.00	13.80
2442.90	-9.30	-31.30	-33.80	-2.50	13.30
2442.95	-9.30	-31.30	-33.30	-2.00	13.80
2443.00	-9.30	-31.30	-33.30	-2.00	13.80
2443.05	-9.30	-31.30	-33.30	-2.00	13.80
2443.10	-9.30	-31.30	-33.30	-2.00	13.80
2443.15	-9.30	-31.30	-33.30	-2.00	13.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2443.20	-9.30	-31.30	-33.30	-2.00	13.80	Combiner Loss	1
2443.25	-9.30	-31.30	-33.30	-2.00	13.80	Cable Loss of EUT	1
2443.30	-9.30	-31.30	-33.30	-2.00	13.80	System Loss	2
2443.35	-9.30	-31.30	-33.30	-2.00	13.80	S/N ratio	13.8
2443.40	-9.30	-31.30	-34.30	-3.00	12.80		
2443.45	-9.30	-31.30	-33.30	-2.00	13.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2443.50	-9.30	-31.30	-34.30	-3.00	12.80		
2443.55	-9.30	-31.30	-33.30	-2.00	13.80		
2443.60	-9.30	-31.30	-33.30	-2.00	13.80	Mj J/S ratio =	
2443.65	-9.30	-31.30	-33.30	-2.00	13.80	CW Noise - Sig. Level	
2443.70	-9.30	-31.30	-33.30	-2.00	13.80		
2443.75	-9.30	-31.30	-33.30	-2.00	13.80		
2443.80	-9.30	-31.30	-33.30	-2.00	13.80	Processing Gain =	
2443.85	-9.30	-31.30	-34.30	-3.00	12.80	Mj J/S ratio + System Loss + S/N ratio.	
2443.90	-9.30	-31.30	-34.30	-3.00	12.80		
2443.95	-9.30	-31.30	-34.30	-3.00	12.80		
2444.00	-9.30	-31.30	-34.30	-3.00	12.80		
2444.05	-9.30	-31.30	-33.30	-2.00	13.80		
2444.10	-9.30	-31.30	-34.30	-3.00	12.80		
2444.15	-9.30	-31.30	-34.30	-3.00	12.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2444.20	-9.30	-31.30	-33.30	-2.00	13.80
2444.25	-9.30	-31.30	-33.30	-2.00	13.80
2444.30	-9.30	-31.30	-34.30	-3.00	12.80
2444.35	-9.30	-31.30	-34.30	-3.00	12.80
2444.40	-9.30	-31.30	-34.30	-3.00	12.80
2444.45	-9.30	-31.30	-34.30	-3.00	12.80
2444.50	-9.30	-31.30	-33.30	-2.00	13.80
2444.55	-9.30	-31.30	-32.30	-1.00	14.80
2444.60	-9.30	-31.30	-33.30	-2.00	13.80
2444.65	-9.30	-31.30	-34.30	-3.00	12.80
2444.70	-9.30	-31.30	-34.30	-3.00	12.80
2444.75	-9.30	-31.30	-33.30	-2.00	13.80
2444.80	-9.30	-31.30	-33.30	-2.00	13.80
2444.85	-9.30	-31.30	-34.30	-3.00	12.80
2444.90	-9.30	-31.30	-34.30	-3.00	12.80
2444.95	-9.30	-31.30	-34.30	-3.00	12.80
2445.00	-9.30	-31.30	-34.30	-3.00	12.80
2445.05	-9.30	-31.30	-34.30	-3.00	12.80
2445.10	-9.30	-31.30	-34.30	-3.00	12.80
2445.15	-9.30	-31.30	-34.30	-3.00	12.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	LOSSES	
						Attenuation	20
2443.20	-9.30	-31.30	-33.30	-2.00	13.80	Combiner Loss	1
2443.25	-9.30	-31.30	-33.30	-2.00	13.80	Cable Loss of EUT	1
2443.30	-9.30	-31.30	-33.30	-2.00	13.80	System Loss	2
2443.35	-9.30	-31.30	-33.30	-2.00	13.80	S/N ratio	13.8
2443.40	-9.30	-31.30	-34.30	-3.00	12.80		
2443.45	-9.30	-31.30	-33.30	-2.00	13.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2443.50	-9.30	-31.30	-34.30	-3.00	12.80		
2443.55	-9.30	-31.30	-33.30	-2.00	13.80	Mj J/S ratio = CW Noise - Sig. Level	
2443.60	-9.30	-31.30	-33.30	-2.00	13.80		
2443.65	-9.30	-31.30	-33.30	-2.00	13.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2443.70	-9.30	-31.30	-33.30	-2.00	13.80		
2443.75	-9.30	-31.30	-33.30	-2.00	13.80		
2443.80	-9.30	-31.30	-33.30	-2.00	13.80		
2443.85	-9.30	-31.30	-34.30	-3.00	12.80		
2443.90	-9.30	-31.30	-34.30	-3.00	12.80		
2443.95	-9.30	-31.30	-34.30	-3.00	12.80		
2444.00	-9.30	-31.30	-34.30	-3.00	12.80		
2444.05	-9.30	-31.30	-33.30	-2.00	13.80		
2444.10	-9.30	-31.30	-34.30	-3.00	12.80		
2444.15	-9.30	-31.30	-34.30	-3.00	12.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2444.20	-9.30	-31.30	-33.30	-2.00	13.80
2444.25	-9.30	-31.30	-33.30	-2.00	13.80
2444.30	-9.30	-31.30	-34.30	-3.00	12.80
2444.35	-9.30	-31.30	-34.30	-3.00	12.80
2444.40	-9.30	-31.30	-34.30	-3.00	12.80
2444.45	-9.30	-31.30	-34.30	-3.00	12.80
2444.50	-9.30	-31.30	-33.30	-2.00	13.80
2444.55	-9.30	-31.30	-32.30	-1.00	14.80
2444.60	-9.30	-31.30	-33.30	-2.00	13.80
2444.65	-9.30	-31.30	-34.30	-3.00	12.80
2444.70	-9.30	-31.30	-34.30	-3.00	12.80
2444.75	-9.30	-31.30	-33.30	-2.00	13.80
2444.80	-9.30	-31.30	-33.30	-2.00	13.80
2444.85	-9.30	-31.30	-34.30	-3.00	12.80
2444.90	-9.30	-31.30	-34.30	-3.00	12.80
2444.95	-9.30	-31.30	-34.30	-3.00	12.80
2445.00	-9.30	-31.30	-34.30	-3.00	12.80
2445.05	-9.30	-31.30	-34.30	-3.00	12.80
2445.10	-9.30	-31.30	-34.30	-3.00	12.80
2445.15	-9.30	-31.30	-34.30	-3.00	12.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	
2445.20	-9.30	-31.30	-34.30	-3.00	12.80	Combiner Loss	20
2445.25	-9.30	-31.30	-34.30	-3.00	12.80	Cable Loss of EUT	1
2445.30	-9.30	-31.30	-34.30	-3.00	12.80	System Loss	1
2445.35	-9.30	-31.30	-34.30	-3.00	12.80	S/N ratio	2
2445.40	-9.30	-31.30	-33.30	-2.00	13.80		13.8
2445.45	-9.30	-31.30	-34.30	-3.00	12.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2445.50	-9.30	-31.30	-34.30	-3.00	12.80		
2445.55	-9.30	-31.30	-33.30	-2.00	13.80	Mj J/S ratio = CW Noise - Sig. Level	
2445.60	-9.30	-31.30	-33.30	-2.00	13.80		
2445.65	-9.30	-31.30	-33.30	-2.00	13.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2445.70	-9.30	-31.30	-33.30	-2.00	13.80		
2445.75	-9.30	-31.30	-34.30	-3.00	12.80		
2445.80	-9.30	-31.30	-34.30	-3.00	12.80		
2445.85	-9.30	-31.30	-34.30	-3.00	12.80		
2445.90	-9.30	-31.30	-33.30	-2.00	13.80		
2445.95	-9.30	-31.30	-33.30	-2.00	13.80		
2446.00	-9.30	-31.30	-34.30	-3.00	12.80		
2446.05	-9.30	-31.30	-34.30	-3.00	12.80		
2446.10	-9.30	-31.30	-34.30	-3.00	12.80		
2446.15	-9.30	-31.30	-34.30	-3.00	12.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2446.20	-9.30	-31.30	-34.30	-3.00	12.80
2446.25	-9.30	-31.30	-33.30	-2.00	13.80
2446.30	-9.30	-31.30	-34.30	-3.00	12.80
2446.35	-9.30	-31.30	-34.30	-3.00	12.80
2446.40	-9.30	-31.30	-34.30	-3.00	12.80
2446.45	-9.30	-31.30	-33.30	-2.00	13.80
2446.50	-9.30	-31.30	-33.30	-2.00	13.80
2446.55	-9.30	-31.30	-33.30	-2.00	13.80
2446.60	-9.30	-31.30	-33.30	-2.00	13.80
2446.65	-9.30	-31.30	-33.30	-2.00	13.80
2446.70	-9.30	-31.30	-34.30	-3.00	12.80
2446.75	-9.30	-31.30	-34.30	-3.00	12.80
2446.80	-9.30	-31.30	-34.30	-3.00	12.80
2446.85	-9.30	-31.30	-33.30	-2.00	13.80
2446.90	-9.30	-31.30	-33.30	-2.00	13.80
2446.95	-9.30	-31.30	-33.30	-2.00	13.80
2447.00	-9.30	-31.30	-33.30	-2.00	13.80
2447.05	-9.30	-31.30	-33.30	-2.00	13.80
2447.10	-9.30	-31.30	-33.30	-2.00	13.80
2447.15	-9.30	-31.30	-33.30	-2.00	13.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation Combiner Loss Cable Loss of EUT System Loss S/N ratio	20 1 1 2 13.8
2447.20	-9.30	-31.30	-33.30	-2.00	13.80		
2447.25	-9.30	-31.30	-32.30	-1.00	14.80		
2447.30	-9.30	-31.30	-32.30	-1.00	14.80		
2447.35	-9.30	-31.30	-32.30	-1.00	14.80		
2447.40	-9.30	-31.30	-32.30	-1.00	14.80		
2447.45	-9.30	-31.30	-32.30	-1.00	14.80	Signal Level = TX Ouput - Attenuation -	
2447.50	-9.30	-31.30	-32.30	-1.00	14.80	Combiner Loss - Cable Loss of the EUT	
2447.55	-9.30	-31.30	-33.30	-2.00	13.80		
2447.60	-9.30	-31.30	-33.30	-2.00	13.80	Mj J/S ratio =	
2447.65	-9.30	-31.30	-32.30	-1.00	14.80	CW Noise - Sig. Level	
2447.70	-9.30	-31.30	-32.30	-1.00	14.80		
2447.75	-9.30	-31.30	-32.30	-1.00	14.80		
2447.80	-9.30	-31.30	-31.30	0.00	15.80	Processing Gain =	
2447.85	-9.30	-31.30	-31.30	0.00	15.80	Mj J/S ratio + System Loss + S/N ratio.	
2447.90	-9.30	-31.30	-31.30	0.00	15.80		
2447.95	-9.30	-31.30	-31.30	0.00	15.80		
2448.00	-9.30	-31.30	-31.30	0.00	15.80		
2448.05	-9.30	-31.30	-31.30	0.00	15.80		
2448.10	-9.30	-31.30	-31.30	0.00	15.80		
2448.15	-9.30	-31.30	-31.30	0.00	15.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2448.20	-9.30	-31.30	-31.30	0.00	15.80
2448.25	-9.30	-31.30	-31.30	0.00	15.80
2448.30	-9.30	-31.30	-31.30	0.00	15.80
2448.35	-9.30	-31.30	-31.30	0.00	15.80
2448.40	-9.30	-31.30	-30.30	1.00	16.80
2448.45	-9.30	-31.30	-31.30	0.00	15.80
2448.50	-9.30	-31.30	-31.30	0.00	15.80
2448.55	-9.30	-31.30	-30.30	1.00	16.80
2448.60	-9.30	-31.30	-30.30	1.00	16.80
2448.65	-9.30	-31.30	-30.30	1.00	16.80
2448.70	-9.30	-31.30	-30.30	1.00	16.80
2448.75	-9.30	-31.30	-29.30	2.00	17.80
2448.80	-9.30	-31.30	-30.30	1.00	16.80
2448.85	-9.30	-31.30	-29.30	2.00	17.80
2448.90	-9.30	-31.30	-29.30	2.00	17.80
2448.95	-9.30	-31.30	-29.30	2.00	17.80
2449.00	-9.30	-31.30	-29.30	2.00	17.80
2449.05	-9.30	-31.30	-29.30	2.00	17.80
2449.10	-9.30	-31.30	-28.30	3.00	18.80
2449.15	-9.30	-31.30	-28.30	3.00	18.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2449.20	-9.30	-31.30	-28.30	3.00	18.80	Combiner Loss	1
2449.25	-9.30	-31.30	-28.30	3.00	18.80	Cable Loss of EUT	1
2449.30	-9.30	-31.30	-27.30	4.00	19.80	System Loss	2
2449.35	-9.30	-31.30	-28.30	3.00	18.80	S/N ratio	13.8
2449.40	-9.30	-31.30	-28.30	3.00	18.80		
2449.45	-9.30	-31.30	-27.30	4.00	19.80		
2449.50	-9.30	-31.30	-27.30	4.00	19.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2449.55	-9.30	-31.30	-27.30	4.00	19.80		
2449.60	-9.30	-31.30	-27.30	4.00	19.80	Mj J/S ratio =	
2449.65	-9.30	-31.30	-27.30	4.00	19.80	CW Noise - Sig. Level	
2449.70	-9.30	-31.30	-27.30	4.00	19.80		
2449.75	-9.30	-31.30	-27.30	4.00	19.80		
2449.80	-9.30	-31.30	-27.30	4.00	19.80	Processing Gain =	
2449.85	-9.30	-31.30	-27.30	4.00	19.80	Mj J/S ratio + System Loss + S/N ratio.	
2449.90	-9.30	-31.30	-27.30	4.00	19.80		
2449.95	-9.30	-31.30	-27.30	4.00	19.80		
2450.00	-9.30	-31.30	-26.30	5.00	20.80		
2450.05	-9.30	-31.30	-25.30	6.00	21.80		
2450.10	-9.30	-31.30	-26.30	5.00	20.80		
2450.15	-9.30	-31.30	-26.30	5.00	20.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2450.20	-9.30	-31.30	-26.30	5.00	20.80
2450.25	-9.30	-31.30	-26.30	5.00	20.80
2450.30	-9.30	-31.30	-26.30	5.00	20.80
2450.35	-9.30	-31.30	-26.30	5.00	20.80
2450.40	-9.30	-31.30	-26.30	5.00	20.80
2450.45	-9.30	-31.30	-25.30	6.00	21.80
2450.50	-9.30	-31.30	-24.30	7.00	22.80
2450.55	-9.30	-31.30	-24.30	7.00	22.80
2450.60	-9.30	-31.30	-23.30	8.00	23.80
2450.65	-9.30	-31.30	-24.30	7.00	22.80
2450.70	-9.30	-31.30	-24.30	7.00	22.80
2450.75	-9.30	-31.30	-23.30	8.00	23.80
2450.80	-9.30	-31.30	-23.30	8.00	23.80
2450.85	-9.30	-31.30	-23.30	8.00	23.80
2450.90	-9.30	-31.30	-23.30	8.00	23.80
2450.95	-9.30	-31.30	-22.30	9.00	24.80
2451.00	-9.30	-31.30	-22.30	9.00	24.80
2451.05	-9.30	-31.30	-22.30	9.00	24.80
2451.10	-9.30	-31.30	-22.30	9.00	24.80
2451.15	-9.30	-31.30	-21.30	10.00	25.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	
2451.20	-9.30	-31.30	-22.30	9.00	24.80	Combiner Loss	20
2451.25	-9.30	-31.30	-22.30	9.00	24.80	Cable Loss of EUT	1
2451.30	-9.30	-31.30	-22.30	9.00	24.80	System Loss	1
2451.35	-9.30	-31.30	-21.30	10.00	25.80	S/N ratio	2
2451.40	-9.30	-31.30	-22.30	9.00	24.80		13.8
2451.45	-9.30	-31.30	-21.30	10.00	25.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2451.50	-9.30	-31.30	-21.30	10.00	25.80		
2451.55	-9.30	-31.30	-20.30	11.00	26.80	Mj J/S ratio = CW Noise - Sig. Level	
2451.60	-9.30	-31.30	-20.30	11.00	26.80		
2451.65	-9.30	-31.30	-20.30	11.00	26.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2451.70	-9.30	-31.30	-20.30	11.00	26.80		
2451.75	-9.30	-31.30	-20.30	11.00	26.80		
2451.80	-9.30	-31.30	-20.30	11.00	26.80		
2451.85	-9.30	-31.30	-19.30	12.00	27.80		
2451.90	-9.30	-31.30	-19.30	12.00	27.80		
2451.95	-9.30	-31.30	-19.30	12.00	27.80		
2452.00	-9.30	-31.30	-19.30	12.00	27.80		
2452.05	-9.30	-31.30	-18.30	13.00	28.80		
2452.10	-9.30	-31.30	-18.30	13.00	28.80		
2452.15	-9.30	-31.30	-18.30	13.00	28.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2452.20	-9.30	-31.30	-18.30	13.00	28.80
2452.25	-9.30	-31.30	-18.30	13.00	28.80
2452.30	-9.30	-31.30	-17.30	14.00	29.80
2452.35	-9.30	-31.30	-17.30	14.00	29.80
2452.40	-9.30	-31.30	-16.30	15.00	30.80
2452.45	-9.30	-31.30	-16.30	15.00	30.80
2452.50	-9.30	-31.30	-16.30	15.00	30.80
2452.55	-9.30	-31.30	-15.30	16.00	31.80
2452.60	-9.30	-31.30	-15.30	16.00	31.80
2452.65	-9.30	-31.30	-15.30	16.00	31.80
2452.70	-9.30	-31.30	-15.30	16.00	31.80
2452.75	-9.30	-31.30	-15.30	16.00	31.80
2452.80	-9.30	-31.30	-14.30	17.00	32.80
2452.85	-9.30	-31.30	-14.30	17.00	32.80
2452.90	-9.30	-31.30	-14.30	17.00	32.80
2452.95	-9.30	-31.30	-14.30	17.00	32.80
2453.00	-9.30	-31.30	-13.30	18.00	33.80
2453.05	-9.30	-31.30	-13.30	18.00	33.80
2453.10	-9.30	-31.30	-13.30	18.00	33.80
2453.15	-9.30	-31.30	-13.30	18.00	33.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer	Transmitter	Signal	CW	Mj	Processing	Attenuation	20
Freq.	Output	Level	Noise	J/S ratio	Gain	Combiner Loss	1
(MHz)	(dBm)	(dBm)	(dBm)	(dB)	(dBm)	Cable Loss of EUT	1
2453.20	-9.30	-31.30	-12.30	19.00	34.80	System Loss	2
2453.25	-9.30	-31.30	-11.30	20.00	35.80	S/N ratio	13.8
2453.30	-9.30	-31.30	-11.30	20.00	35.80		
2453.35	-9.30	-31.30	-11.30	20.00	35.80		
2453.40	-9.30	-31.30	-11.30	20.00	35.80		
2453.45	-9.30	-31.30	-10.30	21.00	36.80	Signal Level = TX Ouput - Attenuation -	
2453.50	-9.30	-31.30	-10.30	21.00	36.80	Combiner Loss - Cable Loss of the EUT	
2453.55	-9.30	-31.30	-10.30	21.00	36.80		
2453.60	-9.30	-31.30	-10.30	21.00	36.80	Mj J/S ratio =	
2453.65	-9.30	-31.30	-9.30	22.00	37.80	CW Noise - Sig. Level	
2453.70	-9.30	-31.30	-8.30	23.00	38.80		

Processing Gain =

Mj J/S ratio + System Loss + S/N ratio.

