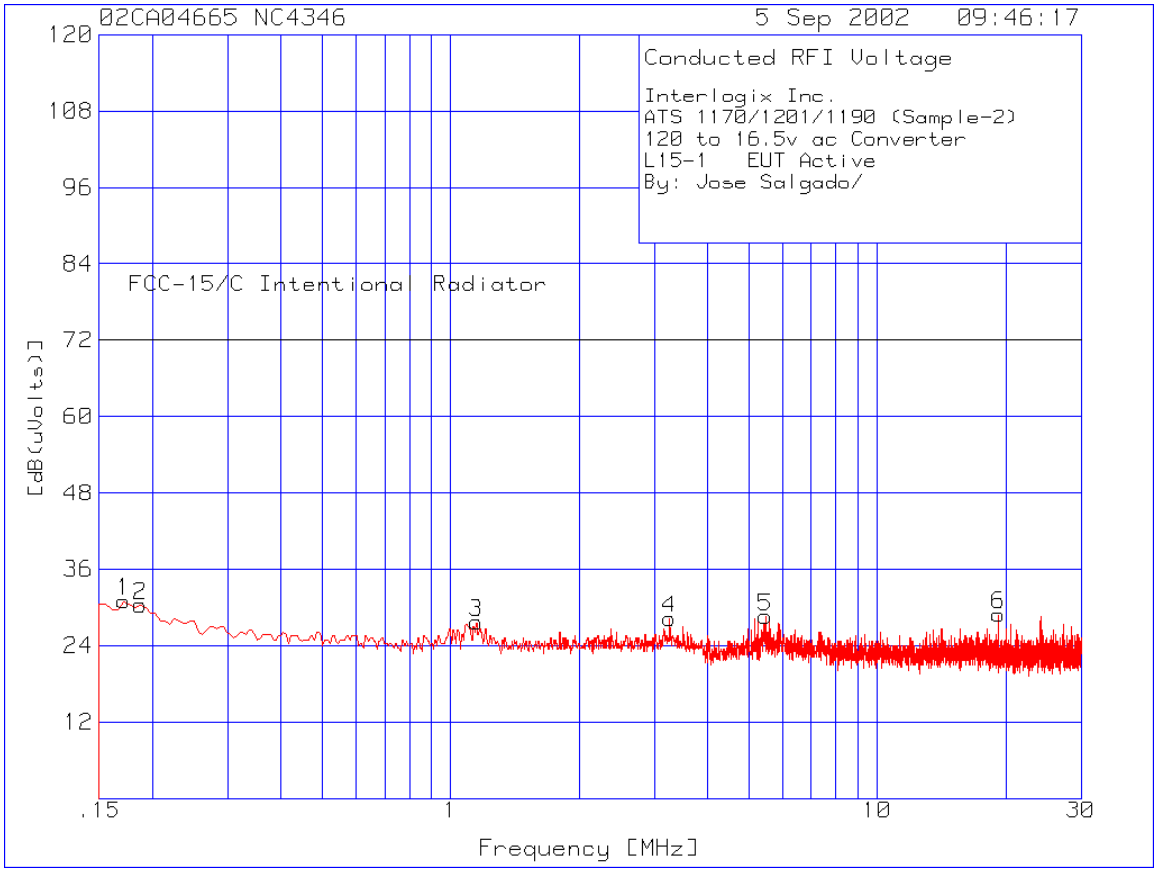
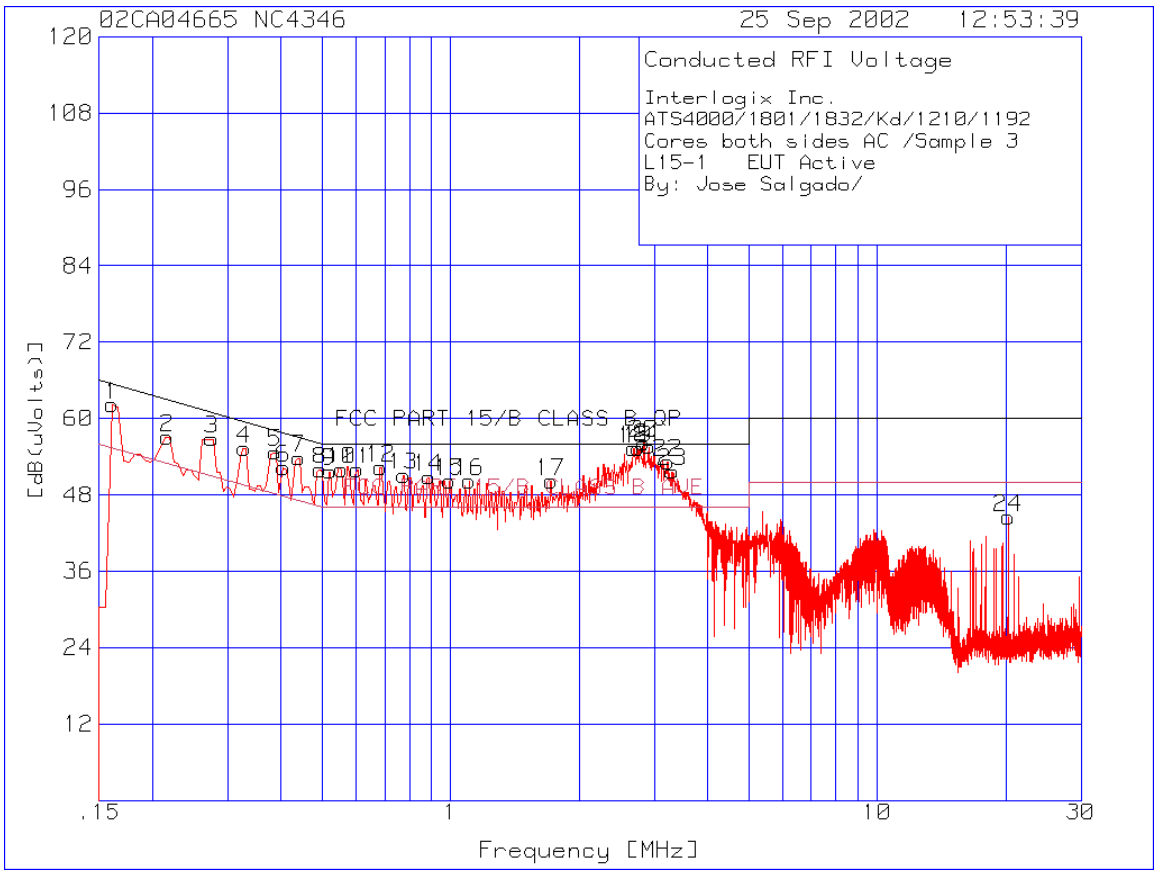
