IX. Measurement Results for AIS FCC Tests Cont'd:

5. Frequency Stability/Tolerance Cont'd.

Frequencies: 162.025 MHz

Specification: 10 VDC through 28 VDC Normal Operation

The table below shows the variation in frequency with selected applied voltage:

Voltage (VDC)	% Nominal	Frequency (Hz)
10	85	162,024,955
12	Nominal	162,024,955
18	Nominal	162,024,955
20	Nominal	162,024,958
24	Nominal	162,024,960
28	115	162,024,957

IX. Measurement Results for AIS FCC Tests Cont'd:

6. Radiated Emissions.

The table below contains the spectrum analyzer output and the correction factors necessary to apply the limit to the data.
Field (dBuV/m) = Vmeas (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) - Amp Gain (dB).
Deviation (dB) = Field (dBuV/m) - Limit (dBuV/m); Negative deviation is compliant.

Freq MHz	Pol H/V	RBW kHz	VBW kHz	Vmeas dBuV	AF dB1/m	Amp dB	Cable dB	Field dBuV/m	Dist dB	Limit dBuV/m	Dev dB
30	H	120	300	40	18.6	29	1	30.6	0	40	-9.4
30	V	120	300	39	18.6	29	1	29.6	0	40	-10.4
35	H	120	300	48	18.2	29	1	38.2	0	40	-1.8
35	V	120	300	48	18.2	29	1	38.2	0	40	-1.8
40	H	120	300	44	18.3	29	1	34.3	0	40	-5.7
40	V	120	300	46	18.3	29	1	36.3	0	40	-3.7
45	H	120	300	45	17.8	29	1	34.8	0	40	-5.2
45	V	120	300	46	17.8	29	1	35.8	0	40	-4.2
50	H	120	300	39	15.1	29	2	27.1	0	40	-12.9
50	V	120	300	40	15.1	29	2	28.1	0	40	-11.9
60	H	120	300	50	11.1	29	2	34.1	0	40	-5.9
60	V	120	300	47	11.1	29	2	31.1	0	40	-8.9
70	H	120	300	53	8.1	29	2	34.1	0	40	-5.9
70	V	120	300	51	8.1	29	2	32.1	0	40	-7.9
80	H	120	300	52	9.8	29	2	34.8	0	40	-5.2
80	V	120	300	44	9.8	29	2	26.8	0	40	-13.2
90	H	120	300	45	10.9	29	2	28.9	0	43.5	-14.6
90	V	120	300	41	10.9	29	2	24.9	0	43.5	-18.6
100	H	120	300	43.5	12.2	29	3	29.7	0	43.5	-13.8
100	V	120	300	43	12.2	29	3	29.2	0	43.5	-14.3
125	H	120	300	43.5	12.9	29	3	30.4	0	43.5	-13.1
125	V	120	300	42	12.9	29	3	28.9	0	43.5	-14.6

Table 1 – Corrected Radiated Emissions Data and FCC Limit

IX. Measurement Results for AIS FCC Tests Cont'd:

6. Radiated Emissions Cont'd.

The table below contains the spectrum analyzer output and the correction factors necessary to apply the limit to the data.

Freq MHz	Pol H/V	RBW kHz	VBW kHz	Vmeas dBuV	AF dB1/m	Amp dB	Cable dB	Field dBuV/m	Dist dB	Limit dBuV/m	Dev dB
150	H	120	300	43.5	11.1	29	4	29.6	0	43.5	-13.9
150	V	120	300	43	11.1	29	4	29.1	0	43.5	-14.4
175	H	120	300	44	10.9	29	4	29.9	0	43.5	-13.6
175	V	120	300	45	10.9	29	4	30.9	0	43.5	-12.6
200	H	120	300	46	11.3	29	4	32.3	0	43.5	-11.2
200	V	120	300	43	11.3	29	4	29.3	0	43.5	-14.2
250	H	120	300	38	13.4	29	4	26.4	0	46	-19.6
250	V	120	300	39	13.4	29	4	27.4	0	46	-18.6
300	H	120	300	41	14.9	28	4	31.9	0	46	-14.1
300	H	120	300	41	14.9	28	4	31.9	0	46	-14.1
500	H	120	300	46	18.6	28	5	41.6	0	46	-4.4
500	V	120	300	45	18.6	28	5	40.6	0	46	-5.4
600	H	120	300	40	19.7	28	5	36.7	0	46	-9.3
600	V	120	300	43	19.7	28	5	39.7	0	46	-6.3
700	H	120	300	44	20.2	28	5.5	41.7	0	46	-4.3
700	V	120	300	43	20.2	28	5.5	40.7	0	46	-5.3
800	H	120	300	38	21.5	28	6	37.5	0	46	-8.5
800	V	120	300	39	21.5	28	6	38.5	0	46	-7.5
900	H	120	300	38	22.4	27	6	39.4	0	46	-6.6
900	V	120	300	39	22.4	27	6	40.4	0	46	-5.6
959	H	120	300	37	22.4	27	7	39.4	0	46	-6.6
959	V	120	300	39	22.4	27	7	41.4	0	46	-4.6
960	H	120	300	38	22.4	27	7	40.4	0	46	-5.6
960	V	120	300	37	22.4	27	7	39.4	0	46	-6.6