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation Combiner Loss Cable Loss of EUT System Loss S/N ratio	20 1 1 2 13.8
2428.70	-9.30	-31.30	-21.30	10.00	25.80		
2428.75	-9.30	-31.30	-21.30	10.00	25.80		
2428.80	-9.30	-31.30	-21.30	10.00	25.80		
2428.85	-9.30	-31.30	-21.30	10.00	25.80		
2428.90	-9.30	-31.30	-21.30	10.00	25.80		
2428.95	-9.30	-31.30	-21.30	10.00	25.80	Signal Level = TX Output - Attenuation -	
2429.00	-9.30	-31.30	-22.30	9.00	24.80	Combiner Loss - Cable Loss of the EUT	
2429.05	-9.30	-31.30	-22.30	9.00	24.80		
2429.10	-9.30	-31.30	-22.30	9.00	24.80	Mj J/S ratio =	
2429.15	-9.30	-31.30	-22.30	9.00	24.80	CW Noise - Sig. Level	
2429.20	-9.30	-31.30	-22.30	9.00	24.80		
2429.25	-9.30	-31.30	-22.30	9.00	24.80		
2429.30	-9.30	-31.30	-22.30	9.00	24.80	Processing Gain =	
2429.35	-9.30	-31.30	-22.30	9.00	24.80	Mj J/S ratio + System Loss + S/N ratio.	
2429.40	-9.30	-31.30	-22.30	9.00	24.80		
2429.45	-9.30	-31.30	-22.30	9.00	24.80		
2429.50	-9.30	-31.30	-22.30	9.00	24.80		
2429.55	-9.30	-31.30	-22.30	9.00	24.80		
2429.60	-9.30	-31.30	-22.30	9.00	24.80		
2429.65	-9.30	-31.30	-23.30	8.00	23.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2429.70	-9.30	-31.30	-23.30	8.00	23.80
2429.75	-9.30	-31.30	-23.30	8.00	23.80
2429.80	-9.30	-31.30	-23.30	8.00	23.80
2429.85	-9.30	-31.30	-23.30	8.00	23.80
2429.90	-9.30	-31.30	-24.30	7.00	22.80
2429.95	-9.30	-31.30	-25.30	6.00	21.80
2430.00	-9.30	-31.30	-25.30	6.00	21.80
2430.05	-9.30	-31.30	-25.30	6.00	21.80
2430.10	-9.30	-31.30	-25.30	6.00	21.80
2430.15	-9.30	-31.30	-25.30	6.00	21.80
2430.20	-9.30	-31.30	-25.30	6.00	21.80
2430.25	-9.30	-31.30	-25.30	6.00	21.80
2430.30	-9.30	-31.30	-25.30	6.00	21.80
2430.35	-9.30	-31.30	-25.30	6.00	21.80
2430.40	-9.30	-31.30	-26.30	5.00	20.80
2430.45	-9.30	-31.30	-26.30	5.00	20.80
2430.50	-9.30	-31.30	-26.30	5.00	20.80
2430.55	-9.30	-31.30	-25.30	6.00	21.80
2430.60	-9.30	-31.30	-26.30	5.00	20.80
2430.65	-9.30	-31.30	-26.30	5.00	20.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation Combiner Loss	20
2430.70	-9.30	-31.30	-26.30	5.00	20.80	Cable Loss of EUT	1
2430.75	-9.30	-31.30	-26.30	5.00	20.80	System Loss	2
2430.80	-9.30	-31.30	-26.30	5.00	20.80	S/N ratio	13.8
2430.85	-9.30	-31.30	-26.30	5.00	20.80		
2430.90	-9.30	-31.30	-26.30	5.00	20.80		
2430.95	-9.30	-31.30	-26.30	5.00	20.80	Signal Level = TX Output - Attenuation -	
2431.00	-9.30	-31.30	-25.30	6.00	21.80	Combiner Loss - Cable Loss of the EUT	
2431.05	-9.30	-31.30	-25.30	6.00	21.80		
2431.10	-9.30	-31.30	-25.30	6.00	21.80	Mj J/S ratio =	
2431.15	-9.30	-31.30	-26.30	5.00	20.80	CW Noise - Sig. Level	
2431.20	-9.30	-31.30	-26.30	5.00	20.80		
2431.25	-9.30	-31.30	-26.30	5.00	20.80		
2431.30	-9.30	-31.30	-26.30	5.00	20.80	Processing Gain =	
2431.35	-9.30	-31.30	-26.30	5.00	20.80	Mj J/S ratio + System Loss + S/N ratio.	
2431.40	-9.30	-31.30	-26.30	5.00	20.80		
2431.45	-9.30	-31.30	-26.30	5.00	20.80		
2431.50	-9.30	-31.30	-26.30	5.00	20.80		
2431.55	-9.30	-31.30	-25.30	6.00	21.80		
2431.60	-9.30	-31.30	-26.30	5.00	20.80		
2431.65	-9.30	-31.30	-26.30	5.00	20.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2431.70	-9.30	-31.30	-27.30	4.00	19.80
2431.75	-9.30	-31.30	-27.30	4.00	19.80
2431.80	-9.30	-31.30	-28.30	3.00	18.80
2431.85	-9.30	-31.30	-28.30	3.00	18.80
2431.90	-9.30	-31.30	-28.30	3.00	18.80
2431.95	-9.30	-31.30	-29.30	2.00	17.80
2432.00	-9.30	-31.30	-29.30	2.00	17.80
2432.05	-9.30	-31.30	-29.30	2.00	17.80
2432.10	-9.30	-31.30	-29.30	2.00	17.80
2432.15	-9.30	-31.30	-29.30	2.00	17.80
2432.20	-9.30	-31.30	-29.30	2.00	17.80
2432.25	-9.30	-31.30	-29.30	2.00	17.80
2432.30	-9.30	-31.30	-29.30	2.00	17.80
2432.35	-9.30	-31.30	-28.30	3.00	18.80
2432.40	-9.30	-31.30	-28.30	3.00	18.80
2432.45	-9.30	-31.30	-28.30	3.00	18.80
2432.50	-9.30	-31.30	-29.30	2.00	17.80
2432.55	-9.30	-31.30	-29.30	2.00	17.80
2432.60	-9.30	-31.30	-29.30	2.00	17.80
2432.65	-9.30	-31.30	-29.30	2.00	17.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	
2432.70	-9.30	-31.30	-28.30	3.00	18.80	Combiner Loss	20
2432.75	-9.30	-31.30	-29.30	2.00	17.80	Cable Loss of EUT	1
2432.80	-9.30	-31.30	-29.30	2.00	17.80	System Loss	1
2432.85	-9.30	-31.30	-29.30	2.00	17.80	S/N ratio	2
2432.90	-9.30	-31.30	-29.30	2.00	17.80		13.8
2432.95	-9.30	-31.30	-30.30	1.00	16.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2433.00	-9.30	-31.30	-30.30	1.00	16.80		
2433.05	-9.30	-31.30	-30.30	1.00	16.80	Mj J/S ratio = CW Noise - Sig. Level	
2433.10	-9.30	-31.30	-30.30	1.00	16.80		
2433.15	-9.30	-31.30	-29.30	2.00	17.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2433.20	-9.30	-31.30	-30.30	1.00	16.80		
2433.25	-9.30	-31.30	-30.30	1.00	16.80		
2433.30	-9.30	-31.30	-30.30	1.00	16.80		
2433.35	-9.30	-31.30	-30.30	1.00	16.80		
2433.40	-9.30	-31.30	-30.30	1.00	16.80		
2433.45	-9.30	-31.30	-30.30	1.00	16.80		
2433.50	-9.30	-31.30	-31.30	0.00	15.80		
2433.55	-9.30	-31.30	-31.30	0.00	15.80		
2433.60	-9.30	-31.30	-31.30	0.00	15.80		
2433.65	-9.30	-31.30	-31.30	0.00	15.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2433.70	-9.30	-31.30	-31.30	0.00	15.80
2433.75	-9.30	-31.30	-31.30	0.00	15.80
2433.80	-9.30	-31.30	-31.30	0.00	15.80
2433.85	-9.30	-31.30	-31.30	0.00	15.80
2433.90	-9.30	-31.30	-31.30	0.00	15.80
2433.95	-9.30	-31.30	-31.30	0.00	15.80
2434.00	-9.30	-31.30	-31.30	0.00	15.80
2434.05	-9.30	-31.30	-31.30	0.00	15.80
2434.10	-9.30	-31.30	-31.30	0.00	15.80
2434.15	-9.30	-31.30	-31.30	0.00	15.80
2434.20	-9.30	-31.30	-31.30	0.00	15.80
2434.25	-9.30	-31.30	-32.30	-1.00	14.80
2434.30	-9.30	-31.30	-32.30	-1.00	14.80
2434.35	-9.30	-31.30	-32.30	-1.00	14.80
2434.40	-9.30	-31.30	-32.30	-1.00	14.80
2434.45	-9.30	-31.30	-32.30	-1.00	14.80
2434.50	-9.30	-31.30	-33.30	-2.00	13.80
2434.55	-9.30	-31.30	-33.30	-2.00	13.80
2434.60	-9.30	-31.30	-33.30	-2.00	13.80
2434.65	-9.30	-31.30	-33.30	-2.00	13.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	
2434.70	-9.30	-31.30	-33.30	-2.00	13.80	Combiner Loss	20
2434.75	-9.30	-31.30	-32.30	-1.00	14.80	Cable Loss of EUT	1
2434.80	-9.30	-31.30	-32.30	-1.00	14.80	System Loss	1
2434.85	-9.30	-31.30	-32.30	-1.00	14.80	S/N ratio	2
2434.90	-9.30	-31.30	-33.30	-2.00	13.80		13.8
2434.95	-9.30	-31.30	-33.30	-2.00	13.80	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss of the EUT	
2435.00	-9.30	-31.30	-32.30	-1.00	14.80		
2435.05	-9.30	-31.30	-32.30	-1.00	14.80	Mj J/S ratio = CW Noise - Sig. Level	
2435.10	-9.30	-31.30	-32.30	-1.00	14.80		
2435.15	-9.30	-31.30	-32.30	-1.00	14.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2435.20	-9.30	-31.30	-32.30	-1.00	14.80		
2435.25	-9.30	-31.30	-32.30	-1.00	14.80		
2435.30	-9.30	-31.30	-32.30	-1.00	14.80		
2435.35	-9.30	-31.30	-32.30	-1.00	14.80		
2435.40	-9.30	-31.30	-33.30	-2.00	13.80		
2435.45	-9.30	-31.30	-33.30	-2.00	13.80		
2435.50	-9.30	-31.30	-33.30	-2.00	13.80		
2435.55	-9.30	-31.30	-33.30	-2.00	13.80		
2435.60	-9.30	-31.30	-33.30	-2.00	13.80		
2435.65	-9.30	-31.30	-32.30	-1.00	14.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2435.70	-9.30	-31.30	-32.30	-1.00	14.80
2435.75	-9.30	-31.30	-32.30	-1.00	14.80
2435.80	-9.30	-31.30	-33.30	-2.00	13.80
2435.85	-9.30	-31.30	-33.30	-2.00	13.80
2435.90	-9.30	-31.30	-33.30	-2.00	13.80
2435.95	-9.30	-31.30	-33.30	-2.00	13.80
2436.00	-9.30	-31.30	-33.30	-2.00	13.80
2436.05	-9.30	-31.30	-33.30	-2.00	13.80
2436.10	-9.30	-31.30	-33.30	-2.00	13.80
2436.15	-9.30	-31.30	-33.30	-2.00	13.80
2436.20	-9.30	-31.30	-33.30	-2.00	13.80
2436.25	-9.30	-31.30	-33.30	-2.00	13.80
2436.30	-9.30	-31.30	-33.30	-2.00	13.80
2436.35	-9.30	-31.30	-33.30	-2.00	13.80
2436.40	-9.30	-31.30	-33.30	-2.00	13.80
2436.45	-9.30	-31.30	-34.30	-3.00	12.80
2436.50	-9.30	-31.30	-34.30	-3.00	12.80
2436.55	-9.30	-31.30	-34.30	-3.00	12.80
2436.60	-9.30	-31.30	-34.30	-3.00	12.80
2436.65	-9.30	-31.30	-34.30	-3.00	12.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2436.70	-9.30	-31.30	-34.30	-3.00	12.80	Combiner Loss	1
2436.75	-9.30	-31.30	-34.30	-3.00	12.80	Cable Loss of EUT	1
2436.80	-9.30	-31.30	-34.30	-3.00	12.80	System Loss	2
2436.85	-9.30	-31.30	-34.30	-3.00	12.80	S/N ratio	13.8
2436.90	-9.30	-31.30	-34.30	-3.00	12.80		
2436.95	-9.30	-31.30	-34.30	-3.00	12.80	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss of the EUT	
2437.00	-9.30	-31.30	-34.30	-3.00	12.80		
2437.05	-9.30	-31.30	-34.30	-3.00	12.80		
2437.10	-9.30	-31.30	-34.30	-3.00	12.80	Mj J/S ratio =	
2437.15	-9.30	-31.30	-34.30	-3.00	12.80	CW Noise - Sig. Level	
2437.20	-9.30	-31.30	-34.30	-3.00	12.80		
2437.25	-9.30	-31.30	-34.30	-3.00	12.80		
2437.30	-9.30	-31.30	-34.30	-3.00	12.80	Processing Gain =	
2437.35	-9.30	-31.30	-34.30	-3.00	12.80	Mj J/S ratio + System Loss + S/N ratio.	
2437.40	-9.30	-31.30	-34.30	-3.00	12.80		
2437.45	-9.30	-31.30	-34.30	-3.00	12.80		
2437.50	-9.30	-31.30	-34.30	-3.00	12.80		
2437.55	-9.30	-31.30	-34.30	-3.00	12.80		
2437.60	-9.30	-31.30	-34.30	-3.00	12.80		
2437.65	-9.30	-31.30	-34.30	-3.00	12.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2437.70	-9.30	-31.30	-34.30	-3.00	12.80
2437.75	-9.30	-31.30	-34.30	-3.00	12.80
2437.80	-9.30	-31.30	-34.30	-3.00	12.80
2437.85	-9.30	-31.30	-34.30	-3.00	12.80
2437.90	-9.30	-31.30	-34.30	-3.00	12.80
2437.95	-9.30	-31.30	-34.30	-3.00	12.80
2438.00	-9.30	-31.30	-34.30	-3.00	12.80
2438.05	-9.30	-31.30	-34.30	-3.00	12.80
2438.10	-9.30	-31.30	-34.30	-3.00	12.80
2438.15	-9.30	-31.30	-34.30	-3.00	12.80
2438.20	-9.30	-31.30	-34.30	-3.00	12.80
2438.25	-9.30	-31.30	-34.30	-3.00	12.80
2438.30	-9.30	-31.30	-34.30	-3.00	12.80
2438.35	-9.30	-31.30	-35.30	-4.00	11.80
2438.40	-9.30	-31.30	-35.30	-4.00	11.80
2438.45	-9.30	-31.30	-35.30	-4.00	11.80
2438.50	-9.30	-31.30	-34.30	-3.00	12.80
2438.55	-9.30	-31.30	-34.30	-3.00	12.80
2438.60	-9.30	-31.30	-34.30	-3.00	12.80
2438.65	-9.30	-31.30	-34.30	-3.00	12.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation Combiner Loss Cable Loss of EUT System Loss S/N ratio	20 1 1 2 13.8
2438.70	-9.30	-31.30	-34.30	-3.00	12.80		
2438.75	-9.30	-31.30	-34.30	-3.00	12.80		
2438.80	-9.30	-31.30	-34.30	-3.00	12.80		
2438.85	-9.30	-31.30	-34.30	-3.00	12.80		
2438.90	-9.30	-31.30	-34.30	-3.00	12.80		
2438.95	-9.30	-31.30	-34.30	-3.00	12.80		
2439.00	-9.30	-31.30	-34.30	-3.00	12.80	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss of the EUT	
2439.05	-9.30	-31.30	-34.30	-3.00	12.80		
2439.10	-9.30	-31.30	-35.30	-4.00	11.80	Mj J/S ratio =	
2439.15	-9.30	-31.30	-35.30	-4.00	11.80	CW Noise - Sig. Level	
2439.20	-9.30	-31.30	-35.30	-4.00	11.80		
2439.25	-9.30	-31.30	-35.30	-4.00	11.80		
2439.30	-9.30	-31.30	-35.30	-4.00	11.80	Processing Gain =	
2439.35	-9.30	-31.30	-35.30	-4.00	11.80	Mj J/S ratio + System Loss + S/N ratio.	
2439.40	-9.30	-31.30	-35.30	-4.00	11.80		
2439.45	-9.30	-31.30	-34.30	-3.00	12.80		
2439.50	-9.30	-31.30	-35.30	-4.00	11.80		
2439.55	-9.30	-31.30	-35.30	-4.00	11.80		
2439.60	-9.30	-31.30	-35.30	-4.00	11.80		
2439.65	-9.30	-31.30	-35.30	-4.00	11.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2439.70	-9.30	-31.30	-35.30	-4.00	11.80
2439.75	-9.30	-31.30	-34.30	-3.00	12.80
2439.80	-9.30	-31.30	-34.30	-3.00	12.80
2439.85	-9.30	-31.30	-34.30	-3.00	12.80
2439.90	-9.30	-31.30	-34.30	-3.00	12.80
2439.95	-9.30	-31.30	-34.30	-3.00	12.80
2440.00	-9.30	-31.30	-34.30	-3.00	12.80
2440.05	-9.30	-31.30	-34.30	-3.00	12.80
2440.10	-9.30	-31.30	-34.30	-3.00	12.80
2440.15	-9.30	-31.30	-34.30	-3.00	12.80
2440.20	-9.30	-31.30	-34.30	-3.00	12.80
2440.25	-9.30	-31.30	-33.30	-2.00	13.80
2440.30	-9.30	-31.30	-33.30	-2.00	13.80
2440.35	-9.30	-31.30	-33.30	-2.00	13.80
2440.40	-9.30	-31.30	-34.30	-3.00	12.80
2440.45	-9.30	-31.30	-34.30	-3.00	12.80
2440.50	-9.30	-31.30	-33.30	-2.00	13.80
2440.55	-9.30	-31.30	-33.30	-2.00	13.80
2440.60	-9.30	-31.30	-33.30	-2.00	13.80
2440.65	-9.30	-31.30	-33.30	-2.00	13.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
						Combiner Loss	1
						Cable Loss of EUT	1
						System Loss	2
						S/N ratio	13.8
2440.70	-9.30	-31.30	-33.30	-2.00	13.80		
2440.75	-9.30	-31.30	-33.30	-2.00	13.80		
2440.80	-9.30	-31.30	-33.30	-2.00	13.80		
2440.85	-9.30	-31.30	-34.30	-3.00	12.80		
2440.90	-9.30	-31.30	-33.30	-2.00	13.80		
2440.95	-9.30	-31.30	-34.30	-3.00	12.80	Signal Level = TX Ouput - Attenuation -	
2441.00	-9.30	-31.30	-33.30	-2.00	13.80	Combiner Loss - Cable Loss of the EUT	
2441.05	-9.30	-31.30	-33.30	-2.00	13.80		
2441.10	-9.30	-31.30	-33.30	-2.00	13.80	Mj J/S ratio =	
2441.15	-9.30	-31.30	-33.30	-2.00	13.80	CW Noise - Sig. Level	

Processing Gain =

Mj J/S ratio + System Loss + S/N ratio.



EXHIBIT 3

BANDWIDTH PROBLEM WITH OUTPUT MEASUREMENT

RADIO CONNECT CORPORATION**2.44 GHZ RADIOWIRE MODEM****M/N: RCC0001****POWER OUTPUT WITH POWER METER**

CHANNEL NUMBER	POWER OUTPUT (dBm)
1	16.73
2	18.00
3	17.40

Test Equipment for Power Output test

EQUIPMENT TYPE	MANU- FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
Power Meter	Hewlett Packard	436A	2236A15362	June 17, 1998	1 Year
Power Sensor	Hewlett-Packard	8482H	GG00000006	June 18, 1998	1 Year



EXHIBIT 6

2.4835 GHZ TO 2.5 GHZ RESTRICTED BAND

RADIATED EMISSIONS

COMPANY NAME: Rapid Connect Corporation **DATE:** 7-11-98

EUT: 2.44 GHz RANDOM RE MODEM EUT S/N:

EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3M LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN **POLARIZATION:** ☐ VERT ☒ HORIZ

■ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: KYLE F.

NOTES: HIGH CHANNEL
(CH₁ 3)

HELICAL	BACKFIRE	CIRCULAR	POLARIZED
0.6 M	PARABOLIC	REACTOR	T-COM

[illegible]

* **CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN**

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600

RADIATED EMISSIONS

COMPANY NAME: Radio Connect Convention DATE: 7-11-98

EUT: 2.44 GHz RADIO WIRE MODEM EUT S/N:

EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3M LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN **POLARIZATION:** ☒ VERT ☐ HORIZ

■ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: KYLE F.

NOTES: HIGH CHANNELS
(CH₁ & 3)

HELICAL BACKFIRE CIRCULAR POLARIZED
0.6M PARABOLIC REFLECTOR T COM

[illegible]

* **CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN**

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600

RADIATED EMISSIONS

COMPANY NAME: RACIOCONNECT CORPORATION DATE: 7-11-98

EUT: 2.44 GHz Radio Frequency Modem **EUT S/N:**

EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3M LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN

POLARIZATION: ☒ VERT ☐ HORIZ

☒ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT

ENGINEER: Kyle F.

NOTES: LOW CHANNEL
(CH. 1)

HELICAL BACKFIRE CIRCULAR POLARIZED
0.6 M PARABOLIC REFLECTOR T-COM

[illegible]

* **CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN**

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600

RADIATED EMISSIONS

COMPANY NAME: RadioConnect Corporation

DATE: 7-11-98

EUT: 2.47 GHz Radio Modem

EUT S/N:

EUT MODEL: RCC 0001

LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247

CLASS:

TEST DISTANCE: 3M

LAB: 1

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN

POLARIZATION: ☐ VERT ☒ HORIZ

☒ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT**ENGINEER:**

NOTES: Low Channel
(Ch. 1)

HELICAL BACKFIRE CIRCULAR
POLARIZED 0.16M PARABOLIC REFLECTOR
T-COM

[illegible]

* **CORRECTED READING** = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = CORRECTED READING - SPECIFICATION LIMIT

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600



RADIATED EMISSIONS

COMPANY NAME: RADIOCONNECT CORPORATION DATE: 7-11-98EUT: 2.44 GHz RADIOWARE MODEM EUT S/N: _____EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURASPECIFICATION: FCC 15.247 CLASS: _____ TEST DISTANCE: 3M LAB: DANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORNPOLARIZATION: ☒ VERT ☐ HORIZ☒ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDITENGINEER: KYLE F.NOTES: MEDIUM CHANNEL
(CH. 2)HELICAL BACKFIRE CIRCULAR
POLARIZED 0.6M PARABOLIC REFLECTOR
T-COM

Frequency (GHz)	Peak Reading (dBuV)	Average Reading (dBuV)	Antenna Height (meters)	Azimuth (degrees)	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	* Corrected Reading (dBuV)	Delta ** (dB)	Spec Limit (dBuV)
2.431	123.9	116.9	1.0	0	28.2	5.5	32.7	117.9		
2.4835				No	Emission	FOUND				
4.869	41.3	34.3	1.0	0	32.3	10.3	31.6	45.3	-8.7	54.0

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = CORRECTED READING - SPECIFICATION LIMIT

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600

RADIATED EMISSIONS

COMPANY NAME: RADIO CONNECT CORPORATION **DATE:** 7-11-98

EUT: 2.44 GHz RADIONIC Modem EUT S/N:

EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3M LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN **POLARIZATION:** ☒ VERT ☐ HORIZ

■ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: Kyle F.

NOTES: HIGH CHANNEL (CH.3)

CIRCULAR POLARIZED HELICAL
T-COM

[illegible]

* **CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS • AMPLIFIER GAIN**

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600

RADIATED EMISSIONS

COMPANY NAME: Radio Shack Corporation DATE: 7-11-98

EUT: 2.74 GHz RADIOWIRE MODER EUT S/N:

EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: _____ TEST DISTANCE: 3M LAB: 11

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN

POLARIZATION: ☐ VERT ☒ HORIZ

☐ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT

ENGINEER: Kyle F.

NOTES: Low Channel (Ch. 1)

CIRCULAR POLARIZED HORIZONTAL
T-COM

[illegible]

* **CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN**

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600

RADIATED EMISSIONS

COMPANY NAME: RADIO CONNECT CORPORATION

DATE: 7-11-98

EUT: 2.44 GHz RadioWire Modem

EUT S/N:

EUT MODEL: *RCC 0001*

LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247

CLASS:

TEST DISTANCE:

3M

LARS

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN

POLARIZATION: ☐ VERT ☒ HORIZ

☒ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT

ENGINEER: *Kyle F.*

NOTES: MEDIUM CHANNEL (CH. 2)

CIRCULAR POLARIZED HELICAL
T-COM

[illegible]

• **CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN**

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600

SPECTRAL DENSITY OUTPUT OF CH. 1
REF 20.0 dBm ATTEN 30 dB
MKR 2.415 595 GHz
1.90 dBm

10 dB/

10 dB/

MARKER

2.415 595 GHz

1.90 dBm

DL
8.0
dBm

CORR'D

CENTER 2.414 33 GHz
RES BW 3 KHZ

SPAN 5.00 MHz
SWP 1.50 Ksec

VBW 10 KHZ

FCC ID: NFX-RCC0001-00

SPECTRAL DENSITY OUTPUT OF CH. 3
MKR 2.441 195 GHz
REF 30.0 dBm ATTN 40 dB
-2.70 dBm

HP

10 dB/

*

MARKER

2.441 195 GHz

-2.70 dBm

DL
8.0
dBm

FCC ID: NFX-RCC0001-00

CORR'D

CENTER 2.441 34 GHz
RES BW 3 KHz

VBW 10 KHz

SPAN 5.00 MHz
SWP 1.50 Ksec

BANDWIDTH OF CH. 2
REF 20.0 dBm
ATTEN 50 dB

MKR Δ 12.80 MHz
0.00 dB

10 dB/

-6dB

-6dB

MARKER Δ
12.80 MHz
0.00 dB

DL
-20.0
dBm

FCC ID: NFX-RCC0001-00

CORR'D

CENTER 2.428 1 GHz
RES BW 100 kHz

VBW 300 kHz

SPAN 50.0 MHz
SWP 20.0 msec

SPECTRAL DENSITY OUTPUT OF CH. 2
REF 30.0 dBm ATTEN 40 dB
MKR 2.428 394 GHz
0.20 dBm

10 dB

10 dB

MARKER
2.428 394 GHz
0.20 dBm

DL
8.0
dBm

CORR'D

CENTER 2.428 36 GHz
RES BW 3 kHz

VBW 10 kHz

SPAN 5.00 MHz
SWP 1.50 kHz

FCC ID: NFX-RCC0001-00

RF ANT. COND. OF CH. 2 2MHZ - 20HZ
REF 30.0 dBm ATTN 40 dB

MKR 360 MHz
-42.70 dBm

10 dB/

10 dB/

DL
11.0
dBm

MARKER
360 MHz
-42.70 dBm

FCC ID: NFX-RCC0001-00

CORR'D



START 2 MHz

RES BW 100 KHz

VBW 300 KHz

STOP 2.00 GHz

SWP 599 msec

RF ANT. COND. TEST OF CH. 2 2GHz-10GHz MKR 2.432 GHz
REF 20.0 dBm ATTN 40 dB 9.00 dBm

10 dB

10 dB

FCC ID: NFX-RCC0001-00

MARKER

2.432 GHz

9.00 dBm

DL

-11.0

dBm

not for use as a reference signal for the purpose of the test

CORR'D

START 2.00 GHz RES BW 100 KHz VBW 300 KHz STOP 10.00 GHz
SWP 2.40 sec

RF ANT. COND. TEST OF CH.2 10GHz - 20GHz MKR 19.86 GHz
REF 20.0 dBm ATTN 40 dB -30.90 dBm

177

10 dB/

*

MARKER

19.86 GHz

-30.90 dBm

DL

-11.0

dBm

CORR'D

FCC ID: NFX-RCC0001-00

START 10.0 GHz

RES BW 100 KHz

VBW 300 KHz

STOP 20.0 GHz

SWP 3.00 sec

RF ANT. COND. TEST OF CH. 2 20GHz - 26GHz MKR 24.770 GHz
REF -12.0 dBm HARMONIC BL -58.90 dBm

140

10 dB/

CNVLOSS

22.0

dB

DL

-11.1

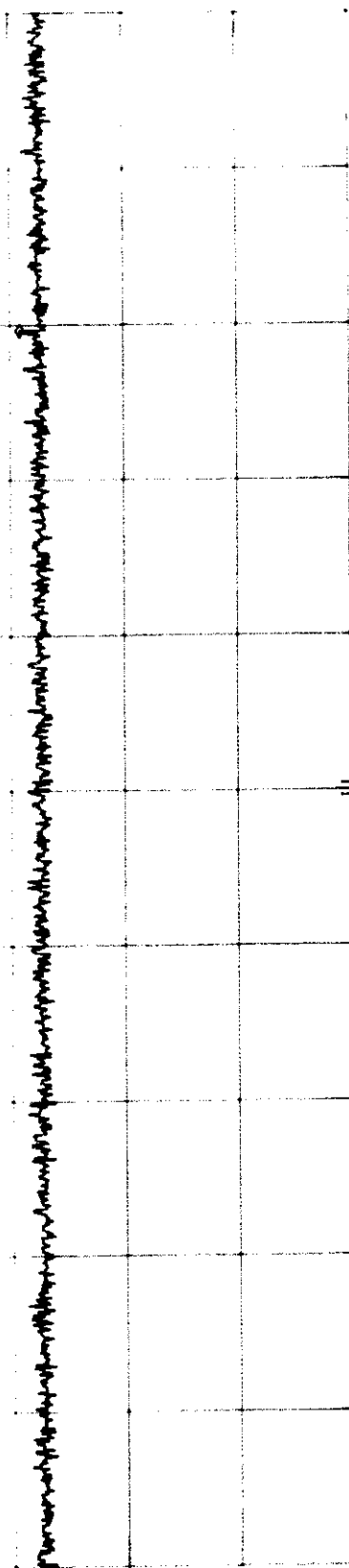
dBm

MARKER

24.770 GHz

-58.90 dBm

FCC ID: NFX-RCC0001-00



START 20.00 GHz

RES BW 1 MHz

VBW 3 MHz

STOP 26.00 GHz

SWP 150 msec

MODIFICATION TO THE EUT

The modification listed below was made to the EUT.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

Modification:

- 1) Replaced the band pass filter in series with F5 and the proprietary antenna connector with an Inter-Digital filter (RadioConnect P/N: 5001).



EXHIBIT 7
PROCESSING GAIN

FCC ID: NFX-RCC0001-00
RadioConnect Corporation

To:	Mr. Scott McCutchan Compatible Electronics, Inc.	July 10, 1998 Ref: 980702-AT-1 Total Pages: 1
From:	Arthur Tanaka	
Email:	atanaka@radioconnect.com	Voice: 310-338-3388 x 232
Project:	RadioWire	
Subject:	Replay to FCC Response for FCC ID: NFX-RCC0001-00	

Dear Scott,

Included with this fax is a Confidentiality Letter, Block Diagrams, copy of update to manual regarding RF safety considerations during installation, and responses to questions posed by the FCC in your letter dated June 30, 1998.

- 1) Confidentiality letter. See attached transmittal Exhibit 1, Ref: 980702-HMF-1 that lists the items to be held confidential.
- 2) Block diagram. Please see attached block diagrams in Exhibit 2. The Block Diagrams included with the application were in the middle of the set of schematics, and could have been mistaken for schematics.
- 3) Re-measure power Yes, we agree that the power can be re-measured. A power meter will be available for use on Monday.
- 4) Installation instructions See attached update to our user's manual "RF Safety Considerations for Installation of RadioWire Modem".
- 5) Star Networks
The RadioWire Modem (RWM) does not operate in the Point-Multipoint mode. It can only operate Point-To-Point. We provide the ability for users to configure and connect sets of point-to-point links to provide a star function. Users do this by connecting the Network Interface Modules of several RWMs at a central node. Each RWM at the central node communicates with only one remote RWM.

The antenna in question is a helical antenna operating in the axial mode yielding a directional gain of 14 dBi with a beamwidth of 35°. See attached antenna manufacturer's drawing (Tecom #703306). Also see attached table of antennas.
- 6) Restricted Band We will be testing a solution for this problem Saturday, July 11th.
- 7) Processing Gain On 7/6/98 we repeated the Process Gain test using 50 kHz steps across the entire passband of the RWM channel, using the method suggested in the FCC Public Notice #54797 dated July 12, 1995. See the Jamming Test Setup diagram. Also included is a copy of a table from Electronic Communications Handbook by Andrew F. Inglis, McGraw Hill © 1988 showing QPSK and OQPSK with the same (S/N)₀. Also included is a graph showing the (S/N)₀ for QPSK as 13.8 dB for an error rate of 10⁻⁶ from Digital Line-Of-Sight Radio Links book by A.A.R. Townsend, Prentice Hall © 1988.

Best regards,

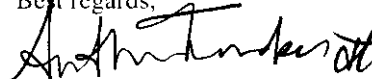

Arthur Tanaka

TABLE 11.1 Ideal Performance of Representative Modulation Methods

Modulation method	E_b/N_0 , dB*
Amplitude-shift keying	
OOK—coherent detection	11.4
OOK—envelope detection	11.9
Frequency-shift keying	
FSK—noncoherent detection ($d = 1$)	12.5
CP-FSK—coherent detection ($d = 0.7$)	7.4†
CP-FSK—noncoherent detection ($d = 0.7$)	9.2†
MSK ($d = 0.5$)	8.4
MSK—differential encoding ($d = 0.5$)	9.4
Phase-shift keying	
BPSK coherent detection	8.4
DE-BPSK	8.9
DPSK	9.3
QPSK	8.4—
DQPSK	10.7
OK-QPSK	8.4—
8-ary PSK coherent detection	11.8
16-ary PSK coherent detection	16.2
QAM	
16-ary QAM	12.4

*Required for a bit error rate of 10^{-4} .

†For a three-bit observation interval.

(Source: Oetting, J.D., "A Comparison of Modulation Techniques for Digital Radio," *IEEE Transactions on Communications*, vol. 23, no. 12, December 1979.)

Because of the severe effects of this degree of fading, a required bit rate of 10^{-2} is assumed in this table. This error rate is high for most digital radio applications, but error-control coding could be used to achieve a satisfactory result. Since the values in Table 11.4 are a weighted average of the ideal performance figures, the relative performance of the various methods does not differ markedly from that indicated in Table 11.1.

Cost and Complexity. The relative costs of the various modulation methods for a specific communication system cannot be evaluated accurately without conducting a full-scale investigation of the tradeoffs involved for the various options. Nevertheless, the modulation methods can be ranked according to their relative complexity, and this provides the basis for an initial estimate of their relative costs. This ranking is shown in Fig. 11.14.

SPREAD-SPECTRUM MODULATION TECHNIQUES

22. Introduction

Spread-spectrum systems are characterized by transmission bandwidths that are much wider than the minimum required to transmit the information. The large

TABLE 11.2 Signal Speed

Modulation method
OOK—coherent detection
FSK—noncoherent detection ($d = 1$)
CP-FSK—noncoherent detection ($d = 0.7$)
MSK ($d = 0.5$)
MSK—differential encoding ($d = 0.5$)
BPSK—coherent detection
DE-BPSK
DPSK
QPSK
DQPSK
8-ary PSK—coherent detection
16-ary PSK—coherent detection
16-ary QAM

*Required for a bit error rate of 10^{-4} .

†Discriminator detection.

(Source: Oetting, J.D., "A Comparison of Modulation Techniques for Digital Radio," *IEEE Transactions on Communications*, vol. 23, no. 12, December 1979.)

bandwidth redundancy is necessary to overcome severe levels of interference.