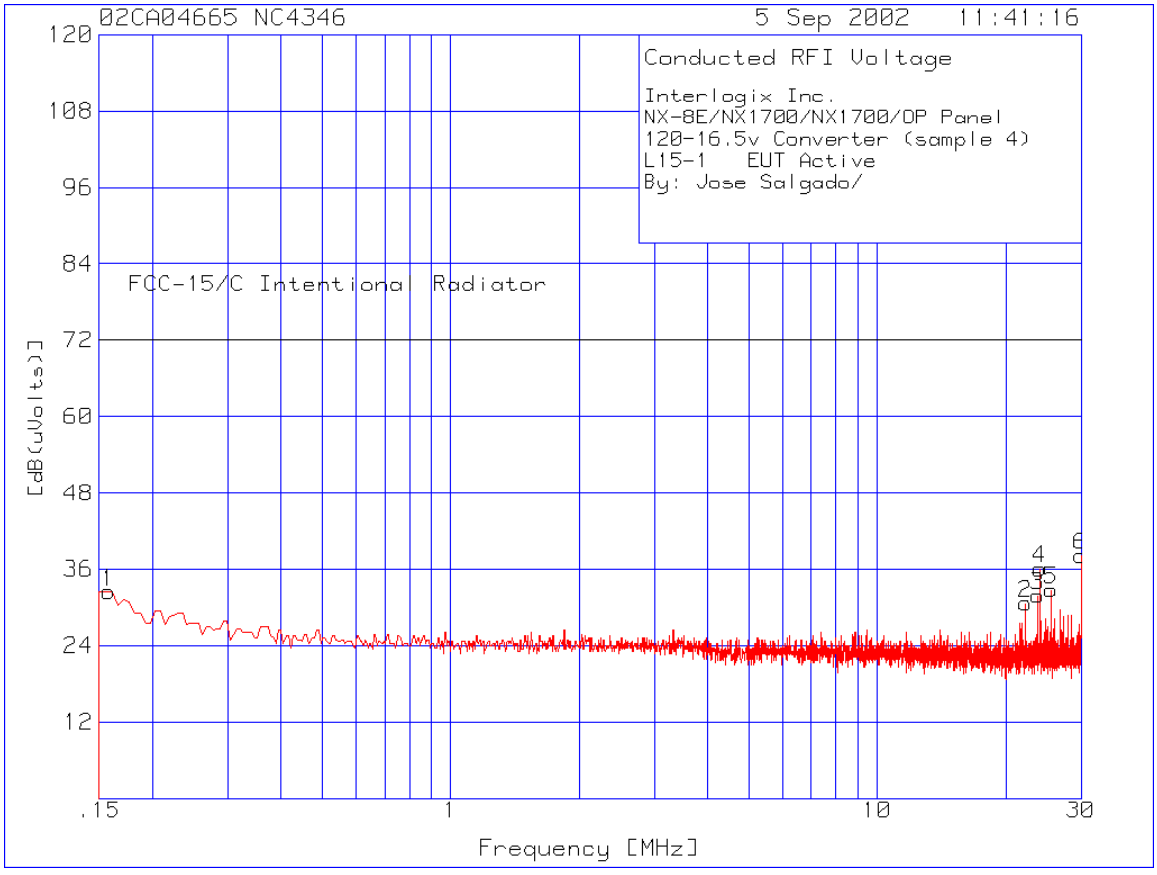
7.3 Conducted Emissions Test Data