Table 1 Cont'd – Corrected Radiated Emissions Data and FCC Limit

IX. Measurement Results for AIS FCC Tests Cont'd:

6. Radiated Emissions Cont'd.

The table below contains the spectrum analyzer output and the correction factors necessary to apply the limit to the data.

Freq MHz	Pol H/V	RBW kHz	VBW kHz	Vmeas dBuV	AF dB1/m	Amp dB	Cable dB	Field dBuV/m	Dist dB	Limit dBuV/m	Dev dB
1000	H	1000	1000	34	24.2	27	8	39.2	0	54	-14.8
1000	V	1000	1000	32	24.2	27	8	37.2	0	54	-16.8
1200	H	1000	1000	33	24.8	26	9	40.8	0	54	-13.2
1200	V	1000	1000	32	24.8	26	9	39.8	0	54	-14.2
1400	H	1000	1000	34	25.3	25	10	44.3	0	54	-9.7
1400	V	1000	1000	33	25.3	25	10	43.3	0	54	-10.7
1630	H	1000	1000	32	26.1	24	12	46.1	0	54	-7.9
1630	V	1000	1000	33	26.1	24	12	47.1	0	54	-6.9

Table 1 Cont'd – Corrected Radiated Emissions Data and FCC Limit

IX. Measurement Results for AIS FCC Tests Cont'd:

7. Exposure Evaluation.

The table below compares the measured fields to the occupational exposure limit. The unit produces no significant electric or magnetic fields that would create an exposure hazard. Above 300 MHz the power density in mW/cm^2 is related to the electric field in V/m by: $S = E^2 /3770$.

Freq MHz	H-field A/m	Limit A/m	Dev A/m	E-Field V/m	Limit V/m	Dev V/m	Power mW/cm^2	Limit mW/cm^2	Dev mW/cm^2
0.3	< 0.1	1.63	-1.53	< 0.1	614	-613.9	☐	☐	☐
0.5	0.1	1.63	-1.53	0.1	614	-613.9	☐	☐	☐
1	0.1	1.63	-1.53	0.1	614	-613.9	☐	☐	☐
3	0.1	1.63	-1.53	0.1	614	-613.9	☐	☐	☐
5	0.1	0.98	-0.88	0.1	368	-367.9	☐	☐	☐
10	0.1	0.49	-0.39	0.1	184	-183.9	☐	☐	☐
30	< 0.01	0.163	-0.153	0.1	61.4	-61.3	☐	☐	☐
50	0.01	0.163	-0.153	0.1	61.4	-61.3	☐	☐	☐
100	0.01	0.163	-0.153	0.1	61.4	-61.3	☐	☐	☐
156	0.01	0.163	-0.153	< 1	61.4	-60.4	☐	☐	☐
163	0.01	0.163	-0.153	< 1	61.4	-60.4	☐	☐	☐
300	0.01	0.163	-0.153	0.1	61.4	-61.3	☐	☐	☐
500	☐	☐	☐	☐	☐	☐	< 0.1	1.7	-1.6
600	☐	☐	☐	☐	☐	☐	0.1	2.0	-1.9
800	☐	☐	☐	☐	☐	☐	0.1	2.7	-2.6
1000	☐	☐	☐	☐	☐	☐	0.1	3.3	-3.2
1200	☐	☐	☐	☐	☐	☐	0.1	4.0	-3.9
1500	☐	☐	☐	☐	☐	☐	0.1	5.0	-4.9
1630	☐	☐	☐	☐	☐	☐	0.1	5.4	-5.3

Table 2 - Exposure Evaluation Results