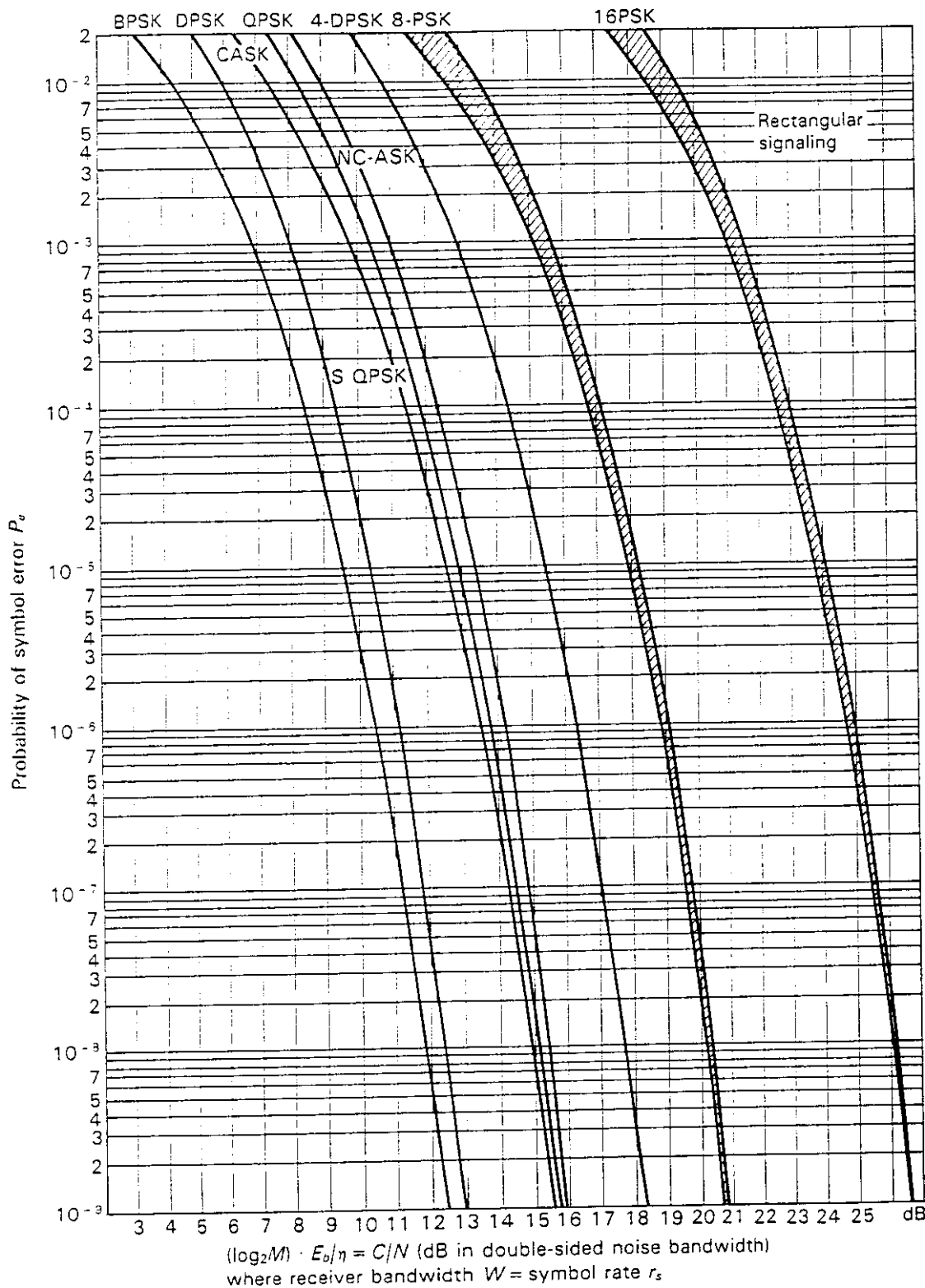
A second important characteristic is *randomness*. This makes it difficult to demodulate by receiving signals against unauthorized recipients, by sophisticated techniques. Spread-spectrum methods include:

1. Combating or suppressing interference in the channel, signals from other sources.
2. Hiding the signal by spreading it over a wide frequency band for unwanted listeners.
3. Achieving message privacy.

23. Spread-Spectrum Systems

Spread-spectrum systems are characterized by transmission bandwidths that are much wider than the minimum required to transmit the information. The large

FCC ID: NFX-RCC0001-00

Figure 6.5 P_e performance of various modulation schemes

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	
2441.20	-9.30	-31.30	-32.30	-3.00	12.80	Combiner Loss	20
2441.25	-9.30	-31.30	-33.30	-4.00	11.80	Cable Loss of EUT	1
2441.30	-9.30	-31.30	-33.30	-4.00	11.80	System Loss	1
2441.35	-9.30	-31.30	-33.30	-4.00	11.80	S/N ratio	2
2441.40	-9.30	-31.30	-32.30	-3.00	12.80	Cable Loss of the Signal Generator	13.8
2441.45	-9.30	-31.30	-32.30	-3.00	12.80		
2441.50	-9.30	-31.30	-32.30	-3.00	12.80		
2441.55	-9.30	-31.30	-32.30	-3.00	12.80		
2441.60	-9.30	-31.30	-32.30	-3.00	12.80		
2441.65	-9.30	-31.30	-32.30	-3.00	12.80		
2441.70	-9.30	-31.30	-32.30	-3.00	12.80		
2441.75	-9.30	-31.30	-32.30	-3.00	12.80		
2441.80	-9.30	-31.30	-32.30	-3.00	12.80		
2441.85	-9.30	-31.30	-32.30	-3.00	12.80		
2441.90	-9.30	-31.30	-32.30	-3.00	12.80		
2441.95	-9.30	-31.30	-31.30	-2.00	13.80		
2442.00	-9.30	-31.30	-32.30	-3.00	12.80		
2442.05	-9.30	-31.30	-32.30	-3.00	12.80		
2442.10	-9.30	-31.30	-32.30	-3.00	12.80		
2442.15	-9.30	-31.30	-32.30	-3.00	12.80		

Signal Level = TX Output - Attenuation -
Combiner Loss - Cable Loss of the EUT

Mj J/S ratio =
CW Noise - Sig. Level - Combiner Loss
- Cable Loss of the Signal Generator.

Processing Gain =
Mj J/S ratio + System Loss + S/N ratio.

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2442.20	-9.30	-31.30	-32.30	-3.00	12.80
2442.25	-9.30	-31.30	-32.30	-3.00	12.80
2442.30	-9.30	-31.30	-33.30	-4.00	11.80
2442.35	-9.30	-31.30	-32.30	-3.00	12.80
2442.40	-9.30	-31.30	-33.30	-4.00	11.80
2442.45	-9.30	-31.30	-32.30	-3.00	12.80
2442.50	-9.30	-31.30	-33.30	-4.00	11.80
2442.55	-9.30	-31.30	-33.30	-4.00	11.80
2442.60	-9.30	-31.30	-33.30	-4.00	11.80
2442.65	-9.30	-31.30	-32.30	-3.00	12.80
2442.70	-9.30	-31.30	-32.30	-3.00	12.80
2442.75	-9.30	-31.30	-32.30	-3.00	12.80
2442.80	-9.30	-31.30	-32.30	-3.00	12.80
2442.85	-9.30	-31.30	-33.30	-4.00	11.80
2442.90	-9.30	-31.30	-33.80	-4.50	11.30
2442.95	-9.30	-31.30	-33.30	-4.00	11.80
2443.00	-9.30	-31.30	-33.30	-4.00	11.80
2443.05	-9.30	-31.30	-33.30	-4.00	11.80
2443.10	-9.30	-31.30	-33.30	-4.00	11.80
2443.15	-9.30	-31.30	-33.30	-4.00	11.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer	Transmitter	Signal	CW	Mj	Processing	Attenuation	20
Freq.	Output	Level	Noise	J/S ratio	Gain	Combiner Loss	1
(MHz)	(dBm)	(dBm)	(dBm)	(dB)	(dBm)	Cable Loss of EUT	1
2443.20	-9.30	-31.30	-33.30	-4.00	11.80	System Loss	2
2443.25	-9.30	-31.30	-33.30	-4.00	11.80	S/N ratio	13.8
2443.30	-9.30	-31.30	-33.30	-4.00	11.80	Cable Loss of the	
2443.35	-9.30	-31.30	-33.30	-4.00	11.80	Signal Generator	1
2443.40	-9.30	-31.30	-34.30	-5.00	10.80		
2443.45	-9.30	-31.30	-33.30	-4.00	11.80	Signal Level = TX Ouput - Attenuation -	
2443.50	-9.30	-31.30	-34.30	-5.00	10.80	Combiner Loss - Cable Loss of the EUT	
2443.55	-9.30	-31.30	-33.30	-4.00	11.80		
2443.60	-9.30	-31.30	-33.30	-4.00	11.80	Mj J/S ratio =	
2443.65	-9.30	-31.30	-33.30	-4.00	11.80	CW Noise - Sig. Level - Combiner Loss	
2443.70	-9.30	-31.30	-33.30	-4.00	11.80	- Cable Loss of the Signal Generator.	
2443.75	-9.30	-31.30	-33.30	-4.00	11.80		
2443.80	-9.30	-31.30	-33.30	-4.00	11.80	Processing Gain =	
2443.85	-9.30	-31.30	-34.30	-5.00	10.80	Mj J/S ratio + System Loss + S/N ratio.	
2443.90	-9.30	-31.30	-34.30	-5.00	10.80		
2443.95	-9.30	-31.30	-34.30	-5.00	10.80		
2444.00	-9.30	-31.30	-34.30	-5.00	10.80		
2444.05	-9.30	-31.30	-33.30	-4.00	11.80		
2444.10	-9.30	-31.30	-34.30	-5.00	10.80		
2444.15	-9.30	-31.30	-34.30	-5.00	10.80		

CHANNEL 3 (2441.20 MHz)

Jammer	Transmitter	Signal	CW	Mj	Processing
Freq.	Output	Level	Noise	J/S ratio	Gain
(MHz)	(dBm)	(dBm)	(dBm)	(dB)	(dBm)
2444.20	-9.30	-31.30	-33.30	-4.00	11.80
2444.25	-9.30	-31.30	-33.30	-4.00	11.80
2444.30	-9.30	-31.30	-34.30	-5.00	10.80
2444.35	-9.30	-31.30	-34.30	-5.00	10.80
2444.40	-9.30	-31.30	-34.30	-5.00	10.80
2444.45	-9.30	-31.30	-34.30	-5.00	10.80
2444.50	-9.30	-31.30	-33.30	-4.00	11.80
2444.55	-9.30	-31.30	-32.30	-3.00	12.80
2444.60	-9.30	-31.30	-33.30	-4.00	11.80
2444.65	-9.30	-31.30	-34.30	-5.00	10.80
2444.70	-9.30	-31.30	-34.30	-5.00	10.80
2444.75	-9.30	-31.30	-33.30	-4.00	11.80
2444.80	-9.30	-31.30	-33.30	-4.00	11.80
2444.85	-9.30	-31.30	-34.30	-5.00	10.80
2444.90	-9.30	-31.30	-34.30	-5.00	10.80
2444.95	-9.30	-31.30	-34.30	-5.00	10.80
2445.00	-9.30	-31.30	-34.30	-5.00	10.80
2445.05	-9.30	-31.30	-34.30	-5.00	10.80
2445.10	-9.30	-31.30	-34.30	-5.00	10.80
2445.15	-9.30	-31.30	-34.30	-5.00	10.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2445.20	-9.30	-31.30	-34.30	-5.00	10.80	Combiner Loss	1
2445.25	-9.30	-31.30	-34.30	-5.00	10.80	Cable Loss of EUT	1
2445.30	-9.30	-31.30	-34.30	-5.00	10.80	System Loss	2
2445.35	-9.30	-31.30	-34.30	-5.00	10.80	S/N ratio	13.8
2445.40	-9.30	-31.30	-33.30	-4.00	11.80	Cable Loss of the Signal Generator	1
2445.45	-9.30	-31.30	-34.30	-5.00	10.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2445.50	-9.30	-31.30	-34.30	-5.00	10.80		
2445.55	-9.30	-31.30	-33.30	-4.00	11.80	Mj J/S ratio = CW Noise - Sig. Level - Combiner Loss - Cable Loss of the Signal Generator.	
2445.60	-9.30	-31.30	-33.30	-4.00	11.80		
2445.65	-9.30	-31.30	-33.30	-4.00	11.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2445.70	-9.30	-31.30	-33.30	-4.00	11.80		
2445.75	-9.30	-31.30	-34.30	-5.00	10.80		
2445.80	-9.30	-31.30	-34.30	-5.00	10.80		
2445.85	-9.30	-31.30	-34.30	-5.00	10.80		
2445.90	-9.30	-31.30	-33.30	-4.00	11.80		
2445.95	-9.30	-31.30	-33.30	-4.00	11.80		
2446.00	-9.30	-31.30	-34.30	-5.00	10.80		
2446.05	-9.30	-31.30	-34.30	-5.00	10.80		
2446.10	-9.30	-31.30	-34.30	-5.00	10.80		
2446.15	-9.30	-31.30	-34.30	-5.00	10.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2446.20	-9.30	-31.30	-34.30	-5.00	10.80
2446.25	-9.30	-31.30	-33.30	-4.00	11.80
2446.30	-9.30	-31.30	-34.30	-5.00	10.80
2446.35	-9.30	-31.30	-34.30	-5.00	10.80
2446.40	-9.30	-31.30	-34.30	-5.00	10.80
2446.45	-9.30	-31.30	-33.30	-4.00	11.80
2446.50	-9.30	-31.30	-33.30	-4.00	11.80
2446.55	-9.30	-31.30	-33.30	-4.00	11.80
2446.60	-9.30	-31.30	-33.30	-4.00	11.80
2446.65	-9.30	-31.30	-33.30	-4.00	11.80
2446.70	-9.30	-31.30	-34.30	-5.00	10.80
2446.75	-9.30	-31.30	-34.30	-5.00	10.80
2446.80	-9.30	-31.30	-34.30	-5.00	10.80
2446.85	-9.30	-31.30	-33.30	-4.00	11.80
2446.90	-9.30	-31.30	-33.30	-4.00	11.80
2446.95	-9.30	-31.30	-33.30	-4.00	11.80
2447.00	-9.30	-31.30	-33.30	-4.00	11.80
2447.05	-9.30	-31.30	-33.30	-4.00	11.80
2447.10	-9.30	-31.30	-33.30	-4.00	11.80
2447.15	-9.30	-31.30	-33.30	-4.00	11.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	
2447.20	-9.30	-31.30	-33.30	-4.00	11.80	Combiner Loss	20
2447.25	-9.30	-31.30	-32.30	-3.00	12.80	Cable Loss of EUT	1
2447.30	-9.30	-31.30	-32.30	-3.00	12.80	System Loss	1
2447.35	-9.30	-31.30	-32.30	-3.00	12.80	S/N ratio	2
2447.40	-9.30	-31.30	-32.30	-3.00	12.80	Cable Loss of the Signal Generator	13.8
2447.45	-9.30	-31.30	-32.30	-3.00	12.80		1
2447.50	-9.30	-31.30	-32.30	-3.00	12.80	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss of the EUT	
2447.55	-9.30	-31.30	-33.30	-4.00	11.80		
2447.60	-9.30	-31.30	-33.30	-4.00	11.80	Mj J/S ratio = CW Noise - Sig. Level - Combiner Loss - Cable Loss of the Signal Generator.	
2447.65	-9.30	-31.30	-32.30	-3.00	12.80		
2447.70	-9.30	-31.30	-32.30	-3.00	12.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2447.75	-9.30	-31.30	-32.30	-3.00	12.80		
2447.80	-9.30	-31.30	-31.30	-2.00	13.80		
2447.85	-9.30	-31.30	-31.30	-2.00	13.80		
2447.90	-9.30	-31.30	-31.30	-2.00	13.80		
2447.95	-9.30	-31.30	-31.30	-2.00	13.80		
2448.00	-9.30	-31.30	-31.30	-2.00	13.80		
2448.05	-9.30	-31.30	-31.30	-2.00	13.80		
2448.10	-9.30	-31.30	-31.30	-2.00	13.80		
2448.15	-9.30	-31.30	-31.30	-2.00	13.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2448.20	-9.30	-31.30	-31.30	-2.00	13.80
2448.25	-9.30	-31.30	-31.30	-2.00	13.80
2448.30	-9.30	-31.30	-31.30	-2.00	13.80
2448.35	-9.30	-31.30	-31.30	-2.00	13.80
2448.40	-9.30	-31.30	-30.30	-1.00	14.80
2448.45	-9.30	-31.30	-31.30	-2.00	13.80
2448.50	-9.30	-31.30	-31.30	-2.00	13.80
2448.55	-9.30	-31.30	-30.30	-1.00	14.80
2448.60	-9.30	-31.30	-30.30	-1.00	14.80
2448.65	-9.30	-31.30	-30.30	-1.00	14.80
2448.70	-9.30	-31.30	-30.30	-1.00	14.80
2448.75	-9.30	-31.30	-29.30	0.00	15.80
2448.80	-9.30	-31.30	-30.30	-1.00	14.80
2448.85	-9.30	-31.30	-29.30	0.00	15.80
2448.90	-9.30	-31.30	-29.30	0.00	15.80
2448.95	-9.30	-31.30	-29.30	0.00	15.80
2449.00	-9.30	-31.30	-29.30	0.00	15.80
2449.05	-9.30	-31.30	-29.30	0.00	15.80
2449.10	-9.30	-31.30	-28.30	1.00	16.80
2449.15	-9.30	-31.30	-28.30	1.00	16.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2449.20	-9.30	-31.30	-28.30	1.00	16.80	Combiner Loss	1
2449.25	-9.30	-31.30	-28.30	1.00	16.80	Cable Loss of EUT	1
2449.30	-9.30	-31.30	-27.30	2.00	17.80	System Loss	2
2449.35	-9.30	-31.30	-28.30	1.00	16.80	S/N ratio	13.8
2449.40	-9.30	-31.30	-28.30	1.00	16.80	Cable Loss of the Signal Generator	1
2449.45	-9.30	-31.30	-27.30	2.00	17.80	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss of the EUT	
2449.50	-9.30	-31.30	-27.30	2.00	17.80		
2449.55	-9.30	-31.30	-27.30	2.00	17.80	Mj J/S ratio = CW Noise - Sig. Level - Combiner Loss - Cable Loss of the Signal Generator.	
2449.60	-9.30	-31.30	-27.30	2.00	17.80		
2449.65	-9.30	-31.30	-27.30	2.00	17.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2449.70	-9.30	-31.30	-27.30	2.00	17.80		
2449.75	-9.30	-31.30	-27.30	2.00	17.80		
2449.80	-9.30	-31.30	-27.30	2.00	17.80		
2449.85	-9.30	-31.30	-27.30	2.00	17.80		
2449.90	-9.30	-31.30	-27.30	2.00	17.80		
2449.95	-9.30	-31.30	-27.30	2.00	17.80		
2450.00	-9.30	-31.30	-26.30	3.00	18.80		
2450.05	-9.30	-31.30	-25.30	4.00	19.80		
2450.10	-9.30	-31.30	-26.30	3.00	18.80		
2450.15	-9.30	-31.30	-26.30	3.00	18.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2450.20	-9.30	-31.30	-26.30	3.00	18.80
2450.25	-9.30	-31.30	-26.30	3.00	18.80
2450.30	-9.30	-31.30	-26.30	3.00	18.80
2450.35	-9.30	-31.30	-26.30	3.00	18.80
2450.40	-9.30	-31.30	-26.30	3.00	18.80
2450.45	-9.30	-31.30	-25.30	4.00	19.80
2450.50	-9.30	-31.30	-24.30	5.00	20.80
2450.55	-9.30	-31.30	-24.30	5.00	20.80
2450.60	-9.30	-31.30	-23.30	6.00	21.80
2450.65	-9.30	-31.30	-24.30	5.00	20.80
2450.70	-9.30	-31.30	-24.30	5.00	20.80
2450.75	-9.30	-31.30	-23.30	6.00	21.80
2450.80	-9.30	-31.30	-23.30	6.00	21.80
2450.85	-9.30	-31.30	-23.30	6.00	21.80
2450.90	-9.30	-31.30	-23.30	6.00	21.80
2450.95	-9.30	-31.30	-22.30	7.00	22.80
2451.00	-9.30	-31.30	-22.30	7.00	22.80
2451.05	-9.30	-31.30	-22.30	7.00	22.80
2451.10	-9.30	-31.30	-22.30	7.00	22.80
2451.15	-9.30	-31.30	-21.30	8.00	23.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2451.20	-9.30	-31.30	-22.30	7.00	22.80	Combiner Loss	1
2451.25	-9.30	-31.30	-22.30	7.00	22.80	Cable Loss of EUT	1
2451.30	-9.30	-31.30	-22.30	7.00	22.80	System Loss	2
2451.35	-9.30	-31.30	-21.30	8.00	23.80	S/N ratio	13.8
2451.40	-9.30	-31.30	-22.30	7.00	22.80	Cable Loss of the Signal Generator	1
2451.45	-9.30	-31.30	-21.30	8.00	23.80	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss of the EUT	
2451.50	-9.30	-31.30	-21.30	8.00	23.80		
2451.55	-9.30	-31.30	-20.30	9.00	24.80	Mj J/S ratio = CW Noise - Sig. Level - Combiner Loss - Cable Loss of the Signal Generator.	
2451.60	-9.30	-31.30	-20.30	9.00	24.80		
2451.65	-9.30	-31.30	-20.30	9.00	24.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2451.70	-9.30	-31.30	-20.30	9.00	24.80		
2451.75	-9.30	-31.30	-20.30	9.00	24.80		
2451.80	-9.30	-31.30	-20.30	9.00	24.80		
2451.85	-9.30	-31.30	-19.30	10.00	25.80		
2451.90	-9.30	-31.30	-19.30	10.00	25.80		
2451.95	-9.30	-31.30	-19.30	10.00	25.80		
2452.00	-9.30	-31.30	-19.30	10.00	25.80		
2452.05	-9.30	-31.30	-18.30	11.00	26.80		
2452.10	-9.30	-31.30	-18.30	11.00	26.80		
2452.15	-9.30	-31.30	-18.30	11.00	26.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2452.20	-9.30	-31.30	-18.30	11.00	26.80
2452.25	-9.30	-31.30	-18.30	11.00	26.80
2452.30	-9.30	-31.30	-17.30	12.00	27.80
2452.35	-9.30	-31.30	-17.30	12.00	27.80
2452.40	-9.30	-31.30	-16.30	13.00	28.80
2452.45	-9.30	-31.30	-16.30	13.00	28.80
2452.50	-9.30	-31.30	-16.30	13.00	28.80
2452.55	-9.30	-31.30	-15.30	14.00	29.80
2452.60	-9.30	-31.30	-15.30	14.00	29.80
2452.65	-9.30	-31.30	-15.30	14.00	29.80
2452.70	-9.30	-31.30	-15.30	14.00	29.80
2452.75	-9.30	-31.30	-15.30	14.00	29.80
2452.80	-9.30	-31.30	-14.30	15.00	30.80
2452.85	-9.30	-31.30	-14.30	15.00	30.80
2452.90	-9.30	-31.30	-14.30	15.00	30.80
2452.95	-9.30	-31.30	-14.30	15.00	30.80
2453.00	-9.30	-31.30	-13.30	16.00	31.80
2453.05	-9.30	-31.30	-13.30	16.00	31.80
2453.10	-9.30	-31.30	-13.30	16.00	31.80
2453.15	-9.30	-31.30	-13.30	16.00	31.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer	Transmitter	Signal	CW	Mj	Processing	Attenuation	20
Freq.	Output	Level	Noise	J/S ratio	Gain	Combiner Loss	1
(MHz)	(dBm)	(dBm)	(dBm)	(dB)	(dBm)	Cable Loss of EUT	1
2453.20	-9.30	-31.30	-12.30	17.00	32.80	System Loss	2
2453.25	-9.30	-31.30	-11.30	18.00	33.80	S/N ratio	13.8
2453.30	-9.30	-31.30	-11.30	18.00	33.80	Cable Loss of the	
2453.35	-9.30	-31.30	-11.30	18.00	33.80	Signal Generator	1
2453.40	-9.30	-31.30	-11.30	18.00	33.80		
2453.45	-9.30	-31.30	-10.30	19.00	34.80	Signal Level = TX Ouput - Attenuation -	
2453.50	-9.30	-31.30	-10.30	19.00	34.80	Combiner Loss - Cable Loss of the EUT	
2453.55	-9.30	-31.30	-10.30	19.00	34.80		
2453.60	-9.30	-31.30	-10.30	19.00	34.80	Mj J/S ratio =	
2453.65	-9.30	-31.30	-9.30	20.00	35.80	CW Noise - Sig. Level - Combiner Loss	
2453.70	-9.30	-31.30	-8.30	21.00	36.80	- Cable Loss of the Signal Generator.	

Processing Gain =

Mj J/S ratio + System Loss + S/N ratio.