Measurement Of Conducted Disturbance Voltage - Scan Line 1

Temp./Humidity/Atm. Pressure	**:**	22 °C/ 40 %RH/ 29.8 in Hg
Manufacturer	**:**	GE-Interlogix
Equipment Under Test (EUT)	**:**	Model ATS-1190, ATS-1192 and NX1700E
Operating Mode	**:**	AC Mains on
Applied Standard	**:**	CFR Title 47, Pt. 15 Subpart B/C
Detection Mode	**:**	Peak (pk)
Bandwidth	**:**	9 kHz for measurements 150 kHz to 30 MHz
Line	**:**	L1




02CA04665 NC4346
25 Sep 2002 12:53:39
Conducted RFI Voltage
Interlogix Inc.
ATS4000/1801/1832/Kd/1210/1192
Cores both sides AC /Sample 3
L15-1 EUT Active
By: Jose Salgado/
FCC PART 15/B CLASS B QP
120
108
96
84
72
60
48
36
24
12
dB(uVolts)
.15
1
10
30
Frequency [MHz]


02CA04665 NC4346
5 Sep 2002 11:41:16
Conducted RFI Voltage
Interlogix Inc.
NX-8E/NX1700/NX1700/DP Panel
120-16.5v Converter (sample 4)
L15-1 EUT Active
By: Jose Salgado/
FCC-15/C Intentional Radiator
120
108
96
84
72
60
48
36
24
12
dB(uVolts)
.15
1
10
30
Frequency [MHz]

Measurement Of Conducted Disturbance Voltage - Line 1 Data

Temp./Humidity/Atm. Pressure	**:**	22 °C/ 40 %RH/ 29.8 in Hg
Manufacturer	**:**	GE-Interlogix
Equipment Under Test (EUT)	**:**	Model ATS-1190, ATS-1192 and NX1700E
Operating Mode	**:**	AC Mains on
Applied Standard / Class	**:**	CFR Title 47, Pt. 15 / General Requirements
Detection Mode	**:**	Quasi-peak (qp) or Average (av)
Bandwidth	**:**	9 kHz for measurements 150 kHz to 30 MHz
Line	**:**	L1

ATS-1190

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1
.20581	15.82qp	9.6	1.2	26.62	64.41
			Margin [dB]:		-37.79
.20515	16.17qp	9.6	1.2	26.97	64.42
			Margin [dB]:		-37.45
1.1642	12.57qp	9.5	.1	22.17	56
			Margin [dB]:		-33.83
3.267	12.1qp	9.6	.1	21.8	56
			Margin [dB]:		-34.20
5.4289	12.67qp	9.7	.1	22.47	60
			Margin [dB]:		-37.53
19.252	**17qp**	**9.8**	**.1**	**26.9**	**60**
			Margin [dB]:		**-33.10**

File: CVL11_2QP.TXT
Date: 9/5/02

ATS1192

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2
.16065	36.97qp	9.6	2	48.57	65.4	55.4
			Margin [dB]:		-16.83	-6.83
.21655	34.07qp	9.6	1.1	44.77	63	53
			Margin [dB]:		-18.23	-8.23
.27511	35.35qp	9.5	.9	45.75	61	51
			Margin [dB]:		-15.25	-5.25
.32834	34.3qp	9.6	.7	44.6	59.5	49.5
			Margin [dB]:		-14.9	-4.9
.3869	35.35qp	9.6	.5	45.45	58.1	48.1
			Margin [dB]:		-12.65	-2.65
.40554	31.95qp	9.6	.5	42.05	57.7	47.7
			Margin [dB]:		-15.65	-5.65
.44014	31.32qp	9.6	.4	41.32	57.1	47.1
			Margin [dB]:		-15.78	-5.78
.49338	29.95qp	9.6	.2	39.75	56.1	46.1
			Margin [dB]:		-16.35	-6.35
.52	33.02qp	9.6	.2	42.82	56	46
			Margin [dB]:		-13.18	-3.18
.5546	**35.15qp**	**9.6**	**.2**	**44.95**	**56**	**46**
			Margin [dB]:		**-11.05**	**-1.05**
.60252	30.25qp	9.6	.2	40.05	56	46
			Margin [dB]:		-15.95	-5.95
.68503	32.72qp	9.6	.1	42.42	56	46
			Margin [dB]:		-13.58	-3.58
.77554	30.9qp	9.6	.1	40.6	56	46
			Margin [dB]:		-15.4	-5.4
.88733	32.45qp	9.6	.1	42.15	56	46
			Margin [dB]:		-13.85	-3.85
.99381	28.67qp	9.6	.1	38.37	56	46
			Margin [dB]:		-17.63	-7.63
1.1056	28.3qp	9.6	.1	38	56	46
			Margin [dB]:		-18	-8
1.71783	28.07qp	9.6	.1	37.77	56	46
			Margin [dB]:		-18.23	-8.23
2.6761	33.8qp	9.6	.1	43.5	56	46
			Margin [dB]:		-12.5	-2.5
2.74797	34.3qp	9.6	.1	44	56	46
			Margin [dB]:		-12	-2
2.83581	34.7qp	9.6	.1	44.4	56	46
			Margin [dB]:		-11.6	-1.6
2.91566	34.35qp	9.6	.1	44.05	56	46
			Margin [dB]:		-11.95	-1.95
3.22444	32.52qp	9.6	.1	42.22	56	46
			Margin [dB]:		-13.78	-3.78
3.30429	31.72qp	9.6	.1	41.42	56	46
			Margin [dB]:		-14.58	-4.58
20.247	27.85qp	9.8	.1	37.75	60	50
			Margin [dB]:		-22.25	-12.25

File: Cvl12_3qp.txt
Date: 9/25/02

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2
.16065	24.79av	9.6	2	36.39	65.4	55.4
			Margin [dB]:		-29.01	-19.01
.21655	22.2av	9.6	1.1	32.9	63	53
			Margin [dB]:		-30.1	-20.1
.27511	22.48av	9.5	.9	32.88	61	51
			Margin [dB]:		-28.12	-18.12
.32834	21.51av	9.6	.7	31.81	59.5	49.5
			Margin [dB]:		-27.69	-17.69
.3869	22.54av	9.6	.5	32.64	58.1	48.1
			Margin [dB]:		-25.46	-15.46
.40554	17.67av	9.6	.5	27.77	57.7	47.7
			Margin [dB]:		-29.93	-19.93
.44014	18.27av	9.6	.4	28.27	57.1	47.1
			Margin [dB]:		-28.83	-18.83
.49338	16.78av	9.6	.2	26.58	56.1	46.1
			Margin [dB]:		-29.52	-19.52
.52	18.16av	9.6	.2	27.96	56	46
			Margin [dB]:		-28.04	-18.04
.5546	**20.83av**	**9.6**	**.2**	**30.63**	**56**	**46**
			Margin [dB]:		**-25.37**	**-15.37**
.60252	17.32av	9.6	.2	27.12	56	46
			Margin [dB]:		-28.88	-18.88
.68503	17.48av	9.6	.1	27.18	56	46
			Margin [dB]:		-28.82	-18.82
.77554	18.38av	9.6	.1	28.08	56	46
			Margin [dB]:		-27.92	-17.92
.88733	18.55av	9.6	.1	28.25	56	46
			Margin [dB]:		-27.75	-17.75
.99381	16.88av	9.6	.1	26.58	56	46
			Margin [dB]:		-29.42	-19.42
1.1056	15.97av	9.6	.1	25.67	56	46
			Margin [dB]:		-30.33	-20.33
1.71783	15.23av	9.6	.1	24.93	56	46
			Margin [dB]:		-31.07	-21.07
2.6761	17.08av	9.6	.1	26.78	56	46
			Margin [dB]:		-29.22	-19.22
2.74797	17.34av	9.6	.1	27.04	56	46
			Margin [dB]:		-28.96	-18.96
2.83581	17.31av	9.6	.1	27.01	56	46
			Margin [dB]:		-28.99	-18.99
2.91566	18.13av	9.6	.1	27.83	56	46
			Margin [dB]:		-28.17	-18.17
3.22444	15.62av	9.6	.1	25.32	56	46
			Margin [dB]:		-30.68	-20.68
3.30429	15.33av	9.6	.1	25.03	56	46
			Margin [dB]:		-30.97	-20.97
20.24698	16.34av	9.8	.1	26.24	60	50
			Margin [dB]:		-33.76	-23.76

LIMIT 1: FCC PART 15/B CLASS B QP
LIMIT 2: FCC PART 15/B CLASS B AVE
File: Cvl12_3av.txt
Date: 9/25/02

NX1700E

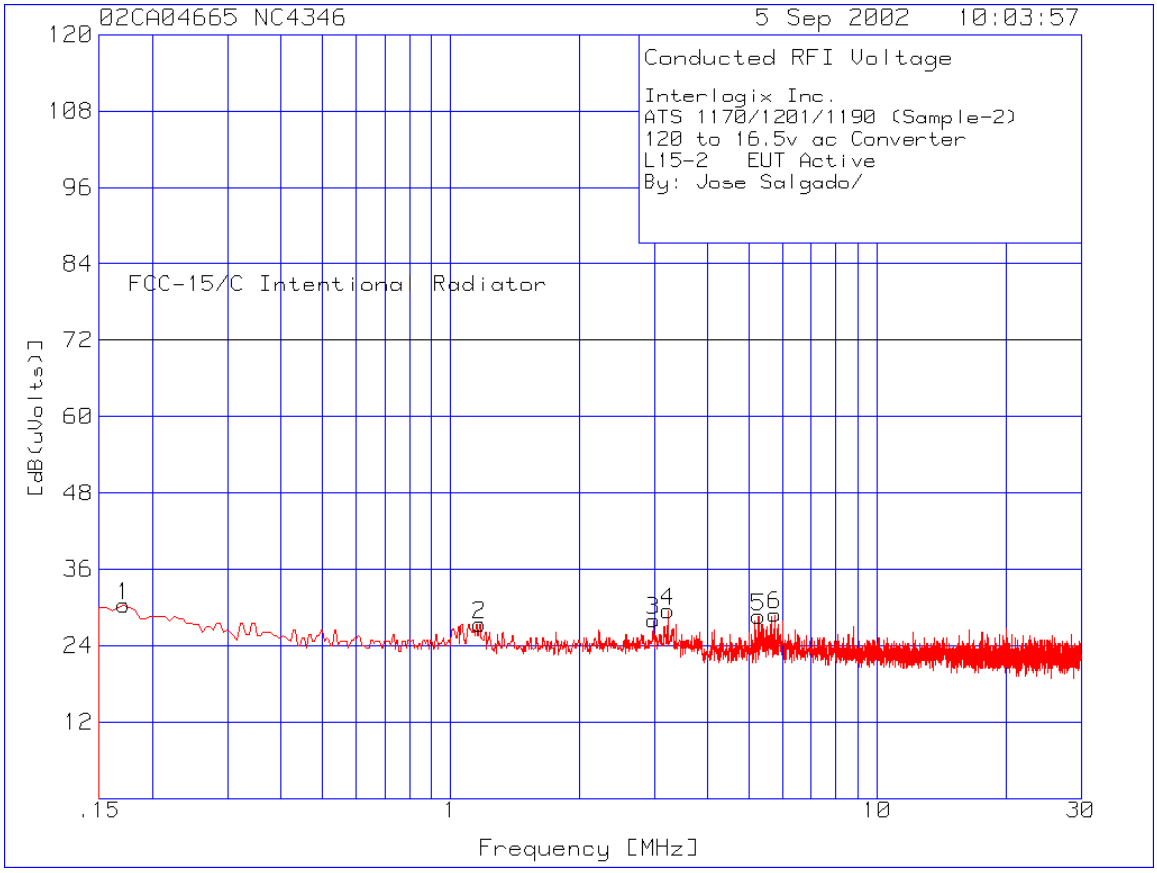
Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1
.20616	15.6qp	9.6	1.2	26.4	64.40
			Margin [dB]:		-38.00
22.2506	18qp	9.9	.1	28	60
			Margin [dB]:		-32.00
23.7525	20.2qp	9.9	.1	30.2	60
			Margin [dB]:		-29.80
24.0026	26.02qp	9.9	.1	36.02	60
			Margin [dB]:		-23.98
25.5031	22.4qp	9.9	.1	32.4	60
			Margin [dB]:		-27.60
29.9021	12.15qp	9.9	.1	22.15	60
			Margin [dB]:		-37.85