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2428.70	-9.30	-31.30	-21.30	8.00	23.80	Combiner Loss	1
2428.75	-9.30	-31.30	-21.30	8.00	23.80	Cable Loss of EUT	1
2428.80	-9.30	-31.30	-21.30	8.00	23.80	System Loss	2
2428.85	-9.30	-31.30	-21.30	8.00	23.80	S/N ratio	13.8
2428.90	-9.30	-31.30	-21.30	8.00	23.80	Cable Loss of the Signal Generator	1
2428.95	-9.30	-31.30	-21.30	8.00	23.80	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss of the EUT	
2429.00	-9.30	-31.30	-22.30	7.00	22.80		
2429.05	-9.30	-31.30	-22.30	7.00	22.80	Mj J/S ratio = CW Noise - Sig. Level - Combiner Loss - Cable Loss of the Signal Generator.	
2429.10	-9.30	-31.30	-22.30	7.00	22.80		
2429.15	-9.30	-31.30	-22.30	7.00	22.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2429.20	-9.30	-31.30	-22.30	7.00	22.80		
2429.25	-9.30	-31.30	-22.30	7.00	22.80		
2429.30	-9.30	-31.30	-22.30	7.00	22.80		
2429.35	-9.30	-31.30	-22.30	7.00	22.80		
2429.40	-9.30	-31.30	-22.30	7.00	22.80		
2429.45	-9.30	-31.30	-22.30	7.00	22.80		
2429.50	-9.30	-31.30	-22.30	7.00	22.80		
2429.55	-9.30	-31.30	-22.30	7.00	22.80		
2429.60	-9.30	-31.30	-22.30	7.00	22.80		
2429.65	-9.30	-31.30	-23.30	6.00	21.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2429.70	-9.30	-31.30	-23.30	6.00	21.80
2429.75	-9.30	-31.30	-23.30	6.00	21.80
2429.80	-9.30	-31.30	-23.30	6.00	21.80
2429.85	-9.30	-31.30	-23.30	6.00	21.80
2429.90	-9.30	-31.30	-24.30	5.00	20.80
2429.95	-9.30	-31.30	-25.30	4.00	19.80
2430.00	-9.30	-31.30	-25.30	4.00	19.80
2430.05	-9.30	-31.30	-25.30	4.00	19.80
2430.10	-9.30	-31.30	-25.30	4.00	19.80
2430.15	-9.30	-31.30	-25.30	4.00	19.80
2430.20	-9.30	-31.30	-25.30	4.00	19.80
2430.25	-9.30	-31.30	-25.30	4.00	19.80
2430.30	-9.30	-31.30	-25.30	4.00	19.80
2430.35	-9.30	-31.30	-25.30	4.00	19.80
2430.40	-9.30	-31.30	-26.30	3.00	18.80
2430.45	-9.30	-31.30	-26.30	3.00	18.80
2430.50	-9.30	-31.30	-26.30	3.00	18.80
2430.55	-9.30	-31.30	-25.30	4.00	19.80
2430.60	-9.30	-31.30	-26.30	3.00	18.80
2430.65	-9.30	-31.30	-26.30	3.00	18.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2430.70	-9.30	-31.30	-26.30	3.00	18.80	Combiner Loss	1
2430.75	-9.30	-31.30	-26.30	3.00	18.80	Cable Loss of EUT	1
2430.80	-9.30	-31.30	-26.30	3.00	18.80	System Loss	2
2430.85	-9.30	-31.30	-26.30	3.00	18.80	S/N ratio	13.8
2430.90	-9.30	-31.30	-26.30	3.00	18.80	Cable Loss of the Signal Generator	1
2430.95	-9.30	-31.30	-26.30	3.00	18.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2431.00	-9.30	-31.30	-25.30	4.00	19.80		
2431.05	-9.30	-31.30	-25.30	4.00	19.80	Mj J/S ratio = CW Noise - Sig. Level - Combiner Loss - Cable Loss of the Signal Generator.	
2431.10	-9.30	-31.30	-25.30	4.00	19.80		
2431.15	-9.30	-31.30	-26.30	3.00	18.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2431.20	-9.30	-31.30	-26.30	3.00	18.80		
2431.25	-9.30	-31.30	-26.30	3.00	18.80		
2431.30	-9.30	-31.30	-26.30	3.00	18.80		
2431.35	-9.30	-31.30	-26.30	3.00	18.80		
2431.40	-9.30	-31.30	-26.30	3.00	18.80		
2431.45	-9.30	-31.30	-26.30	3.00	18.80		
2431.50	-9.30	-31.30	-26.30	3.00	18.80		
2431.55	-9.30	-31.30	-25.30	4.00	19.80		
2431.60	-9.30	-31.30	-26.30	3.00	18.80		
2431.65	-9.30	-31.30	-26.30	3.00	18.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2431.70	-9.30	-31.30	-27.30	2.00	17.80
2431.75	-9.30	-31.30	-27.30	2.00	17.80
2431.80	-9.30	-31.30	-28.30	1.00	16.80
2431.85	-9.30	-31.30	-28.30	1.00	16.80
2431.90	-9.30	-31.30	-28.30	1.00	16.80
2431.95	-9.30	-31.30	-29.30	0.00	15.80
2432.00	-9.30	-31.30	-29.30	0.00	15.80
2432.05	-9.30	-31.30	-29.30	0.00	15.80
2432.10	-9.30	-31.30	-29.30	0.00	15.80
2432.15	-9.30	-31.30	-29.30	0.00	15.80
2432.20	-9.30	-31.30	-29.30	0.00	15.80
2432.25	-9.30	-31.30	-29.30	0.00	15.80
2432.30	-9.30	-31.30	-29.30	0.00	15.80
2432.35	-9.30	-31.30	-28.30	1.00	16.80
2432.40	-9.30	-31.30	-28.30	1.00	16.80
2432.45	-9.30	-31.30	-28.30	1.00	16.80
2432.50	-9.30	-31.30	-29.30	0.00	15.80
2432.55	-9.30	-31.30	-29.30	0.00	15.80
2432.60	-9.30	-31.30	-29.30	0.00	15.80
2432.65	-9.30	-31.30	-29.30	0.00	15.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer	Transmitter	Signal	CW	Mj	Processing	Attenuation	20
Freq.	Output	Level	Noise	J/S ratio	Gain	Combiner Loss	1
(MHz)	(dBm)	(dBm)	(dBm)	(dB)	(dBm)	Cable Loss of EUT	1
2432.70	-9.30	-31.30	-28.30	1.00	16.80	System Loss	2
2432.75	-9.30	-31.30	-29.30	0.00	15.80	S/N ratio	13.8
2432.80	-9.30	-31.30	-29.30	0.00	15.80	Cable Loss of the	
2432.85	-9.30	-31.30	-29.30	0.00	15.80	Signal Generator	1
2432.90	-9.30	-31.30	-29.30	0.00	15.80		
2432.95	-9.30	-31.30	-30.30	-1.00	14.80	Signal Level = TX Output - Attenuation -	
2433.00	-9.30	-31.30	-30.30	-1.00	14.80	Combiner Loss - Cable Loss of the EUT	
2433.05	-9.30	-31.30	-30.30	-1.00	14.80		
2433.10	-9.30	-31.30	-30.30	-1.00	14.80	Mj J/S ratio =	
2433.15	-9.30	-31.30	-29.30	0.00	15.80	CW Noise - Sig. Level - Combiner Loss	
2433.20	-9.30	-31.30	-30.30	-1.00	14.80	- Cable Loss of the Signal Generator.	
2433.25	-9.30	-31.30	-30.30	-1.00	14.80		
2433.30	-9.30	-31.30	-30.30	-1.00	14.80	Processing Gain =	
2433.35	-9.30	-31.30	-30.30	-1.00	14.80	Mj J/S ratio + System Loss + S/N ratio.	
2433.40	-9.30	-31.30	-30.30	-1.00	14.80		
2433.45	-9.30	-31.30	-30.30	-1.00	14.80		
2433.50	-9.30	-31.30	-31.30	-2.00	13.80		
2433.55	-9.30	-31.30	-31.30	-2.00	13.80		
2433.60	-9.30	-31.30	-31.30	-2.00	13.80		
2433.65	-9.30	-31.30	-31.30	-2.00	13.80		

CHANNEL 3 (2441.20 MHz)

Jammer	Transmitter	Signal	CW	Mj	Processing
Freq.	Output	Level	Noise	J/S ratio	Gain
(MHz)	(dBm)	(dBm)	(dBm)	(dB)	(dBm)
2433.70	-9.30	-31.30	-31.30	-2.00	13.80
2433.75	-9.30	-31.30	-31.30	-2.00	13.80
2433.80	-9.30	-31.30	-31.30	-2.00	13.80
2433.85	-9.30	-31.30	-31.30	-2.00	13.80
2433.90	-9.30	-31.30	-31.30	-2.00	13.80
2433.95	-9.30	-31.30	-31.30	-2.00	13.80
2434.00	-9.30	-31.30	-31.30	-2.00	13.80
2434.05	-9.30	-31.30	-31.30	-2.00	13.80
2434.10	-9.30	-31.30	-31.30	-2.00	13.80
2434.15	-9.30	-31.30	-31.30	-2.00	13.80
2434.20	-9.30	-31.30	-31.30	-2.00	13.80
2434.25	-9.30	-31.30	-32.30	-3.00	12.80
2434.30	-9.30	-31.30	-32.30	-3.00	12.80
2434.35	-9.30	-31.30	-32.30	-3.00	12.80
2434.40	-9.30	-31.30	-32.30	-3.00	12.80
2434.45	-9.30	-31.30	-32.30	-3.00	12.80
2434.50	-9.30	-31.30	-33.30	-4.00	11.80
2434.55	-9.30	-31.30	-33.30	-4.00	11.80
2434.60	-9.30	-31.30	-33.30	-4.00	11.80
2434.65	-9.30	-31.30	-33.30	-4.00	11.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2434.70	-9.30	-31.30	-33.30	-4.00	11.80	Combiner Loss	1
2434.75	-9.30	-31.30	-32.30	-3.00	12.80	Cable Loss of EUT	1
2434.80	-9.30	-31.30	-32.30	-3.00	12.80	System Loss	2
2434.85	-9.30	-31.30	-32.30	-3.00	12.80	S/N ratio	13.8
2434.90	-9.30	-31.30	-33.30	-4.00	11.80	Cable Loss of the Signal Generator	1
2434.95	-9.30	-31.30	-33.30	-4.00	11.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2435.00	-9.30	-31.30	-32.30	-3.00	12.80		
2435.05	-9.30	-31.30	-32.30	-3.00	12.80		
2435.10	-9.30	-31.30	-32.30	-3.00	12.80	Mj J/S ratio =	
2435.15	-9.30	-31.30	-32.30	-3.00	12.80		
2435.20	-9.30	-31.30	-32.30	-3.00	12.80	CW Noise - Sig. Level - Combiner Loss - Cable Loss of the Signal Generator.	
2435.25	-9.30	-31.30	-32.30	-3.00	12.80		
2435.30	-9.30	-31.30	-32.30	-3.00	12.80	Processing Gain =	
2435.35	-9.30	-31.30	-32.30	-3.00	12.80		
2435.40	-9.30	-31.30	-33.30	-4.00	11.80	Mj J/S ratio + System Loss + S/N ratio.	
2435.45	-9.30	-31.30	-33.30	-4.00	11.80		
2435.50	-9.30	-31.30	-33.30	-4.00	11.80		
2435.55	-9.30	-31.30	-33.30	-4.00	11.80		
2435.60	-9.30	-31.30	-33.30	-4.00	11.80		
2435.65	-9.30	-31.30	-32.30	-3.00	12.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2435.70	-9.30	-31.30	-32.30	-3.00	12.80
2435.75	-9.30	-31.30	-32.30	-3.00	12.80
2435.80	-9.30	-31.30	-33.30	-4.00	11.80
2435.85	-9.30	-31.30	-33.30	-4.00	11.80
2435.90	-9.30	-31.30	-33.30	-4.00	11.80
2435.95	-9.30	-31.30	-33.30	-4.00	11.80
2436.00	-9.30	-31.30	-33.30	-4.00	11.80
2436.05	-9.30	-31.30	-33.30	-4.00	11.80
2436.10	-9.30	-31.30	-33.30	-4.00	11.80
2436.15	-9.30	-31.30	-33.30	-4.00	11.80
2436.20	-9.30	-31.30	-33.30	-4.00	11.80
2436.25	-9.30	-31.30	-33.30	-4.00	11.80
2436.30	-9.30	-31.30	-33.30	-4.00	11.80
2436.35	-9.30	-31.30	-33.30	-4.00	11.80
2436.40	-9.30	-31.30	-33.30	-4.00	11.80
2436.45	-9.30	-31.30	-34.30	-5.00	10.80
2436.50	-9.30	-31.30	-34.30	-5.00	10.80
2436.55	-9.30	-31.30	-34.30	-5.00	10.80
2436.60	-9.30	-31.30	-34.30	-5.00	10.80
2436.65	-9.30	-31.30	-34.30	-5.00	10.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2436.70	-9.30	-31.30	-34.30	-5.00	10.80	Combiner Loss	1
2436.75	-9.30	-31.30	-34.30	-5.00	10.80	Cable Loss of EUT	1
2436.80	-9.30	-31.30	-34.30	-5.00	10.80	System Loss	2
2436.85	-9.30	-31.30	-34.30	-5.00	10.80	S/N ratio	13.8
2436.90	-9.30	-31.30	-34.30	-5.00	10.80	Cable Loss of the Signal Generator	1
2436.95	-9.30	-31.30	-34.30	-5.00	10.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2437.00	-9.30	-31.30	-34.30	-5.00	10.80		
2437.05	-9.30	-31.30	-34.30	-5.00	10.80	Mj J/S ratio =	
2437.10	-9.30	-31.30	-34.30	-5.00	10.80		
2437.15	-9.30	-31.30	-34.30	-5.00	10.80	CW Noise - Sig. Level - Combiner Loss - Cable Loss of the Signal Generator.	
2437.20	-9.30	-31.30	-34.30	-5.00	10.80		
2437.25	-9.30	-31.30	-34.30	-5.00	10.80	Processing Gain =	
2437.30	-9.30	-31.30	-34.30	-5.00	10.80		
2437.35	-9.30	-31.30	-34.30	-5.00	10.80	Mj J/S ratio + System Loss + S/N ratio.	
2437.40	-9.30	-31.30	-34.30	-5.00	10.80		
2437.45	-9.30	-31.30	-34.30	-5.00	10.80		
2437.50	-9.30	-31.30	-34.30	-5.00	10.80		
2437.55	-9.30	-31.30	-34.30	-5.00	10.80		
2437.60	-9.30	-31.30	-34.30	-5.00	10.80		
2437.65	-9.30	-31.30	-34.30	-5.00	10.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2437.70	-9.30	-31.30	-34.30	-5.00	10.80
2437.75	-9.30	-31.30	-34.30	-5.00	10.80
2437.80	-9.30	-31.30	-34.30	-5.00	10.80
2437.85	-9.30	-31.30	-34.30	-5.00	10.80
2437.90	-9.30	-31.30	-34.30	-5.00	10.80
2437.95	-9.30	-31.30	-34.30	-5.00	10.80
2438.00	-9.30	-31.30	-34.30	-5.00	10.80
2438.05	-9.30	-31.30	-34.30	-5.00	10.80
2438.10	-9.30	-31.30	-34.30	-5.00	10.80
2438.15	-9.30	-31.30	-34.30	-5.00	10.80
2438.20	-9.30	-31.30	-34.30	-5.00	10.80
2438.25	-9.30	-31.30	-34.30	-5.00	10.80
2438.30	-9.30	-31.30	-34.30	-5.00	10.80
2438.35	-9.30	-31.30	-35.30	-6.00	9.80
2438.40	-9.30	-31.30	-35.30	-6.00	9.80
2438.45	-9.30	-31.30	-35.30	-6.00	9.80
2438.50	-9.30	-31.30	-34.30	-5.00	10.80
2438.55	-9.30	-31.30	-34.30	-5.00	10.80
2438.60	-9.30	-31.30	-34.30	-5.00	10.80
2438.65	-9.30	-31.30	-34.30	-5.00	10.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	20
2438.70	-9.30	-31.30	-34.30	-5.00	10.80	Combiner Loss	1
2438.75	-9.30	-31.30	-34.30	-5.00	10.80	Cable Loss of EUT	1
2438.80	-9.30	-31.30	-34.30	-5.00	10.80	System Loss	2
2438.85	-9.30	-31.30	-34.30	-5.00	10.80	S/N ratio	13.8
2438.90	-9.30	-31.30	-34.30	-5.00	10.80	Cable Loss of the Signal Generator	1
2438.95	-9.30	-31.30	-34.30	-5.00	10.80	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss of the EUT	
2439.00	-9.30	-31.30	-34.30	-5.00	10.80		
2439.05	-9.30	-31.30	-34.30	-5.00	10.80	Mj J/S ratio = CW Noise - Sig. Level - Combiner Loss - Cable Loss of the Signal Generator.	
2439.10	-9.30	-31.30	-35.30	-6.00	9.80		
2439.15	-9.30	-31.30	-35.30	-6.00	9.80	Processing Gain = Mj J/S ratio + System Loss + S/N ratio.	
2439.20	-9.30	-31.30	-35.30	-6.00	9.80		
2439.25	-9.30	-31.30	-35.30	-6.00	9.80		
2439.30	-9.30	-31.30	-35.30	-6.00	9.80		
2439.35	-9.30	-31.30	-35.30	-6.00	9.80		
2439.40	-9.30	-31.30	-35.30	-6.00	9.80		
2439.45	-9.30	-31.30	-34.30	-5.00	10.80		
2439.50	-9.30	-31.30	-35.30	-6.00	9.80		
2439.55	-9.30	-31.30	-35.30	-6.00	9.80		
2439.60	-9.30	-31.30	-35.30	-6.00	9.80		
2439.65	-9.30	-31.30	-35.30	-6.00	9.80		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2439.70	-9.30	-31.30	-35.30	-6.00	9.80
2439.75	-9.30	-31.30	-34.30	-5.00	10.80
2439.80	-9.30	-31.30	-34.30	-5.00	10.80
2439.85	-9.30	-31.30	-34.30	-5.00	10.80
2439.90	-9.30	-31.30	-34.30	-5.00	10.80
2439.95	-9.30	-31.30	-34.30	-5.00	10.80
2440.00	-9.30	-31.30	-34.30	-5.00	10.80
2440.05	-9.30	-31.30	-34.30	-5.00	10.80
2440.10	-9.30	-31.30	-34.30	-5.00	10.80
2440.15	-9.30	-31.30	-34.30	-5.00	10.80
2440.20	-9.30	-31.30	-34.30	-5.00	10.80
2440.25	-9.30	-31.30	-33.30	-4.00	11.80
2440.30	-9.30	-31.30	-33.30	-4.00	11.80
2440.35	-9.30	-31.30	-33.30	-4.00	11.80
2440.40	-9.30	-31.30	-34.30	-5.00	10.80
2440.45	-9.30	-31.30	-34.30	-5.00	10.80
2440.50	-9.30	-31.30	-33.30	-4.00	11.80
2440.55	-9.30	-31.30	-33.30	-4.00	11.80
2440.60	-9.30	-31.30	-33.30	-4.00	11.80
2440.65	-9.30	-31.30	-33.30	-4.00	11.80

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

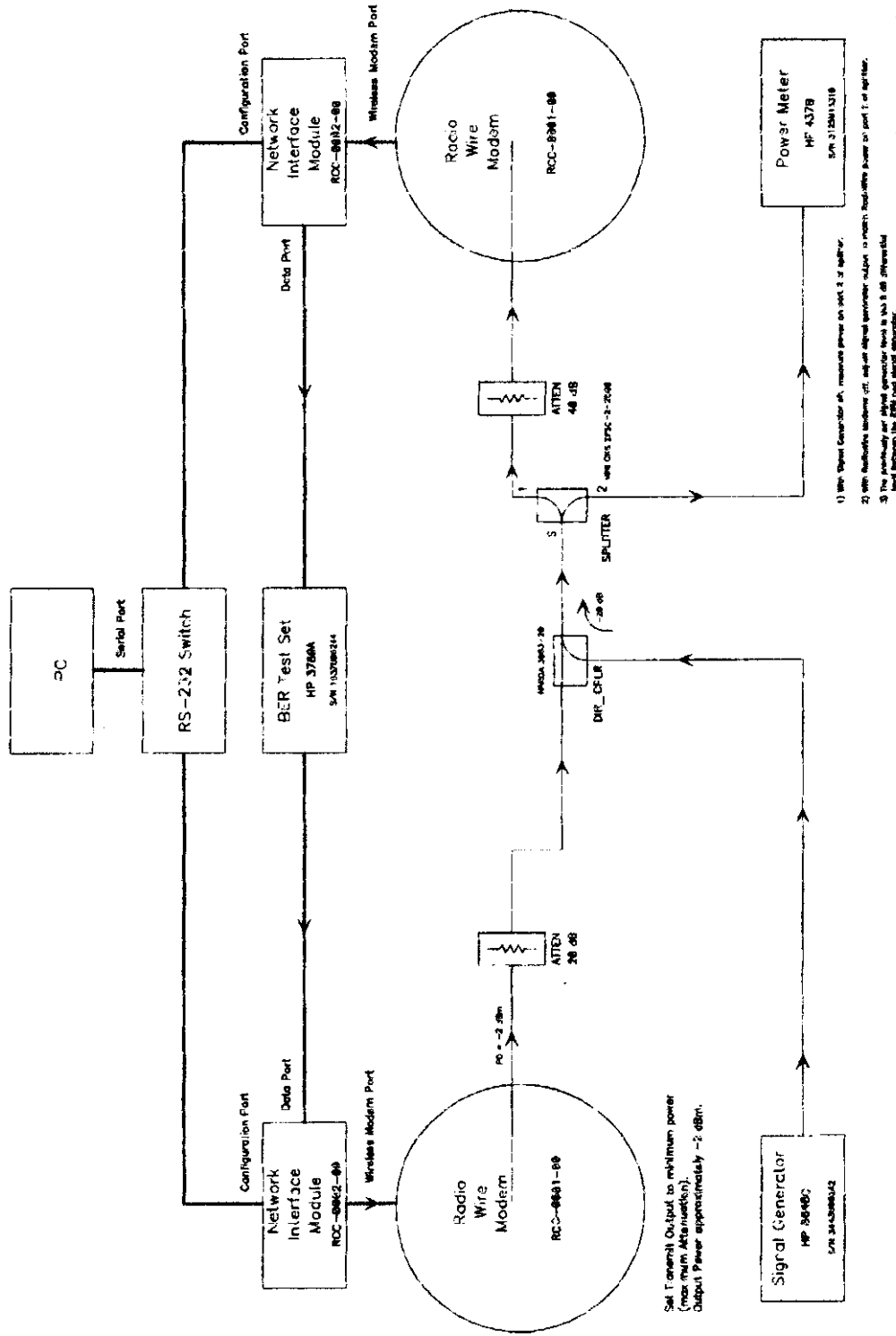
Jammer	Transmitter	Signal	CW	Mj	Processing	Attenuation	20
Freq.	Output	Level	Noise	J/S ratio	Gain	Combiner Loss	1
(MHz)	(dBm)	(dBm)	(dBm)	(dB)	(dBm)	Cable Loss of EUT	1
2440.70	-9.30	-31.30	-33.30	-4.00	11.80	System Loss	2
2440.75	-9.30	-31.30	-33.30	-4.00	11.80	S/N ratio	13.8
2440.80	-9.30	-31.30	-33.30	-4.00	11.80	Cable Loss of the	
2440.85	-9.30	-31.30	-34.30	-5.00	10.80	Signal Generator	1
2440.90	-9.30	-31.30	-33.30	-4.00	11.80		
2440.95	-9.30	-31.30	-34.30	-5.00	10.80		
2441.00	-9.30	-31.30	-33.30	-4.00	11.80	Signal Level = TX Ouput - Attenuation -	
2441.05	-9.30	-31.30	-33.30	-4.00	11.80	Combiner Loss - Cable Loss of the EUT	
2441.10	-9.30	-31.30	-33.30	-4.00	11.80	Mj J/S ratio =	
2441.15	-9.30	-31.30	-33.30	-4.00	11.80	CW Noise - Sig. Level - Combiner Loss	
						- Cable Loss of the Signal Generator.	

Processing Gain =

Mj J/S ratio + System Loss + S/N ratio.

FCC ID: NFX-RCC0001-00

Process Gain Test Setup



RadioConnect Corporation		6100 3043306	
The Block Diagram, Process Gain Test Fixture		Rev 2.1	
Star Number	C	Green EY AJ	Sheet 1 of 1
Date	7/7/90	Green EY AJ	
File Name	Gain Test.Dwg		



LIST OF EXHIBITS

- 1) PROPOSED FCC LABEL AND ITS LOCATION
- 2) LETTER OF AUTHORITY
- 3) ANTI-DRUG ABUSE LETTER
- 4) EXPOSITORY STATEMENT
- 5) TECHNICAL TEST REPORT
- 6) PHOTOGRAPHS
- 7) SCHEMATICS, ANTENNA, AND DUTY CYCLE INFO
- 8) OWNER'S MANUAL



**COMPATIBLE
ELECTRONICS**

114 OLINDA DRIVE, BREA, CA 92823 • (714) 579-0500 • FAX (714) 579-1850

May 04, 1998

Federal Communications Commission
Equipment Approval Services
P.O. Box 358315
Pittsburgh, PA 15251-5315

Subject: Request for Certification of the
RadioConnect Corporation
2.44 GHz RadioWire Modem
Model: RCC0001

FCC ID: NFX-RCC0001-00

Fee: A check for \$1025.00 for the certification and request for
confidentiality is enclosed.

Gentlemen:

We have enclosed a package for the certification of the RadioConnect Corporation 2.44
GHz RadioWire Model: RCC0001.

We have enclosed the completed Form 731 with the applicable exhibits. A list of the
exhibits is enclosed with this package.

If you have any questions or need any additional information, please give me a call at
(714) 579-0500.

Sincerely,

Scott McCutchan
Lab Manager



EXHIBIT 5

TECHNICAL TEST REPORT

COMPATIBLE ELECTRONICS
REPORT NO. B80428D1
DATE: APRIL 30, 1998

*FCC PART 15 SUBPART C
TEST REPORT*
for
2.44 GHz RADIOWIRE MODEM
Model: RCC0001

Prepared for
RADIOCONNECT CORPORATION
6041 BRISTOL PARKWAY
CULVER CITY, CALIFORNIA 90230

Prepared by
COMPATIBLE ELECTRONICS INC.
114 OLINDA DRIVE
BREA, CALIFORNIA 92823
(714) 579-0500

DATES OF TEST: APRIL 16, 17, 18, 26, AND 27, 1998

	REPORT BODY	APPENDICES				TOTAL
		<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	
PAGES	24	59	9	8	3	103

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Report Number: B80428D1

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LIST OF FIGURES

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FIGURE 1a - Processing Gain Setup

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INFORMATION |
| APPENDIX | C | - | ANTENNA FACTORS AND
EFFECTIVE GAIN FACTORS |
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REPORT NO. B80428D1

DATE: APRIL 30, 1998

SUMMARY OF TEST REPORT

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent consulting firm. The test report is based on the emission data measured by Compatible Electronics personnel according to the ANSI C63.4 1992 measurement procedure. The site attenuation measurement data for the firm's open field test site is filed with FCC, according to the ANSI C63.4 1992. The test results, provided with this report, indicate that the electromagnetic emissions from the equipment tested are within the specification limits defined by FCC Title 47, Part 15, Subpart C, Section 15.247.

Device Tested: 2.44 GHz Radiowire Modem
Model: RCC0001

Manufacturer: RadioConnect Corporation
6041 Bristol Parkway
Culver City, California 90230

Frequency Ranges of the Test: Conducted: 450 kHz to 30 MHz
Radiated: 10 kHz to 25 GHz

Test Location: 114 Olinda Drive, Brea, California 92823

Test Dates: April 16, 17, 18, 26, and 27, 1998

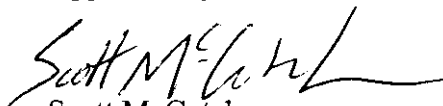
The measurement data and conclusions are a true and accurate representation of the electromagnetic emissions characteristics of the test sample described in this report.

Report prepared by:



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Compatible Electronics, Inc.

Approved by:



Scott McCutchan
Lab Manager
Compatible Electronics, Inc.

1. PURPOSE

This test report describes the electromagnetic emissions tests performed and the results obtained on the equipment described herein, based on the emission data measured by Compatible Electronics personnel. The measurements were performed according to the ANSI C63.4 1992 measurement procedure to determine whether the electromagnetic emissions from the equipment tested are within the specification limits defined by FCC Title 47, Part 15, Subpart C., Section 15.247.



2. DESCRIPTION OF TEST SAMPLE

The components of the EUT were tested separately.

Specifics of the EUT and Peripherals Tested

The 2.44 GHz RadioWire Modem Model: RCC0001 (EUT) was placed on the wooden table and tested in three orthogonal axis. The low (channel 1), medium (channel 3), and high (channel 5) channels were tested. The EUT was connected to and powered by a Network Interface Module via its power port. The EUT was transmitting on a continuous basis and sending information to the Network Interface Module. The radiated and conducted data was taken in this mode of operation. All initial investigations were performed with the EMI receiver in manual mode scanning the frequency range continuously. The cables were bundled and routed as shown in the photographs in Appendix B.

Note: Three different antennas were tested with the EUT (Helical, 0.6 Meter Dish, and 1.0 Meter Dish). Complete data for the harmonics was taken for all antennas, while for the spurious, the 1.0 Meter Dish antenna was found to be the worst case and final data was taken with this antenna. More information about the each antenna can be found in Exhibit 7 of this package along with the duty cycle information and schematics.

3. PROCESSING GAIN

The Processing Gain was measured using the CW jamming margin method. Figure 1a shows the test configuration. The test consists of stepping a signal generator at 60 equal increments across the passband of the system (up to 12.8 MHz away from the center frequency). The passband of the system is 25.6 MHz (± 12.8 MHz). At each point, the generator level required to produce the recommended Bit Error Rate (BER) (Set at BER=10 to the negative sixth power) is recorded. This level is the jamming level. The output power of the transmitter 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 point. The lowest remaining J/S ratio is used to calculate the processing gain. The maximum implementation loss a system can claim in calculating processing gain is 2 dB. The equation to calculate the processing gain (Gp) is the following:

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

Where L_{sys} = system implementation loss = 2dB

M_j = jamming margin (J/S) in dB,

$(S/N)_o$ = signal to noise ratio required for a OQPSK system with BER of 10 to the negative sixth power.

The theoretical GP is 15 dB

4. TRANSMITTER

The transmitter takes the filtered I / Q channel data from the Spread Spectrum Controller board which are modulated into a 2.4 GHz carrier by using a Quadrature Phase Shift Keying (QPSK) modulator (see Block Diagram, Transceiver board, U3). The resulting signal is amplified, amplitude level adjusted, and filtered before going through a Transmit/Receive (T/R) switch that allows the antenna to be shared by the transmitter and receiver. The signal is bandpass filtered prior to reaching the antenna. The transmit level is factory set to a maximum output of +24 dBm.