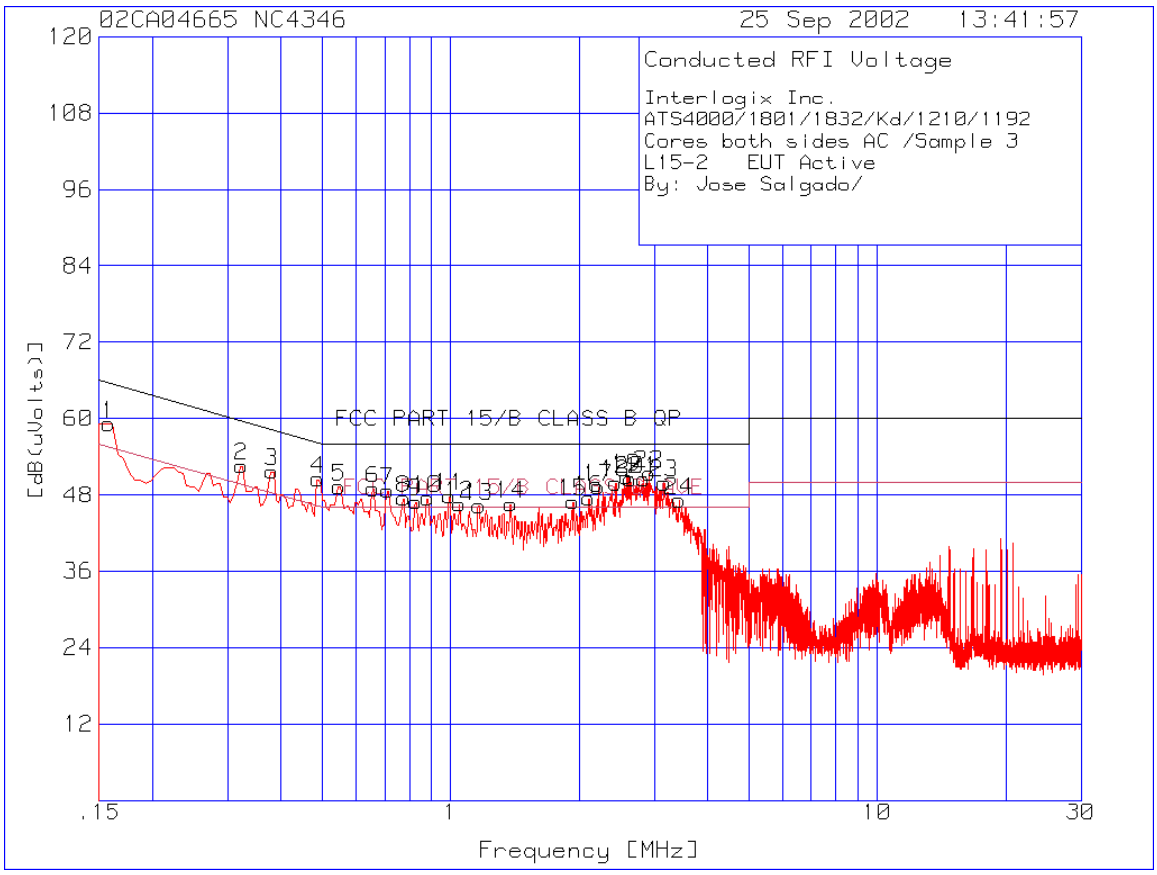
File: CVL11_4QP.TXT
Date: 9/5/02

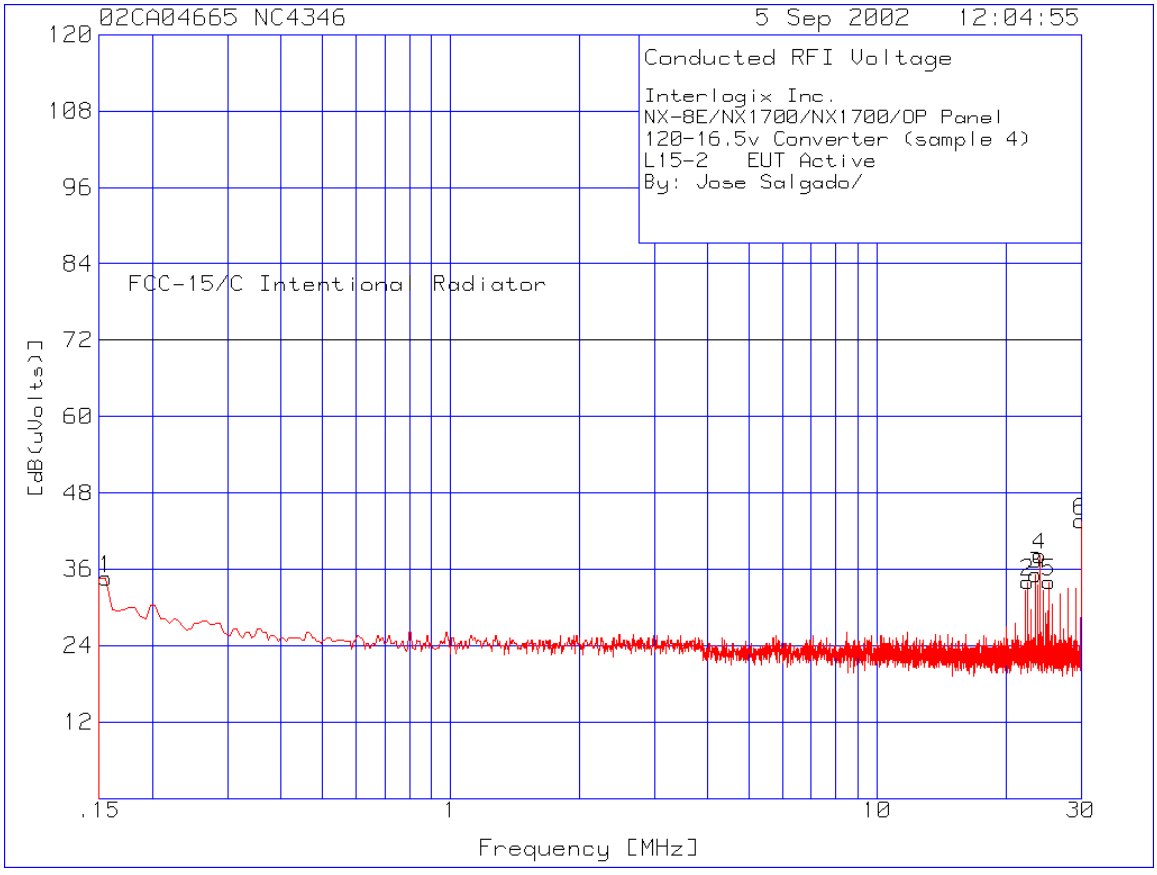
Tested By: Jose Salgado

Measurement Of Conducted Disturbance Voltage - Scan Line 2 (N)

Temp./Humidity/Atm. Pressure	**:**	22 °C/ 40 %RH/ 29.8 in Hg
Manufacturer	**:**	GE-Interlogix
Equipment Under Test (EUT)	**:**	Model ATS-1190, ATS-1192 and NX1700E
Operating Mode	**:**	AC Mains on
Applied Standard / Class	**:**	CFR Title 47, Pt. 15 / General Requirements
Detection Mode	**:**	Peak (pk)
Bandwidth	**:**	9 kHz for measurements 150 kHz to 30 MHz
Line	**:**	LN




02CA04665 NC4346
25 Sep 2002 13:41:57
Conducted RFI Voltage
Interlogix Inc.
ATS4000/1801/1832/Kd/1210/1192
Cores both sides AC /Sample 3
L15-2 EUT Active
By: Jose Salgado/
FCC PART 15/B CLASS B QP
dB(uVolts)
Frequency [MHz]
120
108
96
84
72
60
48
36
24
12
.15
1
10
30


02CA04665 NC4346
5 Sep 2002 12:04:55
Conducted RFI Voltage
Interlogix Inc.
NX-8E/NX1700/NX1700/DP Panel
120-16.5v Converter (sample 4)
L15-2 EUT Active
By: Jose Salgado/
FCC-15/C Intentional Radiator
dB(uVolts)
Frequency [MHz]
120
108
96
84
72
60
48
36
24
12
.15
1
10
30

Measurement Of Conducted Disturbance Voltage - Line 2 (N) Data

Temp./Humidity/Atm. Pressure	**:**	22 °C/ 40 %RH/ 29.8 in Hg
Manufacturer	**:**	GE-Interlogix
Equipment Under Test (EUT)	**:**	Model ATS-1190, ATS-1192 and NX1700E
Operating Mode	**:**	AC Mains on
Applied Standard / Class	**:**	CFR Title 47, Pt. 15 / General Requirements
Detection Mode	**:**	Quasi-peak (qp) or Average (av)
Bandwidth	**:**	9 kHz for measurements 150 kHz to 30 MHz
Line	**:**	LN

ATS 1190

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1
.20616	15.32qp	9.6	1.2	26.12	64.4
			Margin [dB]:		-38.28
1.1274	12.35qp	9.6	.1	22.05	56
			Margin [dB]:		-33.95
3.021	12.15qp	9.6	.1	21.85	56
			Margin [dB]:		-34.15
3.1791	12.12qp	9.6	.1	21.82	56
			Margin [dB]:		-34.18
5.27	17.07qp	9.6	.1	26.77	60
			Margin [dB]:		-33.23
5.7623	12.82qp	9.6	.1	22.52	60
			Margin [dB]:		-37.48

File: CVL21_2QP.TXT
Date: 9/5/02

ATS1192

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2
.15799	36.82qp	9.6	2	48.42	65.6	55.6
			Margin [dB]:		-17.18	-7.18
.32302	33.77qp	9.6	.7	44.07	59.6	49.6
			Margin [dB]:		-15.53	-5.53
.38158	31.9qp	9.6	.6	42.1	58.2	48.2
			Margin [dB]:		-16.1	-6.1
.48806	30.87qp	9.6	.2	40.67	56.2	46.2
			Margin [dB]:		-15.53	-5.53
.54662	29.8qp	9.6	.2	39.6	56	46
			Margin [dB]:		-16.4	-6.4
.65841	30.7qp	9.6	.1	40.4	56	46
			Margin [dB]:		-15.6	-5.6
.71165	29.92qp	9.6	.1	39.62	56	46
			Margin [dB]:		-16.38	-6.38
.77554	30.65qp	9.6	.1	40.35	56	46
			Margin [dB]:		-15.65	-5.65
.82877	29.1qp	9.6	.1	38.8	56	46
			Margin [dB]:		-17.2	-7.2
.88201	28.05qp	9.6	.1	37.75	56	46
			Margin [dB]:		-18.25	-8.25
.99381	28.37qp	9.6	.1	38.07	56	46
			Margin [dB]:		-17.93	-7.93
1.04704	28.22qp	9.5	.1	37.82	56	46
			Margin [dB]:		-18.18	-8.18
1.16417	30qp	9.5	.1	39.6	56	46
			Margin [dB]:		-16.4	-6.4
1.38244	27qp	9.6	.1	36.7	56	46
			Margin [dB]:		-19.3	-9.3
1.9361	27.27qp	9.6	.1	36.97	56	46
			Margin [dB]:		-19.03	-9.03
2.10646	28.75qp	9.6	.1	38.45	56	46
			Margin [dB]:		-17.55	-7.55
2.21826	30.47qp	9.6	.1	40.17	56	46
			Margin [dB]:		-15.83	-5.83
2.43653	30.4qp	9.6	.1	40.1	56	46
			Margin [dB]:		-15.9	-5.9
2.58027	32.47qp	9.6	.1	42.17	56	46
			Margin [dB]:		-13.83	-3.83
2.63351	32.42qp	9.6	.1	42.12	56	46
			Margin [dB]:		-13.88	-3.88
2.83315	34.27qp	9.6	.1	43.97	56	46
			Margin [dB]:		-12.03	-2.03
2.92099	33.87qp	9.6	.1	43.57	56	46
			Margin [dB]:		-12.43	-2.43
3.16588	31.82qp	9.6	.1	41.52	56	46
			Margin [dB]:		-14.48	-4.48
3.43206	28.2qp	9.6	.1	37.9	56	46
			Margin [dB]:		-18.1	-8.1