**5. TRANSMITTER POWER**

Transmit power is herein defined as the power delivered to a 50 Ohm load at the proprietary antenna connector on the RadioWire unit. The power output is adjustable between +24 dBm and -4 dBm using an internal programmable attenuator in approximately 2 dB steps.

6. CHANNEL NUMBER AND FREQUENCIES

The RF channels occupy the frequency band 2414.00-2468.40 MHz and are numbered 1 to 5.

Channel Number	Channel center Frequency (MHz)
1	2414.00
2	2426.80
3	2441.20
4	2455.60
5	2468.40

7. CHIPPING RATE

A 32,768 bit chipping code is used. The chipping code is clocked at a 12.8 MHz rate.

8. SPREADING GAIN

The spreading gain is 15 dB.



9. ANTENNA GAIN

The antenna gain for the helical antenna is +14 dBi.

The antenna gain for the 0.6 meter dish antenna is +20 dBi

The antenna gain for the 1.0 meter dish antenna is +24 dBi

10. TEST EQUIPMENT

The test equipment used during the test described in this report are listed in Table 1.

Test Equipment Modes and Settings

Conducted Test

The HP 8566B spectrum analyzer was used as a measuring meter along with the HP 85650A quasi-peak adapter. The data was collected by the spectrum analyzer in peak detect mode with the "Max Hold" feature activated. The quasi-peak detection was used only where indicated in the data sheets. A 10 dB attenuation pad was used for the spectrum analyzer input stage protection and the program settings were adjusted accordingly to indicate the actual reading in the program output. One LISN output was read by the HP 8566B spectrum analyzer at a time while the output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for the conducted emissions test was 9 kHz.

Radiated Test

The HP 8566B spectrum analyzer was used as a measuring meter along with the HP 85650A quasi-peak adapter.

The spectrum analyzer was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps. The quasi-peak detection was used only for those readings which are marked accordingly in the data sheet. The effective measurement bandwidth used for the radiated emissions test was 200 Hz from 10 kHz to 150 kHz, 9 kHz from 150 kHz to 30 MHz, 120 kHz from 30 MHz to 1 GHz, and 1 MHz from 1 GHz to 25 GHz.

Broadband active loop, biconical, log periodic and horn antennas were used as transducers during the measurement. The frequency spans were wide (10 kHz - 150 kHz, 150 kHz - 10 MHz, 10 MHz - 30 MHz, 30 - 88 MHz, 88 - 216 MHz, 216 - 300 MHz, 300 MHz - 1 GHz, 1 GHz - 2 GHz, 2 GHz - 10 GHz, 10 GHz - 22 GHz, and 22 GHz - 24.5 GHz) during preliminary investigations. However, the final data was taken with a frequency span of 1 MHz. Furthermore, the frequency span was reduced during the preliminary investigations as deemed necessary. For the 22 GHz - 25 GHz span a harmonic mixer was used to allow the analyzer to see up to 25 GHz.

TABLE 1 LIST OF TEST EQUIPMENT FOR EMI

EQUIPMENT TYPE	MANU- FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
Spectrum Analyzer	Hewlett Packard	8566B	2729A04566	July 2, 1997	1 Year
Preamplifier	Com Power	PA-102	1017	February 16, 1998	1 Year
Quasi-Peak Adapter	Hewlett Packard	85650A	2521A00924	June 16, 1997	1 Year
RF Attenuator	Com-Power	A-410	1602	Nov. 25, 1997	1 Year
LISN	Com Power	LI-200	1764	January 3, 1998	1 Year
LISN	Com Power	LI-200	1771	January 3, 1998	1 Year
Biconical Antenna	Com Power	AB-100	1548	March 24, 1998	1 Year
Log Periodic Antenna	Com Power	AL-100	1012	February 13, 1998	1 Year
Computer	Hewlett Packard	HP98561A	2522A05178	N/A	N/A
Microwave Amplifier	Com-Power	PA-122	001	March 31, 1998	N/A
Horn Antenna	Antenna Research	DRG-118/A	1053	December 8, 1995	N/A
Loop Antenna	Com-Power	AL-130	25309	February 5, 1998	N/A
Plotter	Hewlett Packard	7440A	8726K38417	N/A	N/A
Horn Antenna	Antenna Research	MWH-1826/B	1004	December 5, 1994	N/A
Harmonic Mixer	Hewlett Packard	11970K	3003A05460	February 25, 1998	1 Year
Amplifier	Hewlett Packard	11975A	2403A00202	Nov. 12, 1997	1 Year
High-Pass Filter	Microwave Circuits, Inc.	H30G08G1	N/A	N/A	N/A



TABLE 2 LIST OF TEST EQUIPMENT FOR PROCESSING GAIN

EQUIPMENT TYPE	MANU- FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
Pattern Generator / Error Detector	Hewlett Packard	3780A	2224U02558	N/A	N/A
Signal Generator	Hewlett Packard	8648C	3443U00242	N/A	N/A
Pattern Generator / Error Detector	Hewlett Packard	3780A	1637U00244	N/A	N/A
Coaxial Direct Coupler	Narda	3003-20-01	005	N/A	N/A
Splitter	Mini Circuits	ZFSC-2- 2500	N/A	N/A	N/A
Power Meter	Hewlett Packard	437B	3125013310	N/A	N/A
Power Sensor	Hewlett Packard	8481H	3318A16294	N/A	N/A
Spectrum Analyzer	Hewlett Packard	8563E	N/A	N/A	N/A

11. TEST PROCEDURE

Conducted Test

Test Setup

The EUT was set up as a table top equipment as shown in Figure 1. The test data was collected using the Hewlett Packard spectrum analyzer Model: 8566B and the Hewlett-Packard quasi-peak adapter Model: 85650A.

The conducted test for the table top EUT was performed on a 1.0 by 1.5 meter wooden test table. (see Figure 1). The test bench has its top surface 0.8 meter above the ground plane. The EUT is powered through the Line Impedance Stabilization Network (LISN) bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up on the rear of the wooden test bench 40 cm away from the vertical conductive surface and at least 80 cm away from the LISNs as specified in ANSI C63.4 1992. The excess power cord was wrapped in a figure 8 pattern to form a bundle approximately 8 cms in length.

Preliminary Conducted Test

The initial test data was taken in manual mode to investigate the worst emission configuration. While scanning the frequencies in the ranges of 0.45 MHz to 1.6 MHz, 1.6 MHz to 5 MHz and 5 MHz to 30 MHz, the conducted emissions from the EUT were investigated for maximizing operating mode as well as cable placement. Once a predominant frequency (within 12 dB of the limit) was found, it was more closely examined with the spectrum analyzer span adjusted to 1 MHz.

Final Conducted Data

The EUT configuration was set for the highest emission frequency and data was collected under program control by the HP 9153B controller for the conducted test. The data was collected by the HP controller in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave.

The spectrum analyzer collected the maximum peak readings over each spectrum. The six highest emission levels and corresponding frequencies were sorted by the computer and are listed in Table 2.0.



Radiated Test

The open field test site of Compatible Electronics, Inc. was used for radiated emissions testing. This test site is set up according to the ANSI C63.4 1992 and the site attenuation data has been filed with the FCC. Figure 2 shows the layout of the open field test site. The turntable is remote controlled using a motor. The turn table supporting the EUT permits EUT rotation over 360 degrees to determine the highest emission levels. The antenna mast allows height variation of the antenna from 1 meter to 4 meters.

Preliminary Testing and Monitoring

Preliminary testing was done at a distance of 3 meters to determine the predominant frequencies from the system and to investigate the EUT configuration that produced the maximum levels of emissions. An open field test site was used for the preliminary investigations. Broad band antennas were used to scan large frequency bands while manipulating cables. All significant frequencies were further examined carefully at a reduced frequency span on the spectrum analyzer, while optimizing the cables, and changing the antenna height and EUT orientation. The EUT was tested at a 3 meter test distance to obtain final test data as described below.

Final Radiated Test

The receiving antenna was mounted on the antenna positioning mast, which is motor controlled and allows antenna height variation from 1 meter to 4 meters above the ground plane. The antenna height was varied to find the highest level of radiated emission at each frequency found during the preliminary test described above. The six highest emission readings and the corresponding frequencies for non-harmonic spurious emissions (excluding the fundamental) are listed in Table 3.0 for the base and Table 4.0 for the handset. The six highest emission readings and the corresponding frequencies for the fundamental and harmonics are listed in Table 5.0 for the helical antenna, Table 6.0 for the 0.6 meter dish antenna, and Table 7.0 for the 1.0 meter dish antenna.



Processing Gain

The Transmitting EUT was connected to the Network Interface Module. The Network Interface Module was connected to the Hewlett Packard 3780A Pattern Generator/Error Detector. 40 dB of attenuation was placed on the output of the base. The output of the Transmitting EUT was combined with the output of the signal generator through a combine. The Receiving EUT was connected to the Network Interface Module. The Network Interface Module was connected to the Hewlett Packard 3780A Pattern Generator/Error Detector. The signal generator was stepped in 426.666 kHz increments across the passband (± 12.8 MHz of the fundamental transmit frequency). The Bit Error Rate used was 0.0001%. When this error rate was achieved (displayed on the Pattern Generator/Error Detector), the reading of the signal generator was taken. This reading was then subtracted from the signal level of the Transmitting EUT (while adding in the combine loss and cable loss) to obtain the J/S ratio. The J/S ratio was then combined with the system loss (2 dB) and signal to noise ratio (13 dB) of the unit to obtain the processing gain. A figure of the test setup is shown in Figure 1a.

Transceiver Requirements Per Section 15.247 (FCC- Subpart C).

Both the handset and the base have a bandwidth of at least 500 kHz. The bandwidth is measured at the -TDB points. (Please see data sheets located in Appendix A.) [section 15.247 (a)(2)]

Both the handset and the base have a peak output power of less than 1 Watt (30 dBm) [section 15.247 (b)]

No radio frequency power that is produced by the modulation products of the spreading sequence, the information sequence and the carrier frequency is within 20 dB of the limit or exceeds the general radiated emission limits specified in section 15.209(a) while using a 100 kHz bandwidth. (Please see the data sheets located in Appendix A.) [section 15.247 (c)].

The spectral density output averaged over any 1 second interval using a resolution bandwidth of 3 kHz is not greater than 8dBm for both the handset and the base. (Please see data sheets located in Appendix A.) [section 15.247 (d)].

The processing gain of a direct sequence system is at least 10 dB. (Please see data sheets located in Appendix A) [section 15.247 (e)]

12. TEST RESULTS

Table 3.0 CONDUCTED EMISSION RESULTS
2.44 GHz RadioWire Modem
MODEL: RCC0001

Frequency MHz	Emission Level* dBuV	Specification Limit dBuV	Delta dB
.6455	43.1	48.0	-4.9
3.371	43.1	48.0	-4.9
4.193	43.1	48.0	-4.9
4.776	42.8	48.0	-5.2
9.745	42.8	48.0	-5.2
25.69	45.8#	48.0	-2.2

Table 4.0 RADIATED EMISSION RESULTS (SPURIOUS)
2.44 GHz RadioWire Modem
MODEL: RCC0001

Freq. MHz	Meter Reading dBuV	Effective Gain dB	Ant. Factor dB	Corr'd Reading dBuV	Spec Limit dBuV	Delta dB
48.55	60.60	38.41	11.50	33.69	40.00	-6.31
51.26	63.00	38.38	11.40	36.02	40.00	-3.98
76.86	61.30	37.69	9.11	32.72	40.00	-7.28
195.45	55.00	37.53	15.58	33.05	43.50	-10.45
600.01	58.10	35.50	18.70	41.30	46.00	-4.70
1689	53.90	28.20	24.50	50.20	54.00	-3.80

* Complete emissions data are given in Appendix A of this report.

** The effective gain factor includes the cable loss. The correction factors for the antenna and effective gain are attached in Appendix C of this report.

Quasi-Peak Reading

Table 5.0

RADIATED EMISSION RESULTS (HARMONICS)
2.44 GHz RadioWire Modem – Helical Antenna
MODEL: RCC0001

Freq. MHz	Meter Reading dBuV	Effective Gain dB	Ant. Factor dB	Corr'd Reading dBuV	Spec Limit dBuV	Delta DB
		NO	HARMONICS	FOUND		

Table 6.0

RADIATED EMISSION RESULTS (HARMONICS)
2.44 GHz RadioWire Modem – 0.6 Meter Dish Antenna
MODEL: RCC0001

Freq. MHz	Meter Reading dBuV	Effective Gain dB	Ant. Factor dB	Corr'd Reading dBuV	Spec Limit dBuV	Delta DB
4833	27.0#	21.3	32.3	38.0	54.0	-16.0
4887	30.3#	21.3	32.3	41.3	54.0	-12.7
4925	30.8#	21.3	32.3	41.8	54.0	-12.2
		NO	OTHER	HARMONICS	FOUND	

- * Complete emissions data are given in Appendix A of this report.
- ** The effective gain factor includes the cable loss. The correction factors for the antenna and effective gain are attached in Appendix C of this report.
- # Average Measurement based on 20*(log Duty Cycle %). The Duty Cycle is 50 %.

Table 7.0

RADIATED EMISSION RESULTS (HARMONICS)
2.44 GHz RadioWire Modem – 1.0 Meter Dish Antenna
MODEL: RCC0001

Freq. MHz	Meter Reading dBuV	Effective Gain dB	Ant. Factor dB	Corr'd Reading dBuV	Spec Limit dBuV	Delta DB
4833	35.5#	21.3	32.3	46.5	54.0	-7.5
4883	31.9#	21.3	32.3	42.9	54.0	-11.1
4922	29.2#	21.3	32.3	40.2	54.0	-13.8
7324	29.9#	20.6	36.8	46.1	54.0	-7.9
7386	30.8#	20.6	36.8	47.0	54.0	-7.0
		NO	OTHER	HARMONICS	FOUND	

- * Complete emissions data are given in Appendix A of this report.
- ** The effective gain factor includes the cable loss. The correction factors for the antenna and effective gain are attached in Appendix C of this report.
- # Average Measurement based on 20*(log Duty Cycle %). The Duty Cycle is 50 %.



13. SAMPLE CALCULATIONS

The use of the Com-Power Preamplifier Model: PA-102 and the Com Power Microwave Amplifier Model: PA-122 during the radiated emissions test requires that the effective gain must be subtracted from the spectrum analyzer (meter) reading. In addition, a correction factor for the antenna, amplifier, cable loss, and a distance factor, if any, must be applied to the meter reading before a true field strength reading can be obtained.

The equation can be derived in the following manner:

$$\frac{\text{Corrected}}{\text{meter reading}} = \text{meter reading} + F - G$$

where, F = antenna factor
 G = effective gain =
(amplifier gain-cable loss)

The correction factors for the antenna and the effective gain are attached in Appendix C of this report. The data sheets are attached in Appendix A.

There is no correction factor for the distance because the final data is always taken at 3 meters which is the FCC specification test distance.



14.

CONCLUSION

The 2.44 GHz RadioWire Modem Model: RCC0001 meets all of the specification limits defined in FCC Title 47, Part 15, Subpart C Section 15.247.

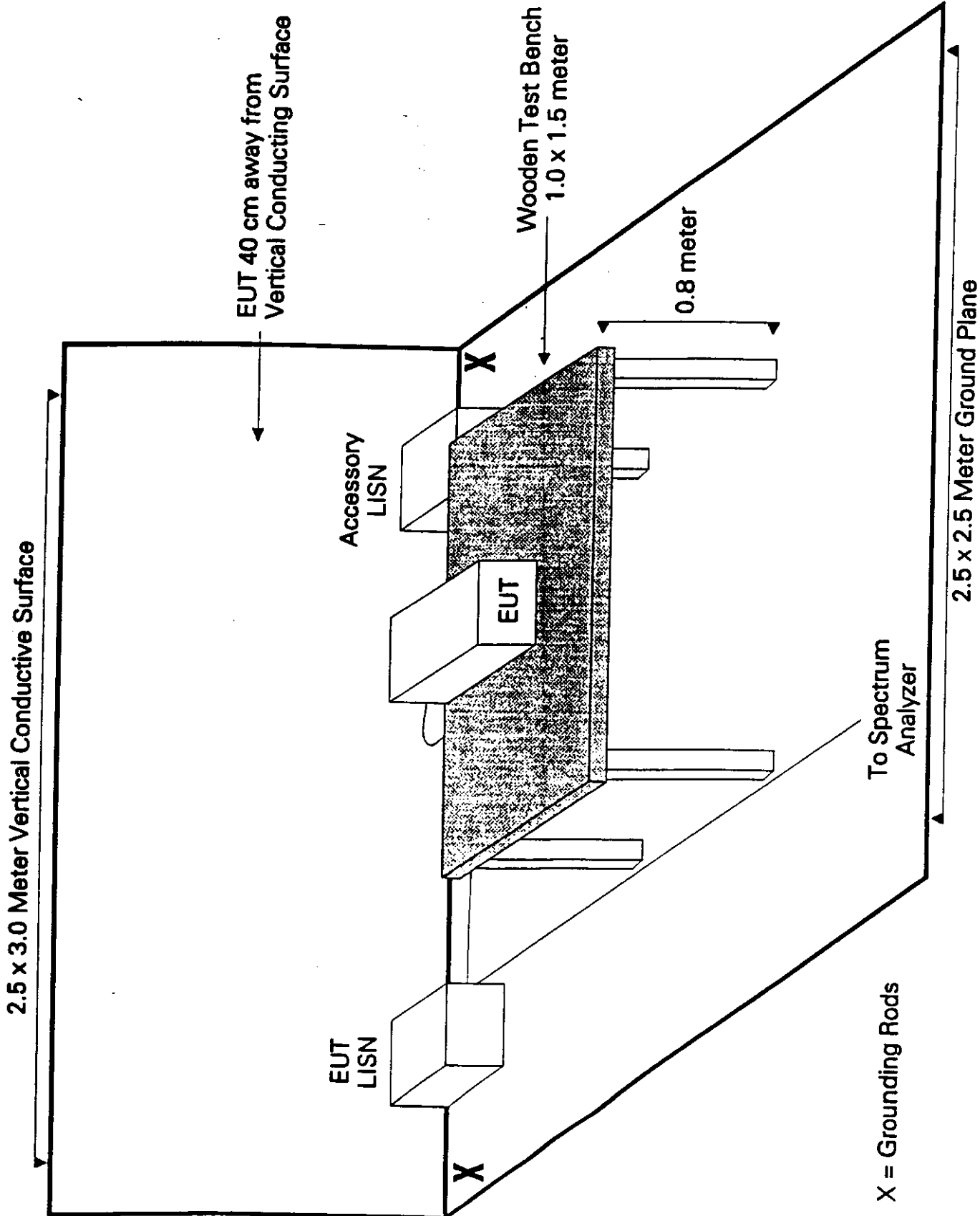


FIGURE 1 - CONDUCTED EMISSIONS TEST SETUP SITE D

FCC ID: NFX-RCC0001-00

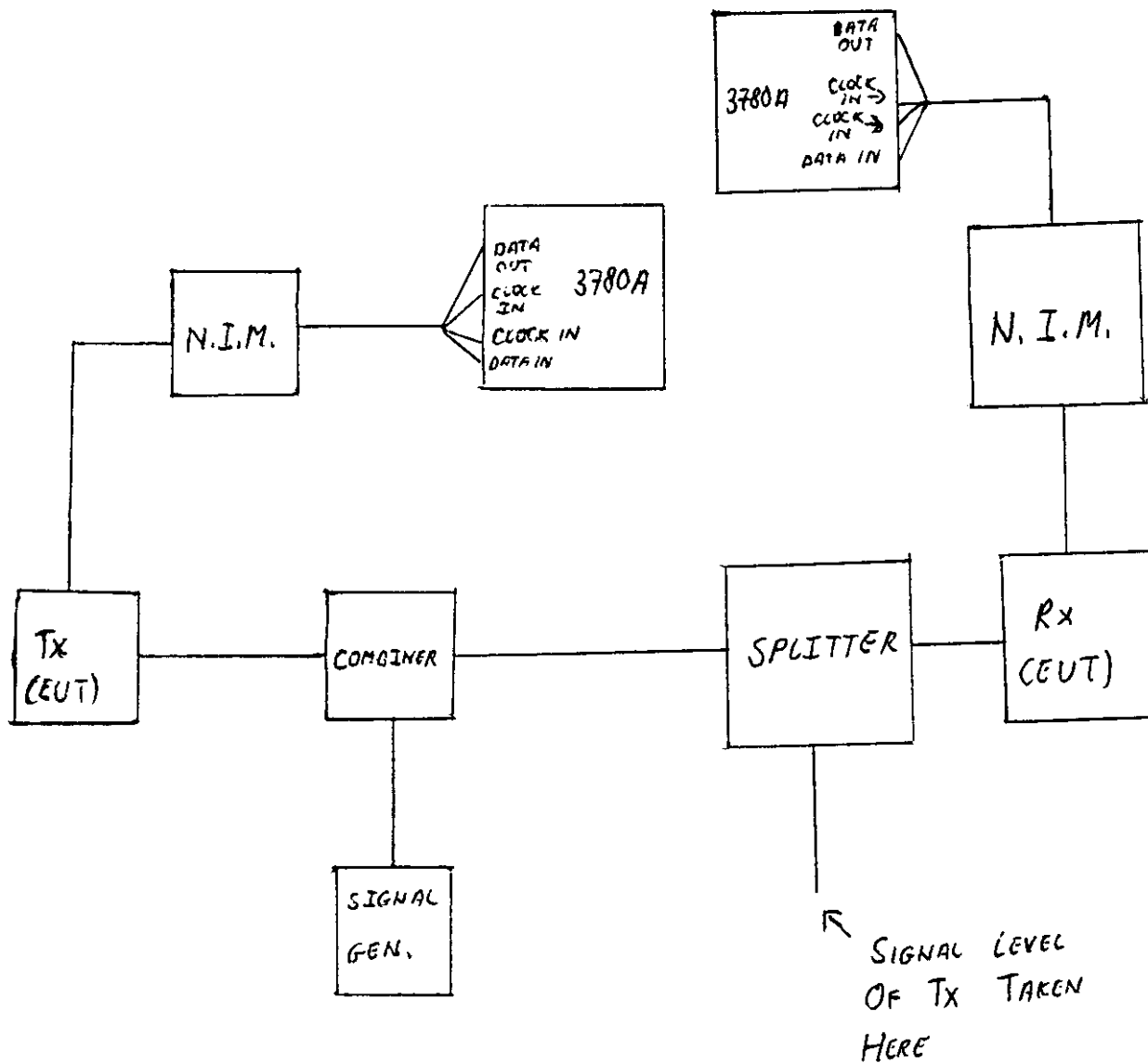


FIGURE 1a

3780 A = PATTERN GENERATOR / ERROR DETECTOR

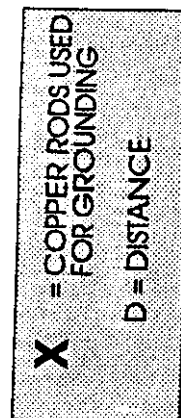


Figure 2: Plot Map and Layout of Test Site "D"



APPENDIX A

DATA SHEETS



SECTION 15.247 (a)(2)

BANDWIDTH AT -6dB POINTS

PAGE A3 - CHANNEL 1

PAGE A4 - CHANNEL 3

PAGE A5 - CHANNEL 5

41.18-48

h/p

BANDWIDTH OF CH. 1
REF 30.0 dBm ATTEN 50 dB

MKR Δ 13.00 MHz
-0.20 dB

10 dB/

DL
-10.0
dBm

MARKER Δ

13.00 MHz
-0.20 dB

-6dB

-6dB

FCC ID: NFX-RCC0001-00

CORR'D

CENTER 2.416 8 GHz
RES BW 100 KHz
VBW 300 KHz
SPAN 50.0 MHz
SWP 20.0 msec

4-18-98

MKR Δ 13.10 MHz
0.40 dB

BANDWIDTH OF CH. 3
REF 20.0 dBm ATTN 30 dB

HP

10 dB/

MARKER Δ

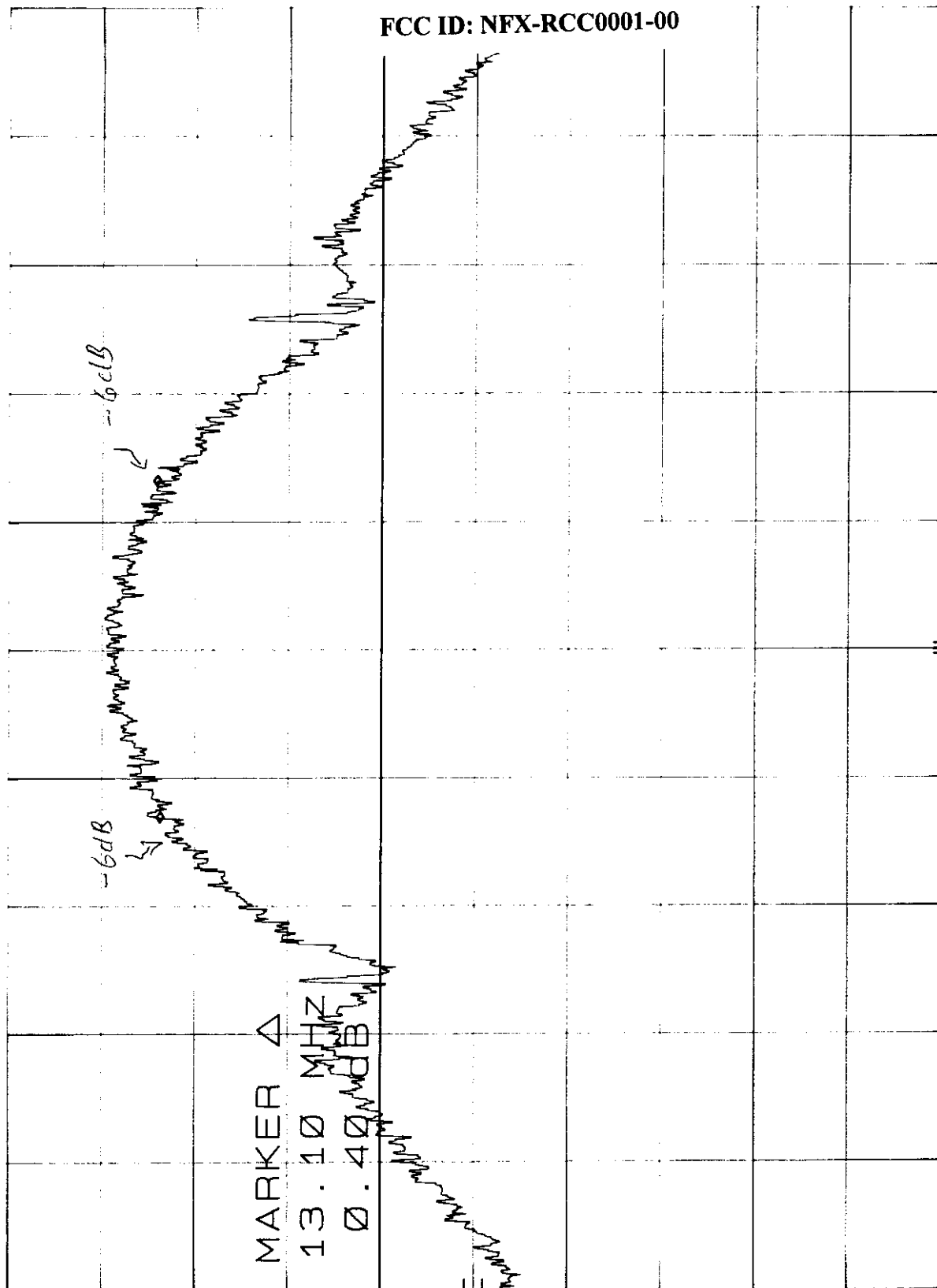
13.10 MHz

0.40 dB

DL

-20.0 dBm

FCC ID: NFX-RCC0001-00



CORR'D

SPAN 50.0 MHz
SWP 20.0 msec

VBW 300 KHz

CENTER 2.441 3 GHz
RES BW 100 KHz

4-18-98

BANDWIDTH OF CH. 5
REF 30.0 dBm ATTN 40 dB
MKR Δ 12.80 MHz
0.30 dB

70

10 dB/

MARKER Δ
12.80 MHz
0.30 dB

DL
-10.0
dBm

-6dB
-6dB

CORR'D

CENTER 2.462 3 GHz
RES BW 100 KHz
SPAN 50.0 MHz
SWP 20.0 msec
VBW 300 KHz



SECTION 15.247 (b)

POWER OUTPUT

PAGE A7 - CHANNEL 1

PAGE A8 - CHANNEL 3

PAGE A9 - CHANNEL 5

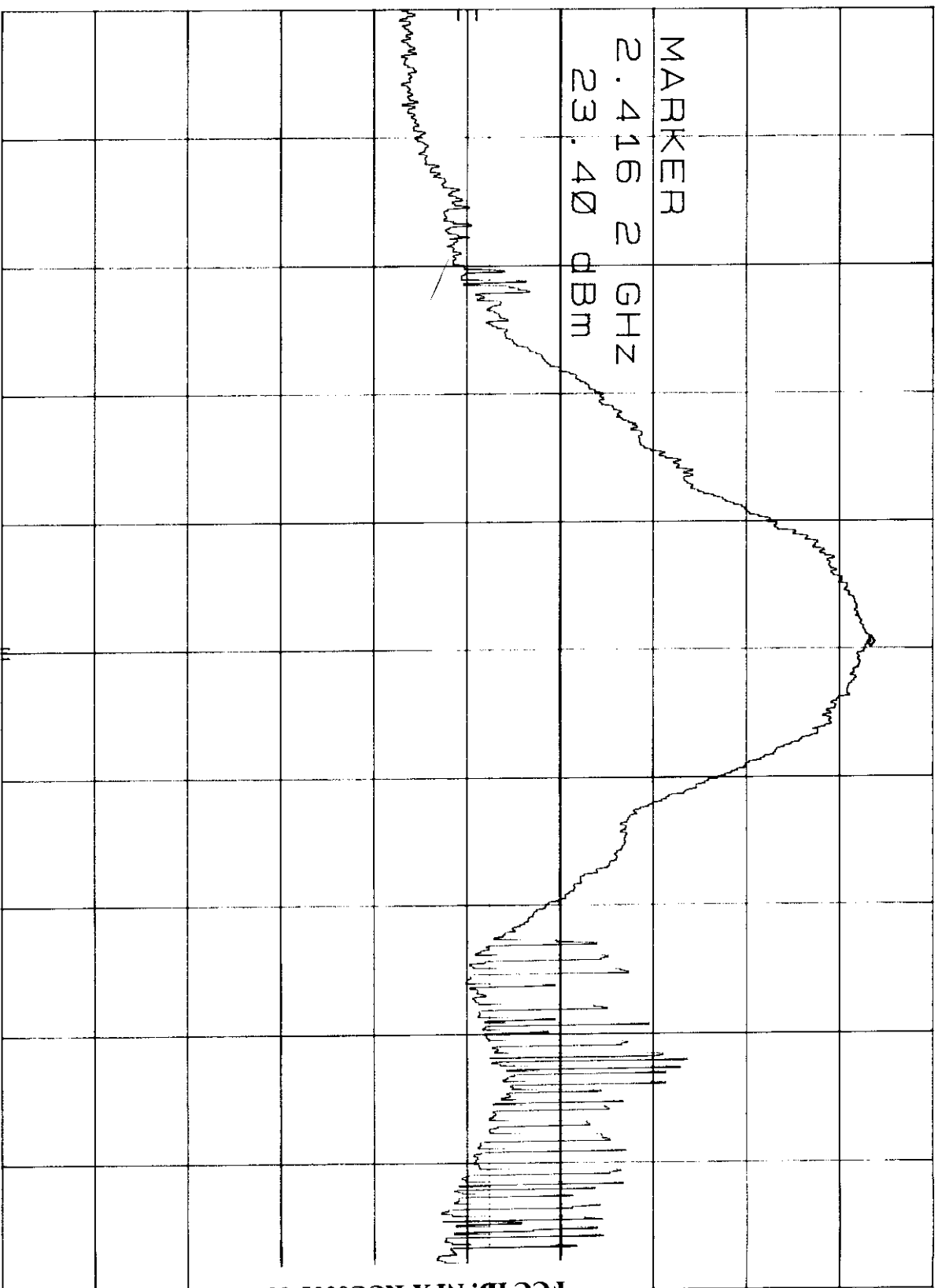
4-18-98

POWER OUTPUT OF CH. 1
hpf REF 30.0 dBm ATTEN 50 dB MKR 2.416 2 GHz
23.40 dBm

10 dB/

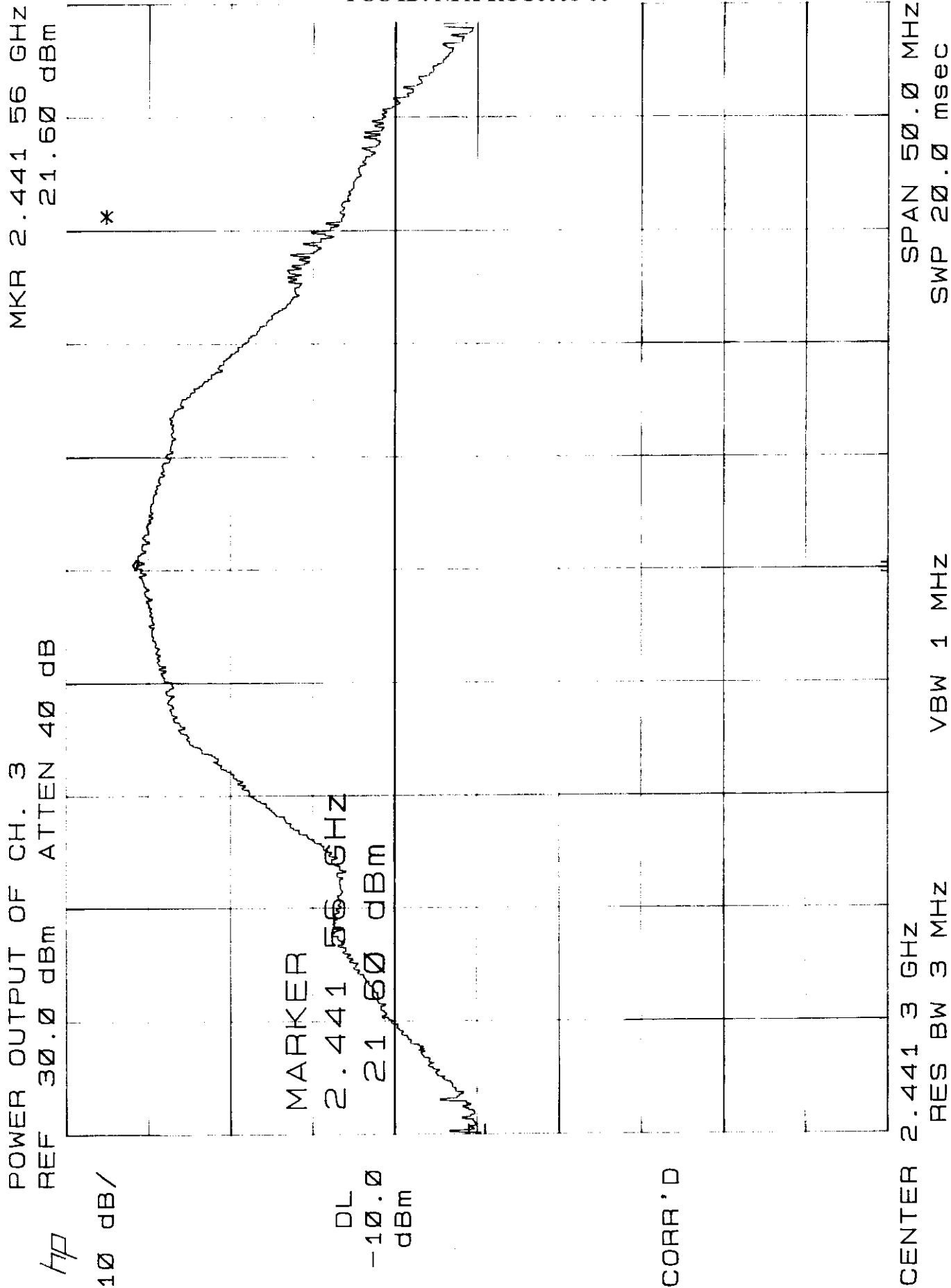
DL
-10.0
dBm

CORR'D



CENTER 2.416 GHz
RES BW 3 MHz
VBW 1 MHz
SPAN 100 MHz
SWP 20.0 msec

4-18-98



4-18-98

POWER OUTPUT OF CH. 5
MKR 2.462 36 GHz
REF 30.0 dBm
ATTEN 40 dB

h/p

10 dB/

MARKER
2.462 36 GHz
21.90 dBm

DL
-10.0
dBm

CORR'D

FCC ID: NFX-RCC0001-00

CENTER 2.462 3 GHz
RES BW 3 MHz
VBW 1 MHz

SPAN 50.0 MHz
SWP 20.0 msec

PAGE 19

SECTION 15.247 (d)

SPECTRAL DENSITY OUTPUT

PAGE A11 - CHANNEL 1

PAGE A12 - CHANNEL 3

PAGE A13 - CHANNEL 5

4-27-98

SPECTRAL DENSITY OUTPUT OF CH. 1

MKR 2.415 595 GHZ
4.40 dBm

hp

REF 30.0 dBm

ATTEN 40 dB

10 dB/

MARKER

2.415 595 GHZ

4.40 dBm

DL
8.0
dBm

FCC ID: NFX-RCC0001-00

CORR'D

CENTER 2.415 59 GHZ

RES BW 3 KHZ

VBW 10 KHZ

SPAN 4.50 MHZ
SWP 1.50 Ksec

PAGE All

4-27-98

HP SPECTRAL DENSITY OUTPUT OF CH. 3
REF 30.0 dBm ATTEN 40 dB
MKR 2.440 522 GHz
-0.20 dBm

HP

10 dB/

MARKER

2.440 522 GHz
-0.20 dBm

DL
8.0
dBm

CORR'D

FCC ID: NFX-RCC0001-00

PAGE 112
SPAN 4.50 MHz
SWP 1.50 Ksec

VBW 10 KHz

CENTER 2.442 48 GHz
RES BW 3 KHz

4-27-98

SPECTRAL DENSITY OUTPUT OF CH1 5

REF 30.0 dBm ATTEN 40 dB

HP

10 dB/

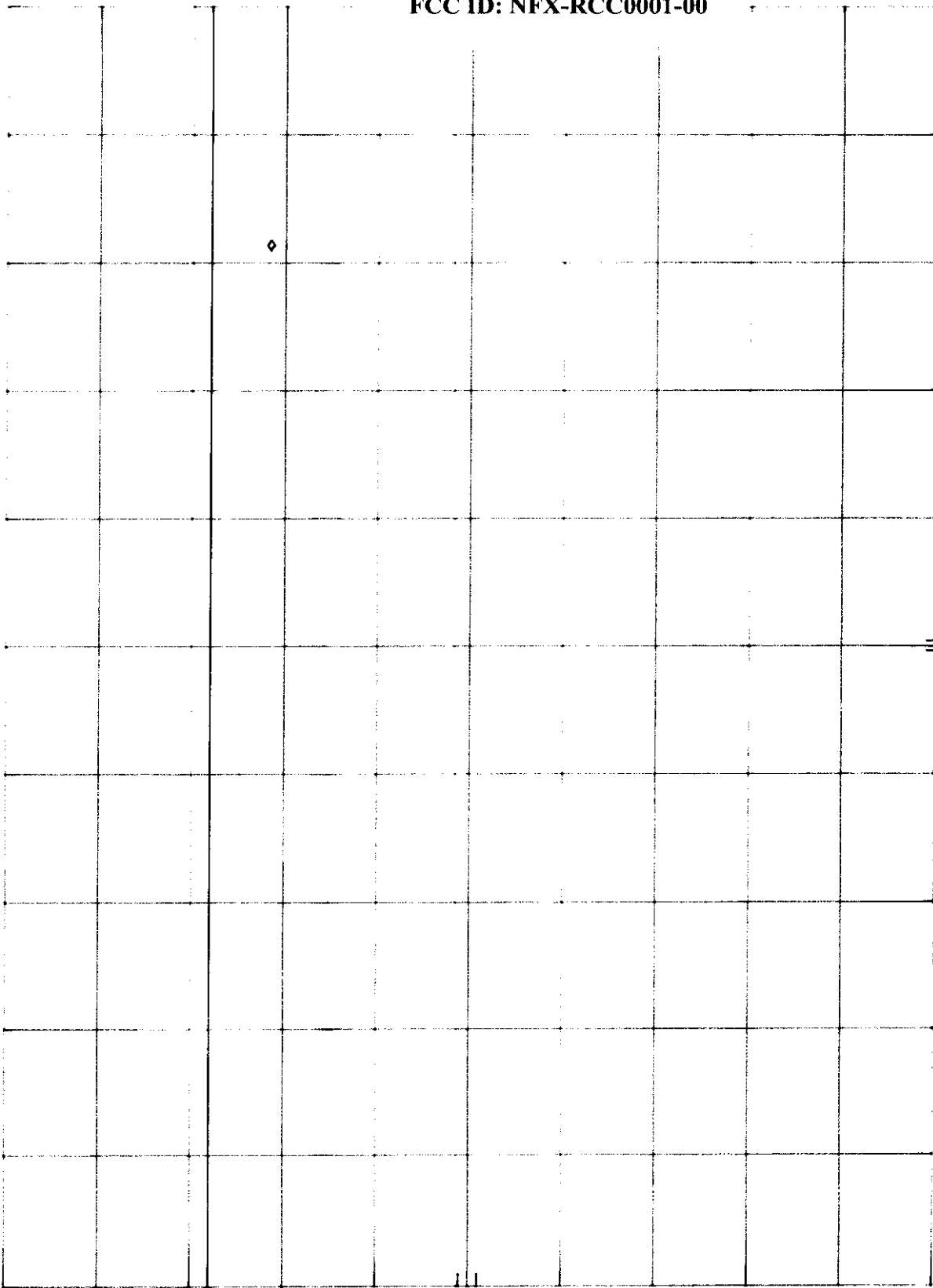
+8.0
dBm →

CORR'D

CENTER 2.460 58 GHz
RES BW 3 KHz

VBW 10 KHz

SPAN 5.00 MHz
SWP 1.50 Ksec





SECTION 15.247 (c)

RF ANTENNA CONDUCTED EMISSIONS TEST

PAGES A15-A19 - CHANNEL 1

PAGES A20-A23 - CHANNEL 3

PAGES A24-A28 - CHANNEL 5

4-18-98

RF ANT. COND. TEST OF CH. 5 2MHZ-2GHZ MKR 1.059 GHZ
REF 30.0 dBm ATTN 40 dB -43.20 dBm
h_p 10 dB/ *

DL
-9.5
dBm

MARKER
1.059 GHZ

-43.20 dBm

FCC ID: NFX-RCC0001-00

CORR'D

RF ANT. COND. TEST OF CH. 5 2MHZ-2GHZ MKR 1.059 GHZ
REF 30.0 dBm ATTN 40 dB -43.20 dBm

START 2 MHZ

RES BW 100 KHz

VBW 300 KHz

STOP 2.00 GHZ

SWP 599 msec

4-18-98

RF ANT. COND. TEST OF CH. 1 2GHZ-10GHZ MKR 2.408 GHZ
REF 30.0 dBm ATTN 50 dB 10.50 dBm

hp

10 dB/

DISPLAY LINE

-9.5 dBm

DL
-9.5
dBm

FCC ID: NFX-RCC0001-00

measured level below 2.408 GHz is approximately -10 dBm

CORR'D

START 2.00 GHZ RES BW 100 KHZ STOP 10.00 GHZ
SWP 2.40 sec VBW 300 KHZ

FCC ID: NFX-RCC0001-00

4 18-78

RF ANT. COND. TEST OF CH. 1 10GHZ-20GHZ
REF 30.0 dBm MKR 19.60 GHZ
ATTEN 50 dB -21.70 dBm

HP

10 dB/

MARKER

19.60 GHZ

-21.70 dBm

DL
-9.5
dBm

CORR'D

START 10.0 GHZ
RES BW 100 KHZ
STOP 20.0 GHZ
SWP 3.00 sec

VBW 300 KHZ

4-10-98

RF ANT. COND. TEST OF CH. 1 20GHZ-26GHZ MKR 23.672 GHZ
REF 1.6 dBm HARMONIC 6L -73.20 dBm

hp

10 dB/

CNVLOSS

22.0

dB

DL

-9.5

dBm

MARKER

23.672 GHZ

-73.20 dBm

FCC ID: NFX-RCC0001-00

PAGE 108

START 20.00 GHZ STOP 26.00 GHZ
RES BW 100 KHZ SWP 1.80 sec
VBW 300 KHZ

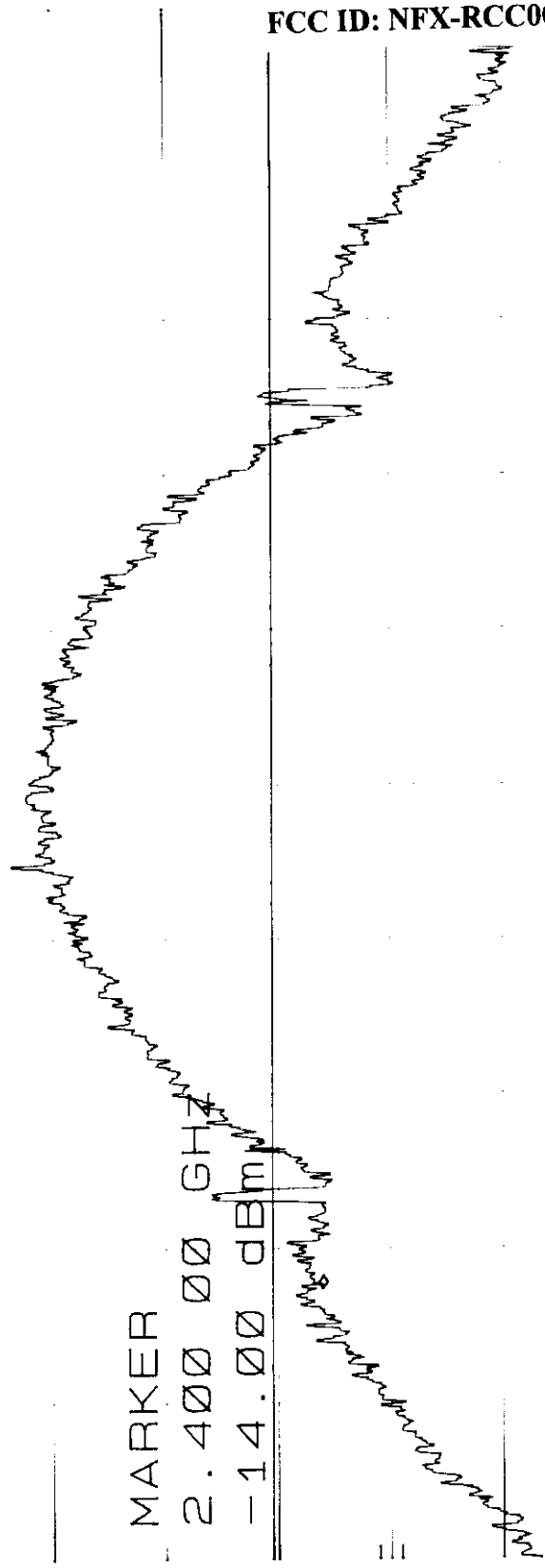
4-18-98

BAND EDGE OF CH. 1
REF 30.0 dBm ATTN 40 dB

MKR 2.400 00 GHz
-14.00 dBm

hp

10 dB/



MARKER

2.400 00 GHz

-14.00 dBm

DL
-9.5
dBm

FCC ID: NFX-RCC0001-00

CORR'D

CENTER 2.416 0 GHz
RES BW 100 KHz

VBW 300 KHz

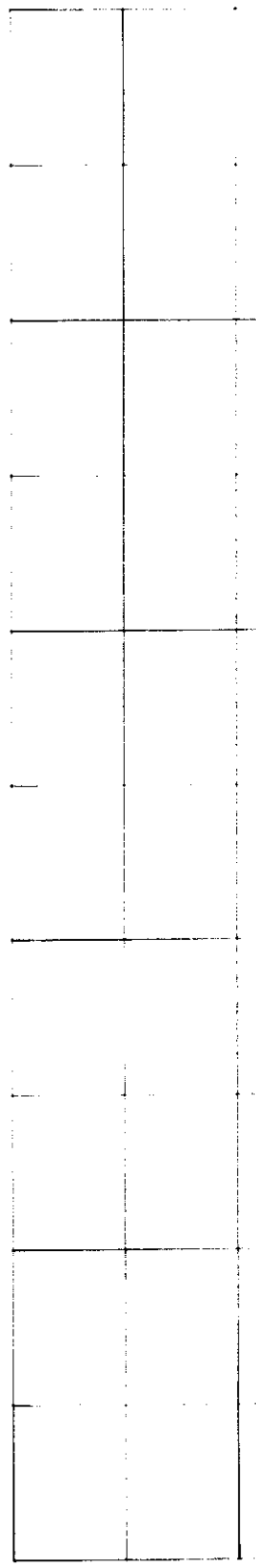
SPAN 50.0 MHz
SWP 20.0 msec

4-18-98

RF ANT. COND. TEST OF CH. 3 2MHZ-2GHZ MKR 863 MHZ
REF 30.0 dBm ATTN 50 dB -36.50 dBm

HP

10 dB/

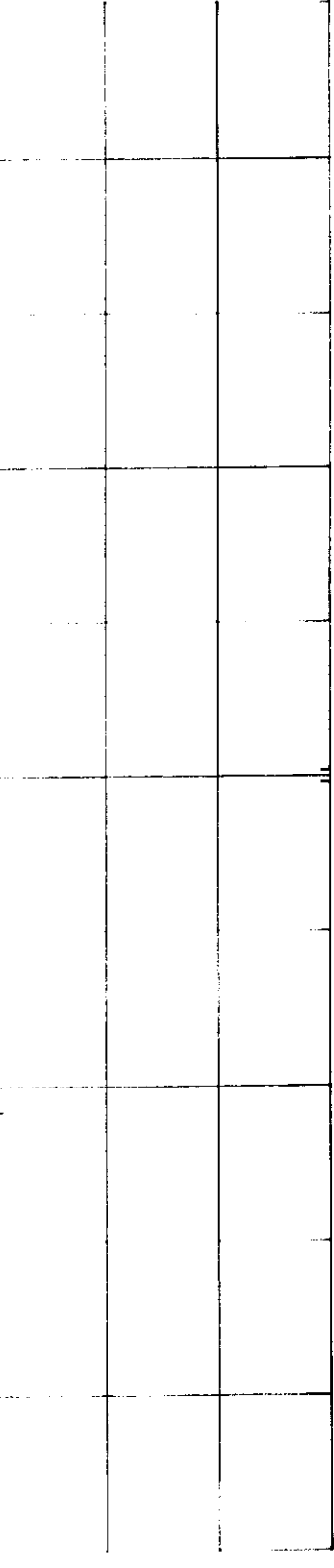


MARKER

DL 863 MHZ
-12.2 -36.50 dBm
dBm

FCC ID: NFX-RCC0001-00

CORR'D



START 2 MHZ RES BW 100 KHZ VBW 300 KHZ STOP 2.00 GHZ
SWP 599 msec

4-18-98

RF ANT. COND. TEST OF CH. 3 2GHZ-10GHZ
REF 30.0 dBm ATTN 50 dB

MKR 2.432 GHZ
7.80 dBm

HP

10 dB/

MARKER

2.432 GHZ
7.80 dBm

DL
-12.2
dBm

FCC ID: NFX-RCC0001-00

Handwritten notes and markings on the graph grid, including a vertical line and some illegible text.

CORR'D

PAGE 6 A21

START 2.00 GHZ RES BW 100 KHZ VBW 300 KHZ STOP 10.00 GHZ SWP 2.40 sec

RF ANT.	COND.	TEST OF CH.	3	10GHZ-20GHZ	MKR 19.79 GHz
RFF	30.0 dBm	ATTEN	50 dB		-21.70 dBm

10 dB/

FCC ID: NFX-RCC0001-00

DL	MARKER
-12.2	19.79 GHz
dBm	-21.70 dBm

1

1899. Mr. John C. Smith, Jr., of the same firm, was elected President of the Association. Mr. Smith was elected President of the Association in 1899.

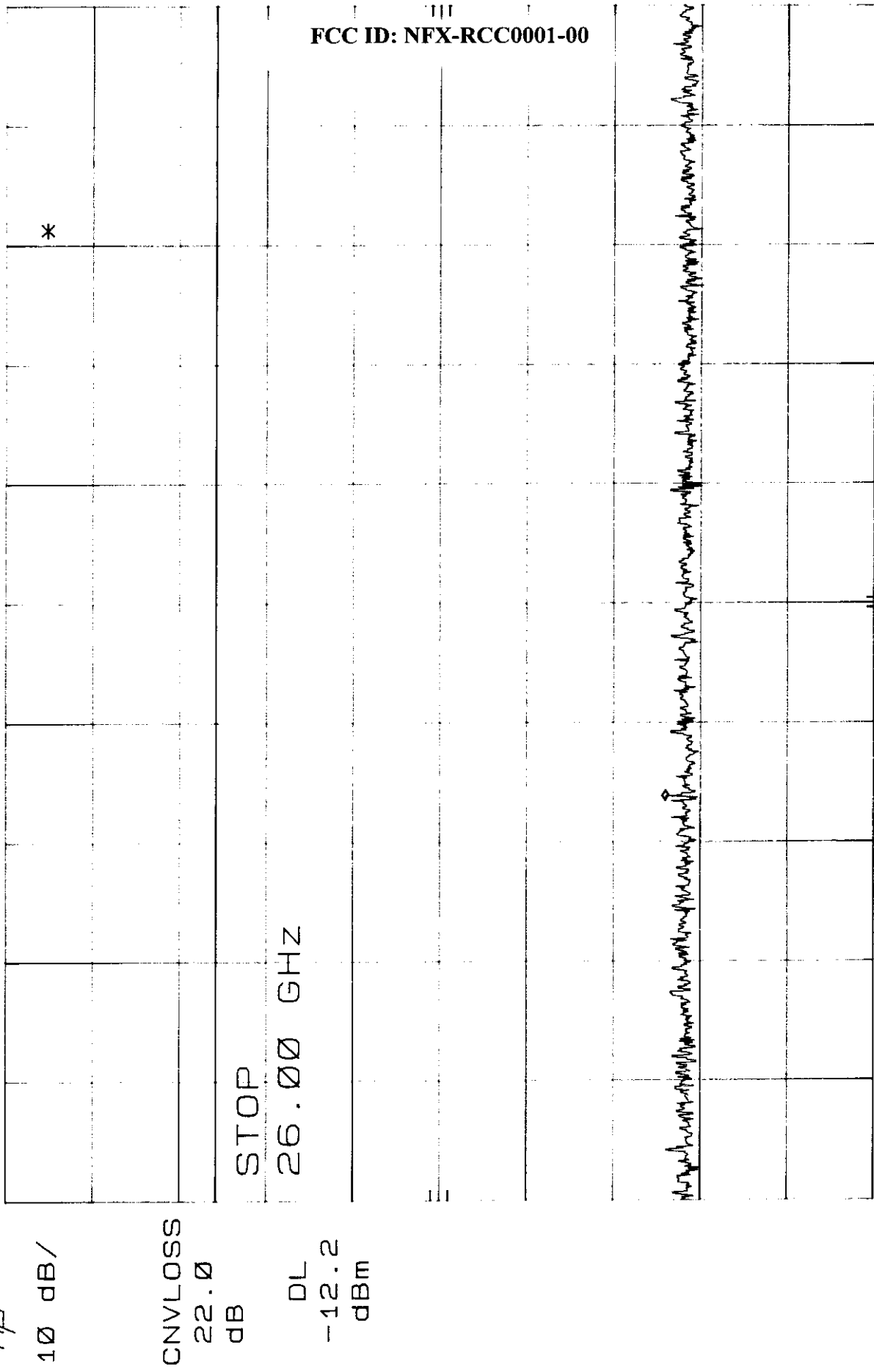
CORR'D

PAGE 122

START 10.0 GHZ	STOP 20.0 GHZ
RES BW 100 KHZ	SWP 3.00 sec
	VBW 300 KHZ

4-18-98

RF ANT. COND. OF CH. 3 20GHZ-26GHZ MKR 20.941 GHZ
HP REF 12.0 dBm HARMONIC 6L -64.00 dBm



FCC ID: NFX-RCC0001-00

START 20.00 GHZ
RES BW 100 KHZ
STOP 26.00 GHZ
SWP 1.80 sec
VBW 300 KHZ

4-18-98

RF ANT. COND. TEST OF CH. 5 2MHZ-2GHZ
REF 30.0 dBm ATTN 40 dB

MKR 951 MHZ
-44.00 dBm

hp

10 dB/

MARKER

951 MHZ

-44.00 dBm

DL
-12.5
dBm

FCC ID: NFX-RCC0001-00

CORR'D

RF ANT. COND. TEST OF CH. 5 2MHZ-2GHZ
REF 30.0 dBm ATTN 40 dB
MKR 951 MHZ
-44.00 dBm

START 2 MHZ

RES BW 100 KHZ

VBW 300 KHZ

STOP 2.00 GHZ

SWP 599 msec

PAGE 424

4-18-98

RF ANT. COND. TEST OF CH. 5 2GHz-10GHz
REF 30.0 dBm ATTEN 40 dB

MKR 2.456 GHz
7.50 dBm

hpd
10 dB/

DL
-12.5
dBm

DISPLAY LINE
-12.5 dBm

FCC ID: NFX-RCC0001-00

CORR'D



START 2.00 GHz RES BW 100 KHZ VBW 300 KHZ STOP 10.00 GHz
SWP 2.40 sec

4-18-96

RF ANT. COND. TEST OF CH. 5 100GHZ-200GHZ MKR 19.82 GHz
hpd REF 30.0 dBm ATTEN 40 dB -31.50 dBm

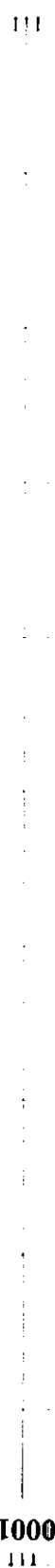
10 dB/



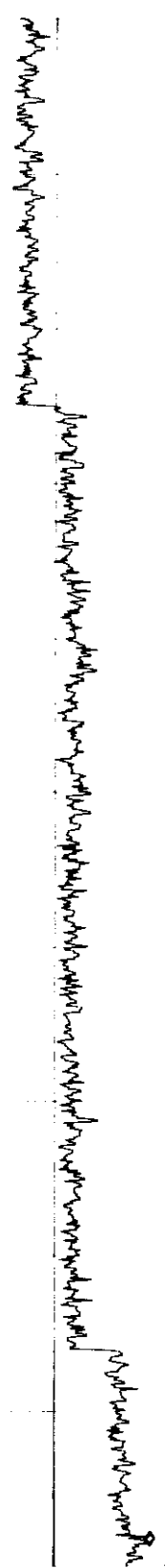
MARKER

DL 19.82 GHz

-12.5 dBm
-31.50 dBm



CORR'D



START 10.0 GHz RES BW 100 KHZ VBW 300 KHZ STOP 20.0 GHz
SWP 3.00 sec

FCC ID: NFX-RCC0001-00

4-18-98

RF ANT. TEST OF CH. 5 20GHZ-26GHZ
HARMONIC 6L

MKR 23.450 GHZ
-74.30 dBm

HP

REF 0.0 dBm

10 dB/

CNVLOSS

22.0

dB

MARKER

23.450 GHZ

-74.30 dBm

DL

-12.5

dBm

FCC ID: NFX-RCC0001-00

Handwritten notes and spectral plot data across the main grid area.

START 20.00 GHZ

RES BW 100 KHZ

VBW 300 KHZ

STOP 26.00 GHZ

SWP 1.80 sec

4-18-98

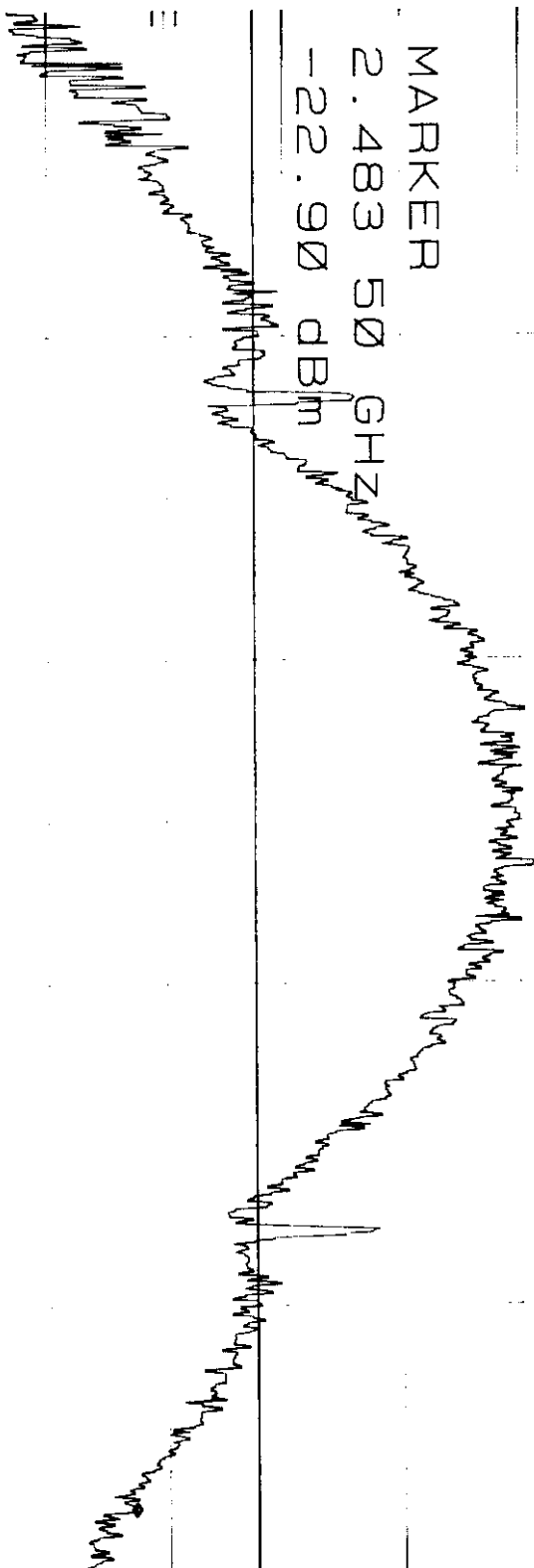
BAND EDGE OF CH. 5
REF 30.0 dBm ATTN 40 dB

MKR 2.483 50 GHz
-22.90 dBm

10 dB/

DL
-12.5
dBm

MARKER
2.483 50 GHz
-22.90 dBm



FCC ID: NFX-RCC0001-00

CORR'D

CENTER 2.462 3 GHz
RES BW 100 KHZ

VBW 1 MHZ

SPAN 50.0 MHz
SWP 20.0 msec



SECTION 15.247 (c)

RADIATED EMISSIONS

Test location: Compatible Electronics
 Customer : RADIOCONNECT CORPORATION
 Manufacturer : RADIOCONNECT CORPORATION
 EUT name : 2.44 GHZ RADIO WIRE MODEM
 Specification: FCC_B Test distance: 3.0 mtrs
 Distance correction factor(20*log(test/spec)) : 0.00
 Test Mode :
 SPURIOUS EMISSIONS
 TEMPERATURE 64 DEGREES F.
 RELATIVE HUMIDITY 67%

Pol	Freq	MHz	Rdng	dbuv	Cable	loss	Ant	gain	Cor'd	limit	Delta
					db	db	db	db	dbuv	= L	R-L
1V	48.55		60.60	0.59	11.50	39.00	33.69	40.00	-6.31		
2V	51.26		63.00	0.61	11.40	38.99	36.02	40.00	-3.98		
3V	76.86		61.30	0.70	9.11	38.39	32.72	40.00	-7.28		
4V	111.43		53.80	0.95	10.39	38.73	26.40	43.50	-17.10		
5V	122.74		56.30	0.99	11.06	38.95	29.40	43.50	-14.10		
6V	171.29		50.10	1.37	14.48	38.60	27.35	43.50	-16.15		
7V	305.24		45.00	1.81	14.02	38.63	22.20	46.00	-23.80		
8V	355.34		40.30	1.91	14.81	38.84	18.18	46.00	-27.82		
9V	429.09		41.90	2.12	17.28	38.33	22.97	46.00	-23.03		
10V	447.83		46.60	2.19	15.60	38.21	26.17	46.00	-19.83		
11V	614.49		43.60	3.12	18.93	38.53	27.12	46.00	-18.88		

Test location: Compatible Electronics
 Customer : RADIOCONNECT CORPORATION
 Manufacturer : RADIOCONNECT CORPORATION
 EUT name : 2.44 GHZ RADIOWIRE MODEM
 Specification: Fcc_B Test distance: 3.0 mtrs
 Distance correction factor($20 \cdot \log(\text{test}/\text{spec})$) : 0.00
 Test Mode :
 SPURIOUS EMISSIONS
 TEMPERATURE 64 DEGREES F.
 RELATIVE HUMIDITY 67%

Date : 4/28/1998
 Time : 9.13
 Model: RCC0001
 Lab: D

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
1H	43.25	54.50	0.53	11.50	39.00	27.53	40.00	-12.47
2H	51.31	58.00	0.61	11.40	38.99	31.02	40.00	-8.98
3H	76.87	60.80	0.70	9.11	38.39	32.22	40.00	-7.78
4H	118.08	51.00	0.97	10.79	38.86	23.90	43.50	-19.60
5H	133.22	56.30	1.07	12.05	38.87	30.55	43.50	-12.95
6H	195.45	55.00	1.40	15.58	38.93	33.05	43.50	-10.45
7H	223.86	49.00	1.40	16.37	38.71	28.06	46.00	-17.94
8H	311.86	49.60	1.82	14.05	38.67	26.80	46.00	-19.20
9H	320.77	53.90	1.84	14.08	38.72	31.10	46.00	-14.90
10H	340.83	53.10	1.88	14.16	38.84	30.30	46.00	-15.70
11H	528.05	46.50	2.72	16.26	38.36	27.12	46.00	-18.88
12H	600.01	58.10	3.00	18.70	38.50	41.30	46.00	-4.70
13H	660.08	40.00	3.42	19.82	38.48	24.76	46.00	-21.24
14H	742.52	40.90	3.76	23.23	38.17	29.71	46.00	-16.29
15H	855.27	44.60	4.19	23.12	38.04	33.87	46.00	-12.13

COMPATIBLE
ELECTRONICS

FCC ID: NFX-RCC0001-00

PAGE 1 of 2

PAGE 1 of 2

RADIATED EMISSIONS

COMPANY NAME: RADIOCONNECT CORPORATION DATE: 4-16-98EUT: 2.44 GHz RADIO WIRE MODEM EUT S/N: PROTOTYPEEUT MODEL: RCC0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURASPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3M LAB: DANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN POLARIZATION: ☒ VERT ☐ HORIZ☒ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: Kyle F.NOTES: SPURIOUS EMISSIONS ABOVE 1GHz

Frequency (GHz)	Peak Reading (dBuV)	Average Reading (dBuV)	Antenna Height (meters)	Azimuth (degrees)	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	* Corrected Reading (dBuV)	Delta ** (dB)	Spec Limit (dBuV)
1.049	48.1	-	1.0	0	22.3	5.6	33.0	41.0	-13.0	54.0
1.115	40.2	-	1.0	0	22.3	3.7	33.0	33.2	-20.8	54.0
1.257	41.8	-	1.0	0	22.3	4.2	32.9	35.0	-18.6	54.0
1.592	55.4	48.4	1.0	0	24.5	4.8	33.0	44.7	-9.3	54.0
1.689	53.8	-	1.0	0	24.5	4.8	33.0	50.1	-3.9	54.0
1.882	64.2	57.2	1.0	0	24.5	5.2	32.9	54.5		
2.111	57.4	50.4	1.0	0	26.7	4.8	33.1	48.8		
3.148	60.2	53.2	1.0	0	29.7	6.4	32.4	56.9		

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = CORRECTED READING - SPECIFICATION LIMIT

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600

**COMPATIBLE
ELECTRONICS**

FCC ID: NFX-RCC0001-00

PAGE 2 of 2

PAGE A33

RADIATED EMISSIONSCOMPANY NAME: RADIO CONNECT CORPORATION DATE: 4-16-78EUT: 2.44 GHz RADIO WIRE MODEM EUT S/N: PROTOTYPEEUT MODEL: RCC0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURASPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3M LAB: DANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN POLARIZATION: ☐ VERT ☒ HORIZ☒ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: Kyle ENOTES: SPURIOUS EMISSIONS ABOVE 16-MHz.

Frequency (GHz)	Peak Reading (dBuV)	Average Reading (dBuV)	Antenna Height (meters)	Azimuth (degrees)	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	* Corrected Reading (dBuV)	Delta ** (dB)	Spec Limit (dBuV)
1.049	47.4	-	1.0	90	22.3	3.6	33.0	40.3	-13.7	54.0
1.115	37.5	-	1.0	0	22.3	3.7	33.0	30.5	-23.5	54.0
1.257	36.2	-	1.0	0	22.3	4.2	32.9	29.8	-24.2	54.0
1.400	45.2	-	1.0	0	22.3	4.4	32.8	39.1	-14.9	54.0
1.592	55.7	48.7	1.0	0	24.5	4.8	33.0	45.0	-9.0	54.0
1.689	53.9	-	1.5	0	24.5	4.8	33.0	50.2	-3.8	54.0
1.882	80.9	73.9	1.0	0	24.5	5.7	32.9	71.2		
2.111	61.1	54.1	1.0	0	26.7	4.8	33.1	52.5		

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = CORRECTED READING - SPECIFICATION LIMIT

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600



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PAGE TWO

COMPANY NAME: RADIO CONNECT CORPORATION DATE: 4-16-98
EUT: 2.44GHZ RADIO WIRE MODEM EUT S/N: PROTOTYPE
EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA
SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3 m LAB: D
ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN POLARIZATION: ☐ VERT ☒ HORIZ
☒ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: Kyle F.
NOTES: 14dB1 - CIRCULAR POLARIZED HORIZONTAL MIDDLE
CHANNEL

[illegible]

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

AGOURA (818) 597-0600



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COMPANY NAME: RADIO CONNECT CORPORATION DATE: 4-16-98

EUT: 2.44GHZ RADIO WIRE MOBILE EUT S/N: PROTOTYPE

EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3m LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN **POLARIZATION:** VERT ☒ HORIZ

■ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: *Kyle F.*

NOTES: 14dB - CIRCULAR POLARIZED HORIZONTAL
T COM LOW
CHANNEL

[illegible]

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

AGOURA (818) 597-0600



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COMPANY NAME: RADIO CONNECT CORPORATION DATE: 4-16-78

EUT: 2.44 GHz RADIO WIRE MODEM EUT S/N: PROTOTYPE

EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3m LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN **POLARIZATION:** ☒ VERT ☐ HORIZ

■ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: Kyle F.

NOTES: 14dB; - CIRCULAR POLARIZED HELICAL HIGH
T COM CHANNEL

[illegible]

* **CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN**

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600



COMPANY NAME: RADIO CONNECT CORPORATION DATE: 4-16-98

EUT: 2.44GHz RadioWire Modem EUT S/N: Prototype

EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3M LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN **POLARIZATION:** ☐ VERT ☒ HORIZ

☒ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: Kyle E.

NOTES: 1000 - CIRCULAR POLARIZED HELICAL HIGH
T COM CHANNEL

[illegible]

* **CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN**

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600



**COMPATIBLE
ELECTRONICS**

FCC ID: NFX-RCC0001-00

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RADIATED EMISSIONS

COMPANY NAME: RADIOCONNECT CORPORATION DATE: 4-18-98

EUT: 2.44 GHz RADIO WIRE MODEM EUT S/N: PROTOTYPE

EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3 M LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN POLARIZATION: ☒ VERT ☐ HORIZ

☒ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: Kyle F.

NOTES: 20 dB - HORN BACKFIRE CIRCULAR POLARIZED LOW
0.6 M PARABOLIC REFLECTOR T-COM CHANNEL

Frequency (GHz)	Peak Reading (dBuV)	Average Reading (dBuV)	Antenna Height (meters)	Azimuth (degrees)	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	* Corrected Reading (dBuV)	Delta ** (dB)	Spec Limit (dBuV)
2.416	125.1	118.1	1.0	0	28.2	5.5	32.7	119.1	-	-
4.833	33.9	26.9	1.0	0	32.3	10.3	31.6	37.9	-16.1	54.0

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = CORRECTED READING - SPECIFICATION LIMIT

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600



FCC ID: NFX-RCC0001-00

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RADIATED EMISSIONS

COMPANY NAME: RADIOCONNECT CORPORATION DATE: 4-18-98

EUT: 2.44 GHz Radio Wire Modem EUT S/N: Prototype

EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: _____ TEST DISTANCE: 3M LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN POLARIZATION: ☒ VERT ☐ HORIZ

■ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: *Kyle F.*

NOTES: 20 dB - HELICAL BACKFIRE CIRCULAR POLARIZED MIDDLE
0.6M PARABOLIC REFLECTOR T-COM CHANNELS

[illegible]

* **CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN**

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600



RADIATED EMISSIONS

COMPANY NAME: RADIO CONNECT CORPORATION DATE: 4-18-88

EUT: 2.44 GHz RAILGIRL Modem EUT S/N: PROTOTYPE

EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3M LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN **POLARIZATION:** ☐ VERT ☒ HORIZ

■ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT **ENGINEER:** *Kyle F.*

NOTES: 20dB/- HELICAL BACKFIRE CIRCULAR POLARIZED MIDDLE
0.6M PARABOLIC REFLECTOR T-COM CHANNEL

[illegible]

*** CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN**

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

AGOURA (818) 597-0600



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RADIATED EMISSIONS

COMPANY NAME: RADIO CONNECT CORPORATION DATE: 4-18-78

EUT: 2.44 GHz RADIOFREQUENCY MODEM EUT S/N: PROTOTYPE

EUT MODEL: RCC 0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3M LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN POLARIZATION: ☒ VERT ☐ HORIZ

■ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: *Kyle F.*

NOTES: 24dB1

1 METER DISH ANT
CIRCULAR POLARIZATION
T-COM

MIDDLE
CHANNEL

[illegible]

• **CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN**

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600

RADIATED EMISSIONS

COMPANY NAME: RADIOCONNECT CORPORATION DATE: 4-18-98

EUT: 2.44 GHz Radiowire Modem EUT S/N: PROTOTYPE

EUT MODEL: RCC0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3M LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN POLARIZATION: ☐ VERT ☒ HORIZ

☒ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: Kyle F.

NOTES: 24dB 1 METER DISH ANT MIDDLE
CIRCULAR POLARIZATION (HORIZONTAL)
7-COM

Frequency (GHz)	Peak Reading (dBuV)	Average Reading (dBuV)	Antenna Height (meters)	Azimuth (degrees)	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	* Corrected Reading (dBuV)	Delta ** (dB)	Spec Limit (dBuV)
2.441	125.0	119.0	2.0	0	28.1	5.5	32.7	120.0	-	-
4.883	38.9	31.9	2.0	0	32.3	10.3	31.6	42.9	-11.1	54.0
7.324	35.9	29.9	1.0	0	36.8	11.4	32.0	46.1	-7.9	54.0
			NO	OTHER	HARMONICS	FOUND				

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = CORRECTED READING - SPECIFICATION LIMIT

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600



RADIATED EMISSIONS

COMPANY NAME: RADIO CONNECT CORPORATION DATE: 4-18-98

EUT: 2.44 GHz RACONWIRE Modem EUT S/N: PROTOTYPE

EUT MODEL: RCC0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3m LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN **POLARIZATION:** ☒ VERT ☐ HORIZ

■ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: Kyle F.

NOTES: 24 dBi 1 METER DISH ANTENNA
CIRCULAR POLARIZATION HIGH
T-COM CHANNEL

[illegible]

* **CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN**

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

BREA (714) 579-0500

SILVERADO (714) 589-0700

AGOURA (818) 597-0600



COMPANY NAME: RADIO CONDUCT CORPORATION DATE: 4-18-78

EUT: 2.44 GHz RADIO WIRE MPOEM EUT S/N: PROTOTYPE

EUT MODEL: RCC0001 LOCATION: ☒ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC 15.247 CLASS: TEST DISTANCE: 3m LAB: D

ANTENNA: ☐ LOOP ☐ BICONICAL ☐ LOG ☒ HORN **POLARIZATION:** ☐ VERT ☒ HORIZ

☒ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: *Kyle F.*

NOTES: 1 METER DISH ANTENNA
CIRCULAR POLARIZATION
7-CCM
HIGH CHANNEL

[illegible]

**** DELTA = CORRECTED READING - SPECIFICATION LIMIT**

AGOURA (818) 597-0600



SECTION 15.207

***CONDUCTED EMISSIONS ON AC
POWER LINE***

FCC ID: NFX-RCC0001-00

MEASUREMENT NOTES:

RADIOCONNECT CORPORATION

2.4 GHZ RADIOWIRE MODEM

MODEM: RC0001

FCC C - BLACK LEAD - 27 APR 1998 15:41:24

12 highest Peaks above -50 dB of Limit Line #2
 peak criteria = .1 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	25.58	46.6	-1.43 SEC QP RISING BELOW AND ON PLOT
2	.4693	42.7	-5.3
3	.4654	42.6	-5.4
4	.6401	42.4	-5.6
5	13.29	41.5	-6.5
6	7.577	41.3	-6.7
7	.4557	41.2	-6.8
8	11.05	41.2	-6.8
9	9.624	41.1	-6.9
10	10.42	41.1	-6.9
11	6.785	41	-7.0
12	7.451	41	-7.0

12 highest Quasi-Peaks above -50 dB of Limit Line #2
 peak criteria = .1 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	25.69	45.8	-2.2
2	25.47	20.6	-19.4

MEASUREMENT NOTES:

TEST ENGINEER: Kyle Fujimoto
 KYLE FUJIMOTO

COMPATIBLE ELECTRONICS INC. 27 Apr 1998 15: 41: 24
EMISSION LEVEL [dBuV] PEAK QUASI-PEAK

FCC PT 15 CLASS A & B CONDUCTED
RADIOCONNECT CORPORATION
2.4 GHZ RADIOWIRE MODEM
MODEM: RCC0001
FCC C - BLACK LEAD

CLASS A

CLASS B

FREQUENCY [MHZ]

PAGE 154

MEASUREMENT NOTES:

PASS ASS

RADIOCONNECT CORPORATION

2.4 GHZ RADIOWIRE MODEM

MODEL: RCC0001

FCC C - WHITE LEAD - 27 APR 1998 15:53:41

FCC ID: NFX-RCC0001-00

12 highest Peaks above -50 dB of Limit Line #2
peak criteria = .1 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	25.58	46.4	-1.6
2	.6455	43.1	-4.9
3	3.371	43.1	-4.9
4	4.193	43.1	-4.9
5	4.776	42.8	-5.2
6	9.745	42.8	-5.2
7	.6401	42.7	-5.3
8	7.144	42.5	-5.5
9	3.087	42.4	-5.6
10	3.206	42.4	-5.6
11	4.246	42.4	-5.6
12	4.428	42.4	-5.6

SEC QP READING BELOW AND ON PLOT

12 highest Quasi-Peaks above -50 dB of Limit Line #2
peak criteria = .1 dB

PEAK#	FREQ (MHz)	(dBuV)	DELTA
1	25.69	44.7	-3.3
2	26.12	29.8	-18.2
3	25.47	28.9	-19.1

MEASUREMENT NOTES:

TEST ENGINEER:

KYLE FUJIMOTO

hp

100

COMPATIBLE ELECTRONICS INC.
EMISSION LEVEL [dBuV]

27 Apr 1998 15:53:41
PEAK QUASI-PEAK

FCC PT 15 CLASS A & B CONDUCTED

RADIOCONNECT CORPORATION
2.4 GHZ RADIOWIRE MODEM
MODEM: RCC0001
FCC C - WHITE LEAD

80

CLASS A

60

CLASS B

40



20

.45

1

10

30

FREQUENCY [MHZ]

FCC ID: NFX-RCC0001-00

SECTION 15.247 (e)***PROCESSING GAIN***

PROCESSING GAIN TEST

CHANNEL 3 (2441.20 MHz)

LOSSES

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	
2441.20	-7.40	-49.40	-49.40	-2.00	13.00	Combiner Loss	40
2441.63	-7.40	-49.40	-47.40	0.00	15.00	Cable Loss	1
2442.05	-7.40	-49.40	-47.40	0.00	15.00	System Loss	1
2442.48	-7.40	-49.40	-47.40	0.00	15.00	S/N ratio	2
2442.91	-7.40	-49.40	-47.40	0.00	15.00		13
2443.33	-7.40	-49.40	-47.40	0.00	15.00	Signal Level = TX Output - Attenuation - Combiner Loss - Cable Loss	
2443.76	-7.40	-49.40	-47.40	0.00	15.00	Mj J/S ratio =	
2444.19	-7.40	-49.40	-47.40	0.00	15.00	CW Noise - Sig. Level - Combiner Loss - Cable Loss	
2444.61	-7.40	-49.40	-47.40	1.00	16.00	Processing Gain =	
2445.04	-7.40	-49.40	-47.40	1.00	16.00	Mj J/S ratio + System Loss + S/N ratio.	
2445.47	-7.40	-49.40	-46.40	2.00	17.00		
2445.89	-7.40	-49.40	-46.40	2.00	17.00		
2446.32	-7.40	-49.40	-45.40	2.00	17.00		
2446.75	-7.40	-49.40	-45.40	2.00	17.00		
2447.17	-7.40	-49.40	-44.40	3.00	18.00		
2447.60	-7.40	-49.40	-44.40	3.00	18.00		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2448.03	-7.40	-49.40	-42.40	5.00	20.00
2448.45	-7.40	-49.40	-42.40	5.00	20.00
2448.88	-7.40	-49.40	-40.40	7.00	22.00
2449.31	-7.40	-49.40	-39.40	8.00	23.00
2449.73	-7.40	-49.40	-38.40	9.00	24.00
2450.16	-7.40	-49.40	-38.40	9.00	24.00
2450.59	-7.40	-49.40	-36.40	11.00	26.00
2451.01	-7.40	-49.40	-34.40	13.00	28.00
2451.44	-7.40	-49.40	-33.40	14.00	29.00
2451.87	-7.40	-49.40	-31.40	16.00	31.00
2452.29	-7.40	-49.40	-29.40	18.00	33.00
2452.72	-7.40	-49.40	-26.40	21.00	36.00
2453.15	-7.40	-49.40	-22.40	25.00	40.00
2453.57	-7.40	-49.40	-19.40	28.00	43.00

PROCESSING GAIN WORKSHEET FCC ID: NFX-RCC0001-00
CHANNEL 3 (2441.20 MHz)

						LOSSES	
Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)	Attenuation	40
2440.77	-7.40	-49.40	-49.40	-2.00	13.00	Combiner Loss	1
2440.35	-7.40	-49.40	-48.40	-1.00	14.00	Cable Loss	1
2439.92	-7.40	-49.40	-49.40	-2.00	13.00	System Loss	2
2439.49	-7.40	-49.40	-49.40	-2.00	13.00	S/N ratio	13
2439.07	-7.40	-49.40	-48.40	-1.00	14.00	Signal Level = TX Ouput - Attenuation - Combiner Loss - Cable Loss	
2438.64	-7.40	-49.40	-47.40	0.00	15.00	Mj J/S ratio =	
2438.21	-7.40	-49.40	-47.40	0.00	15.00	CW Noise - Sig. Level - Combiner Loss - Cable Loss	
2437.79	-7.40	-49.40	-47.40	0.00	15.00	Processing Gain =	
2437.36	-7.40	-49.40	-46.40	2.00	17.00	Mj J/S ratio + System Loss + S/N ratio.	
2436.93	-7.40	-49.40	-47.40	1.00	16.00		
2436.51	-7.40	-49.40	-46.40	2.00	17.00		
2436.08	-7.40	-49.40	-46.40	2.00	17.00		
2435.65	-7.40	-49.40	-45.40	2.00	17.00		
2435.23	-7.40	-49.40	-46.40	1.00	16.00		
2434.80	-7.40	-49.40	-44.40	3.00	18.00		
2434.37	-7.40	-49.40	-43.40	4.00	19.00		

CHANNEL 3 (2441.20 MHz)

Jammer Freq. (MHz)	Transmitter Output (dBm)	Signal Level (dBm)	CW Noise (dBm)	Mj J/S ratio (dB)	Processing Gain (dBm)
2433.95	-7.40	-49.40	-42.40	5.00	20.00
2433.52	-7.40	-49.40	-41.40	6.00	21.00
2433.09	-7.40	-49.40	-40.40	7.00	22.00
2432.67	-7.40	-49.40	-39.40	8.00	23.00
2432.24	-7.40	-49.40	-37.40	10.00	25.00
2431.81	-7.40	-49.40	-36.40	11.00	26.00
2431.39	-7.40	-49.40	-35.40	12.00	27.00
2430.96	-7.40	-49.40	-34.40	13.00	28.00
2430.53	-7.40	-49.40	-31.40	16.00	31.00
2430.11	-7.40	-49.40	-31.40	16.00	31.00
2429.68	-7.40	-49.40	-28.40	19.00	34.00
2429.25	-7.40	-49.40	-28.40	19.00	34.00
2428.83	-7.40	-49.40	-28.40	19.00	34.00



APPENDIX B

EUT CONFIGURATION AND CABLE INFORMATION

EUT AND ACCESSORY LIST

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
2.44 GHz RadioWire Modem	RADIOCONNECT CORPORATION	RCC0001	PROTOTYPE	AJXSX-2007A
NETWORK INTERFACE MODULE	RADIOCONNECT CORPORATION	007-0002-00	PROTOTYPE	N/A
HELICAL ANTENNA	T-COM	P/N: 250-0001-00, 250-0001-01	N/A	N/A
0.6 METER DISH ANTENNA	T-COM	P/N: 250-0002-00, 250-0002-01	N/A	N/A
1.0 METER DISH ANTENNA	T-COM	P/N: 250-0002-00, 250-0002-01	N/A	N/A

**DESCRIPTION OF EUT CONFIGURATION AND CABLE INFORMATION 2.44 GHz
RadioWire Modem MODEL: RCC0001****EUT CONFIGURATION**

The 2.44 GHz RadioWire Modem Model: RCC0001 (EUT) was placed on the wooden table and tested in three orthogonal axis. The low (channel 1), medium (channel 3), and high (channel 5) channels were tested. The EUT was connected to and powered by a Network Interface Module via its power port. The EUT was transmitting on a continuous basis and sending information to the Network Interface Module. The radiated and conducted data was taken in this mode of operation. All initial investigations were performed with the EMI receiver in manual mode scanning the frequency range continuously. The cables were bundled and routed as shown in the photographs in this Appendix.

Note: Three different antennas were tested with the EUT (Helical, 0.6 Meter Dish, and 1.0 Meter Dish). Complete data for the harmonics was taken for both antennas, while for the spurious, the 1.0 Meter Dish antenna was found to be the worst case and final data was taken with this antenna. More information about the each antenna can be found in Exhibit 7 of this package along with the duty cycle information and schematics.

CABLE CONSTRUCTION AND TERMINATIONCable 1

This is a 12 foot foil shielded cable connecting the Network Interface Module to the EUT. It has a metallic AMP CPC connector at the EUT end and a D-25 pin metallic connector at the Network Interface Module end. The cable was bundled to a length of 1 meter. The shield of the cable was grounded to the chassis via the connectors.



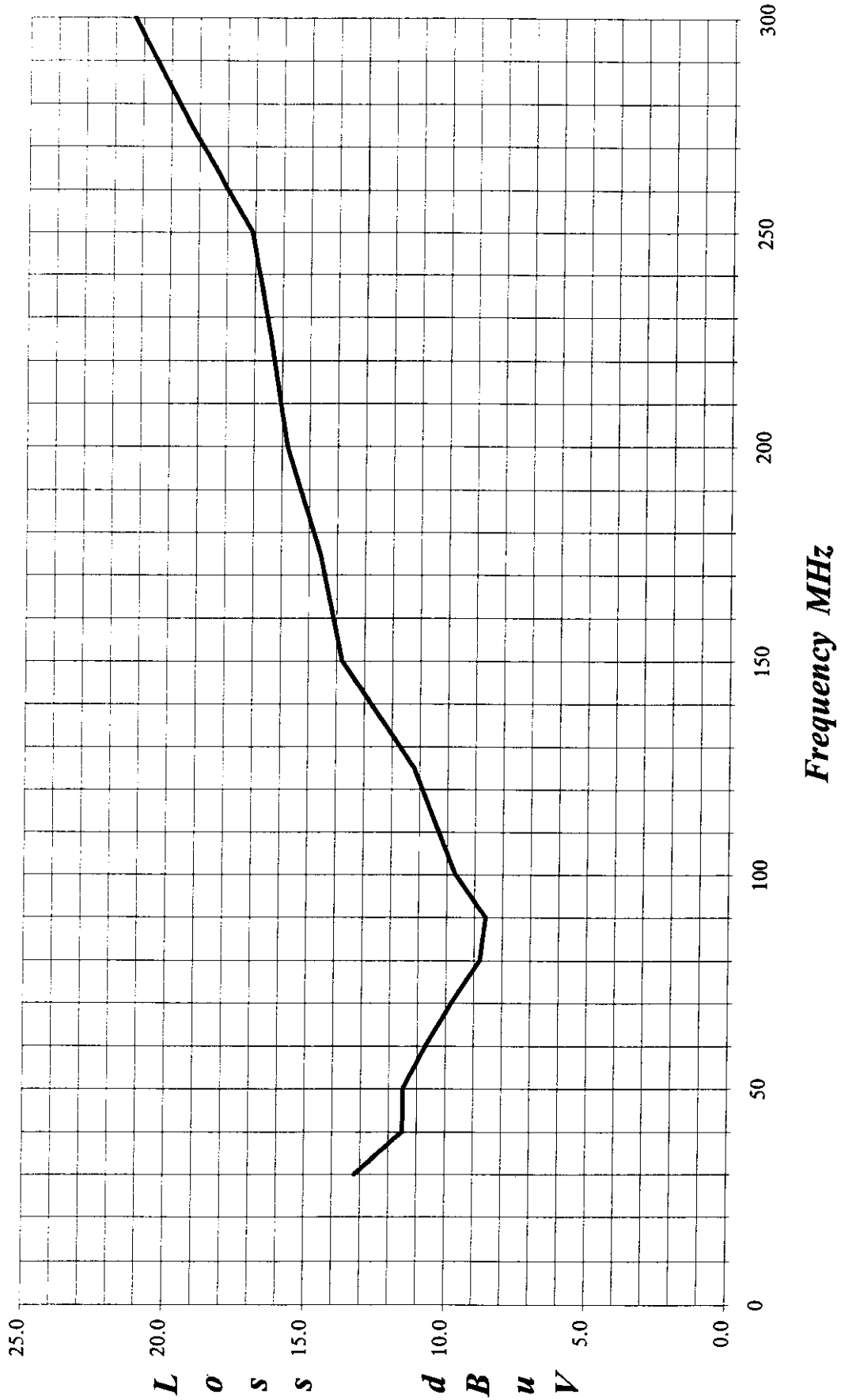
APPENDIX C

***ANTENNA, AMPLIFIER FACTORS
& EFFECTIVE GAIN CHARTS***



Cal: 3/24/98

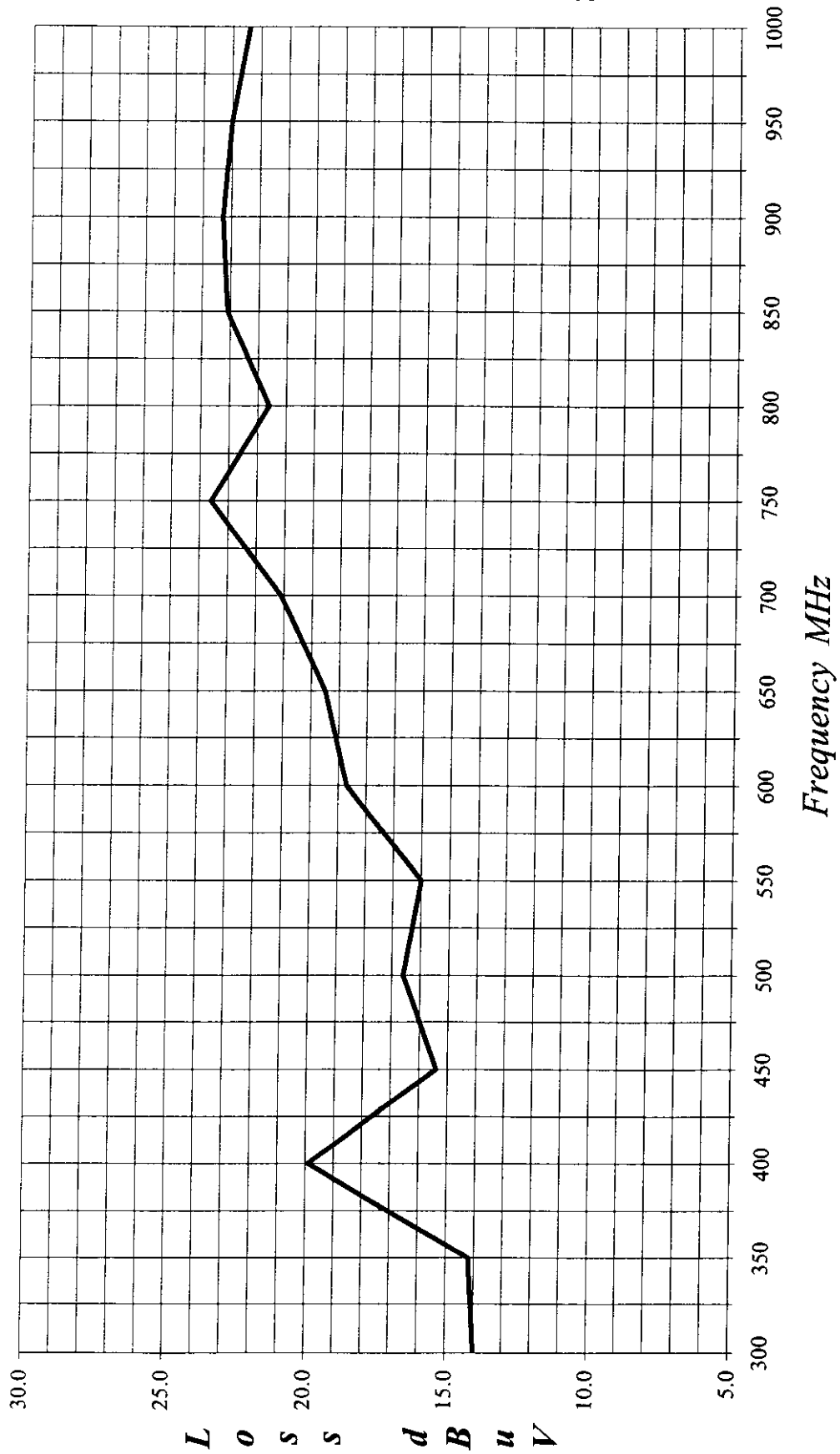
LAB "D" BICONICAL ANTENNA AB-100 S/N 01548





Cal: 2/13/98

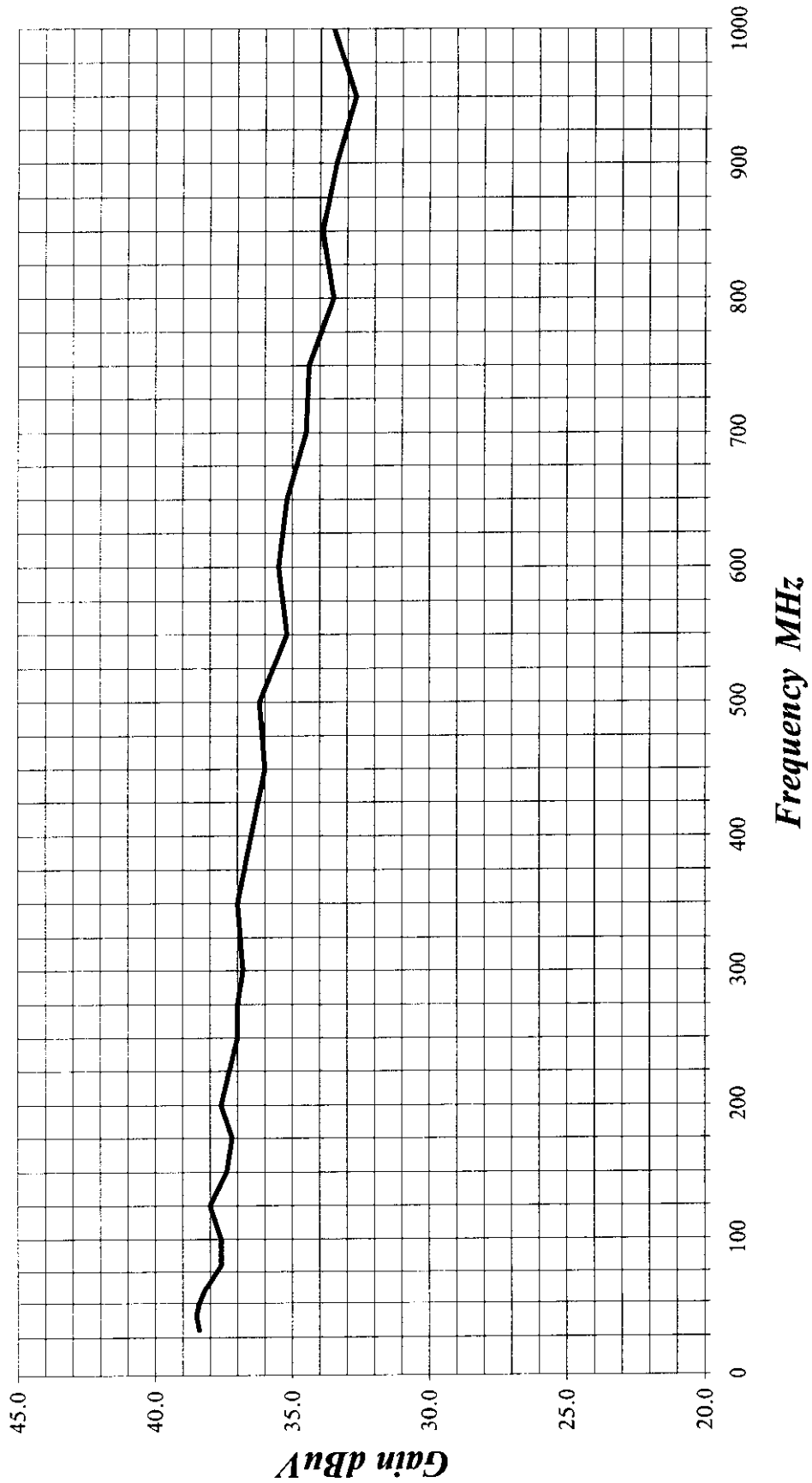
LAB "D" LOG PERIODIC ANTENNA AL-100 S/N 01012





Lab "D" Effective: 2/16/98 Effective Gain = Preamplifier Gain - Cable Loss

**PREAMPLIFIER EFFECTIVE GAIN AT 3 METERS PA-102 S/N:
1017**



**COM-POWER PA-122****MICROWAVE PREAMPLIFIER****S/N: 001****CALIBRATION DATE: MARCH 31, 1998**

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	33.0	8.0	31.4
1.1	33.0	8.5	30.5
1.2	32.9	9.0	31.4
1.3	32.9	9.5	32.6
1.4	32.8	10.0	33.1
1.5	32.7	10.5	32.1
1.6	33.0	11.0	31.0
1.7	33.0	11.5	31.0
1.8	33.1	12.0	30.9
1.9	32.9	12.5	30.9
2.0	33.1	13.0	30.4
2.5	32.7	13.5	31.0
3.0	32.4	14.0	29.3
3.5	32.1	14.5	28.5
4.0	31.8	15.0	27.6
4.5	31.5	15.5	27.6
5.0	31.6	16.0	27.3
5.5	32.0	16.5	29.3
6.0	31.6	17.0	30.4
6.5	32.0	17.5	31.1
7.0	31.4	18.0	29.7
7.5	32.0	18.5	29.3

FCC ID: NFX-RCC0001-00

ANTENNA FACTORS

FOR

ANTENNA RESEARCH HORN ANTENNA
MODEL: MWH-1826/B
S/N: 1004

CALIBRATION DATE: DECEMBER 5, 1994

FREQUENCY	ANTENNA
GHz	FACTOR
	dB
18	31.8
19	32.1
20	32.0
21	32.4
22	32.5
23	32.8
24	32.9
25	32.9
26	33.4



E-FIELD ANTENNA FACTOR CALIBRATION

$$E(\text{dB V/m}) = V_o(\text{dB V}) + AFE(\text{dB/m})$$

Model number : DRG-118/A

Frequency GHz	AFE dB/m	Gain dBi
1	22.3	8.0
2	26.7	9.5
3	29.7	10.1
4	29.5	12.8
5	32.3	12.0
6	32.4	13.4
7	36.1	11.0
8	37.4	10.9
9	36.8	12.5
10	39.5	10.7
11	39.6	11.5
12	39.8	12.0
13	39.7	12.8
14	41.8	11.3
15	41.9	11.9
16	38.1	16.3
17	41.0	13.9
18	46.5	8.9

Serial number : 1053
Job number : 96-092
Remarks : 3 meter calibration
Standards : LPD-118/A, TE-1000

Temperature : 72° F
Humidity : 56 %
Traceability : A01887
Date : December 08, 1995

Calibrated By

FCC ID: NFX-RCC0001-00

Com-Power Corporation

(714) 587-9800

Antenna Calibration

Antenna Type:	Loop Antenna
Model:	AL-130
Serial Number:	25309
Calibration Date:	2/5/98

Frequency MHz	Magnetic (dB/m)	Electric dB/m
0.01	-40.5	11.0
0.02	-41.6	9.9
0.03	-40.0	11.5
0.04	-40.3	11.2
0.05	-41.6	9.9
0.06	-41.1	10.4
0.07	-41.3	10.2
0.08	-41.6	9.9
0.09	-41.7	9.8
0.1	-41.8	9.7
0.2	-44.0	7.5
0.3	-41.6	9.9
0.4	-41.7	9.8
0.5	-41.7	9.8
0.6	-41.5	10.0
0.7	-41.5	10.0
0.8	-41.6	9.9
0.9	-41.6	9.9
1	-41.1	10.4
2	-40.7	10.8
3	-40.7	10.8
4	-40.9	10.6
5	-40.1	11.4
6	-40.0	11.5
7	-40.3	11.2
8	-39.8	11.7
9	-38.8	12.7
10	-40.8	10.7
12	-41.4	10.1
14	-41.4	10.1
15	-40.9	10.6
16	-40.8	10.7
18	-41.5	10.0
20	-41.5	10.0
25	-41.2	10.3
30	-41.4	10.1

Trans. Antenna Height	2 meter
Receiving Antenna Height	2 meter



APPENDIX D

MODIFICATIONS TO THE EUT



MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC Subpart C Section 15.247 (c) specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

Modifications:

- 1) Two ferrite (FairRite P/N: 2643800502) shield beads were added to the AMP CPC connector cabling. The data wires pass straight through both beads (one turn through both beads). The power wires pass through the first bead (the bead closer to the AMP CPC connector), then passes through the second bead twice (two turns).
- 2) Add 1 band pass filter in series with F5 and the proprietary antenna connector. (Manufacturer: MuRata P/N: DFC32R44P084BHD)

**RadioConnect**
CORPORATION

The following modifications to the original design of the RadioWire Modem model RCC0001 shall be made to production units to ensure compliance with FCC part 15 rules and regulations:

- 1) Two Fair-Rite part number 2643800502 shield beads added to the AMP CPC connector cabling. Data wires pass straight through both beads (one turn through both beads). The power wires passes through the first bead, the bead closes to the AMP CPC connector, then passes through the second bead twice (one turn on first bead, two turns on second bead).
- 2) One additional Murata Bandpass filter part number DFC32R44P084BHD added in between F5 and the proprietary antenna connector.

Sincerely,

H. Maurice France
President & CEO

Theory of Operation

General Description

The RadioWire Modem (RWM) consists of 6 different Printed Circuit Boards (PCB). The six boards are the Transceiver, I/F Demodulator, Spread Spectrum Controller, Application Processor, Backplane, and Power Supply. The antenna connects directly to the Transceiver Board through a proprietary connector that feeds through the weatherproof housing. Data and power are provided to the RWM from the outside world through a 28 pin AMP CPC connector. Differential baseband digital data connects to the RWM through twisted-pair wires.

Transmit Path

The digital data including payload and control signals is processed by a micro-processor which resides on the Application Processor Board. This payload data is handed off to the Spread Spectrum Controller Board that adds a header, groups the data into packets and spreads the data using a 12.8 MHz chip rate and a 32,768 bit spreading code. The null-to-null bandwidth of this data now occupies 25.6 MHz.

The Spread Spectrum Controller (SSC) also orchestrates the Transmit/Receive (T/R) cycle. The entire cycle takes 2.56 ms, 1.28 ms each for both transmit and receive portions (see figure 1). The transmitter operates on a 44.5% duty cycle, $(114 \text{ bytes} * 10 \text{ us / byte}) / 2.56 \text{ ms}$, during normal operations. Eight quiet, one preamble, 102 payload and 2 CRC bytes make up the structure of transmit or receive packet (see figure 2). Since the raw data rate is 800,000 bits per second for the RWM, the one-way data handling capability is $(102 \text{ bytes} * 8 \text{ bits/byte}) / 2.56 \text{ ms} = 318,750 \text{ bits-per-second}$. During one cycle, both transmit and receive can occur making the aggregate data rate $2 * \text{one-way data rate} = 637,500 \text{ bits-per-second}$.

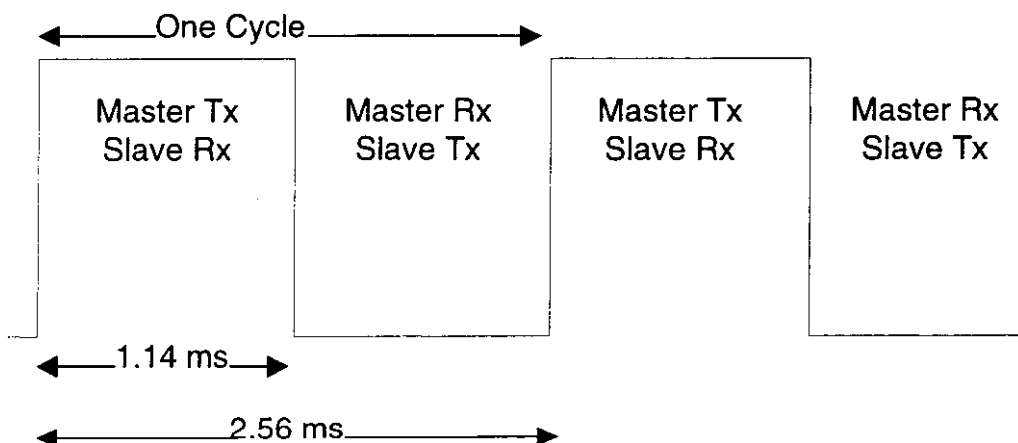
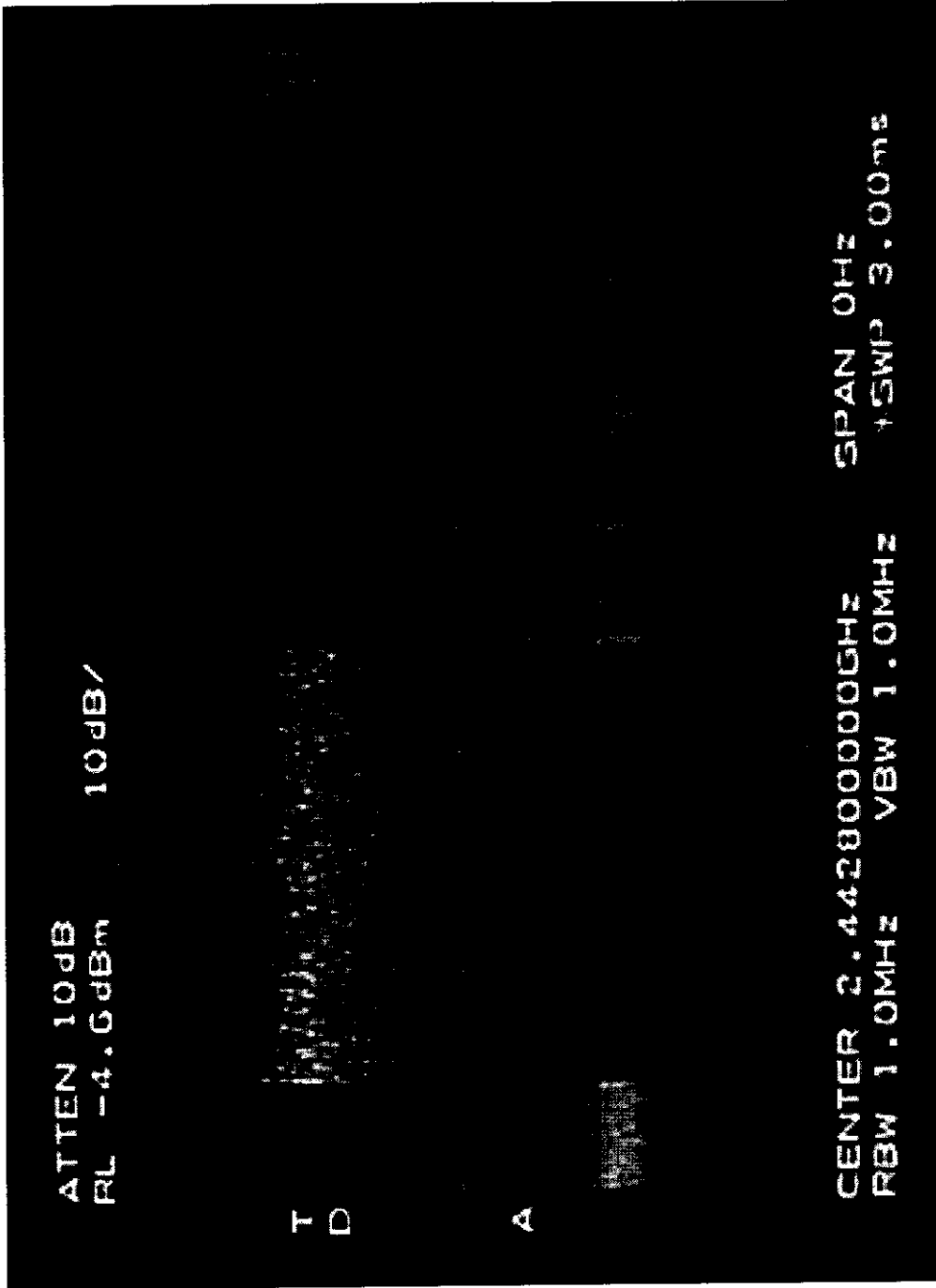


Figure 1 Transmit/Receive Timing

TRANSMIT DUTY CYCLE



SWEEP = 300 μ s / BOX