File: Cvl22_3qp.txt
Date: 9/25/02

ATS1192

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1	2
.15799	24.04av	9.6	2	35.64	65.6	55.6
			Margin [dB]:		-29.96	-19.96
.32302	20.85av	9.6	.7	31.15	59.6	49.6
			Margin [dB]:		-28.45	-18.45
.38158	17.09av	9.6	.6	27.29	58.2	48.2
			Margin [dB]:		-30.91	-20.91
.48806	20.28av	9.6	.2	30.08	56.2	46.2
			Margin [dB]:		-26.12	-16.12
.54662	16.92av	9.6	.2	26.72	56	46
			Margin [dB]:		-29.28	-19.28
.65841	17.07av	9.6	.1	26.77	56	46
			Margin [dB]:		-29.23	-19.23
.71165	17.39av	9.6	.1	27.09	56	46
			Margin [dB]:		-28.91	-18.91
.77554	18.38av	9.6	.1	28.08	56	46
			Margin [dB]:		-27.92	-17.92
.82877	16.01av	9.6	.1	25.71	56	46
			Margin [dB]:		-30.29	-20.29
.88201	15.41av	9.6	.1	25.11	56	46
			Margin [dB]:		-30.89	-20.89
.99381	15.61av	9.6	.1	25.31	56	46
			Margin [dB]:		-30.69	-20.69
1.04704	15.32av	9.5	.1	24.92	56	46
			Margin [dB]:		-31.08	-21.08
1.16417	17.08av	9.5	.1	26.68	56	46
			Margin [dB]:		-29.32	-19.32
1.38244	13.54av	9.6	.1	23.24	56	46
			Margin [dB]:		-32.76	-22.76
1.9361	14.82av	9.6	.1	24.52	56	46
			Margin [dB]:		-31.48	-21.48
2.10646	14.11av	9.6	.1	23.81	56	46
			Margin [dB]:		-32.19	-22.19
2.21826	13.88av	9.6	.1	23.58	56	46
			Margin [dB]:		-32.42	-22.42
2.43653	13.67av	9.6	.1	23.37	56	46
			Margin [dB]:		-32.63	-22.63
2.58027	16.33av	9.6	.1	26.03	56	46
			Margin [dB]:		-29.97	-19.97
2.63351	14.3av	9.6	.1	24	56	46
			Margin [dB]:		-32	-22
2.83315	16.79av	9.6	.1	26.49	56	46
			Margin [dB]:		-29.51	-19.51
2.92099	15.7av	9.6	.1	25.4	56	46
			Margin [dB]:		-30.6	-20.6
3.16588	14.32av	9.6	.1	24.02	56	46
			Margin [dB]:		-31.98	-21.98
3.43206	13.54av	9.6	.1	23.24	56	46
			Margin [dB]:		-32.76	-22.76

LIMIT 1: FCC PART 15/B CLASS B QP
LIMIT 2: FCC PART 15/B CLASS B AVE

File: Cvl22_3av.txt
Date: 9/25/02

NX1700E

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1
.20531	15.97qp	9.6	1.2	26.77	64.42
			Margin [dB]:		-37.65
22.5027	22.62qp	9.9	.1	32.62	60
			Margin [dB]:		-27.38
23.5028	22.5qp	9.9	.1	32.5	60
			Margin [dB]:		-27.50
24.0012	28.27qp	9.9	.1	38.27	60
			Margin [dB]:		-21.73
25.2527	23.3qp	9.9	.1	33.3	60
			Margin [dB]:		-26.70
29.9998	**33.32qp**	**9.9**	**.1**	**43.32**	**60**
			Margin [dB]:		**-16.68**

File: CVL21_4QP.TXT
Date: 9/5/02

Tested By: Jose Salgado

8 RADIATED EMISSIONS DATA

8.1 Radiated Emissions Test Procedure

This test procedure was conducted in accordance with the Radiated Emissions Test Procedure SOP-0152, in accordance with ANSI C63.4-1992 or FCC Part 15 (2002).

The radiated emissions were measured using two steps:

Preliminary measurements were performed with a spectrum analyzer scanning with peak detection and the appropriate receiver bandwidths for the frequency ranges covered. These initial, qualitative, surveys of emissions were performed in a shielded semi-anechoic chamber. For this step, the frequency range was divided into several sub-ranges, and a separate scan was taken for each. These measurements were performed for the horizontal and vertical receiving antenna polarities. Measurements were made while the EUT was rotated about it's vertical axis through a 360 degree azimuth, each frequency range was continuously swept, and the maximum emission levels recorded.

The scans for each polarity and frequency range were plotted and EUT signals shown as near or higher than the limit were marked.

The final, quantitative, measurement was made in an open area test site at a 3-meter distance on each of the emissions recorded as “marked traces.” These detected emissions were individually maximized by rotating the EUT about it's vertical axis through a 360 degree azimuth and varying the height of the receiving antenna from 1 to 4 m in both the horizontal and vertical polarities.

For all pre-scans the EUT was set to operate with the AC mains on and the transponder (card) not in the field of the sensor (polling mode), and also with the transponder in the field of the sensor (continual reading mode), to determine the worst-case emissions operating mode. Compliance measurements were made in continual reading mode below 30 MHz and in polling mode above 30 MHz.

8.2 Field Strength Calculations

7.2.1 The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain, if any, from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CF -AG, where

FS = Field Strength	RA = Receiver Amplitude
AF = Antenna Factor	CF = Cable Attenuation Factor
AG = Amplifier Gain	

Assume a logarithmic reading of 52.5 dB(µV) is obtained. The Antenna Factor of 7.4 and a Cable Factor of 1.1 is added. The Amplifier Gain of 29 dB is subtracted, giving a field strength of 32 dB(µV)/m. The 32 dB(µV)/m was mathematically converted to it’s corresponding linear level in µV/m:

FS = 52.5 + 7.4 + 1.1 - 29 = 32 dB(µV)/m

Level in µV/m = Common Antilogarithm [(32 dB(µV)/m)/20] = 39.8 µV/m

8.3 Radiated Emissions Test Results

The emissions measurements made in this configuration represent the worst-case emissions for this system. The preliminary peak scans for each frequency span and antenna orientation are provided on the following pages. Emissions requiring quasi-peak measurements are marked numerically. Other emissions may also be marked.

Measurements were started from 100 kHz as per FCC part 15 subpart C section 15.33 (a).

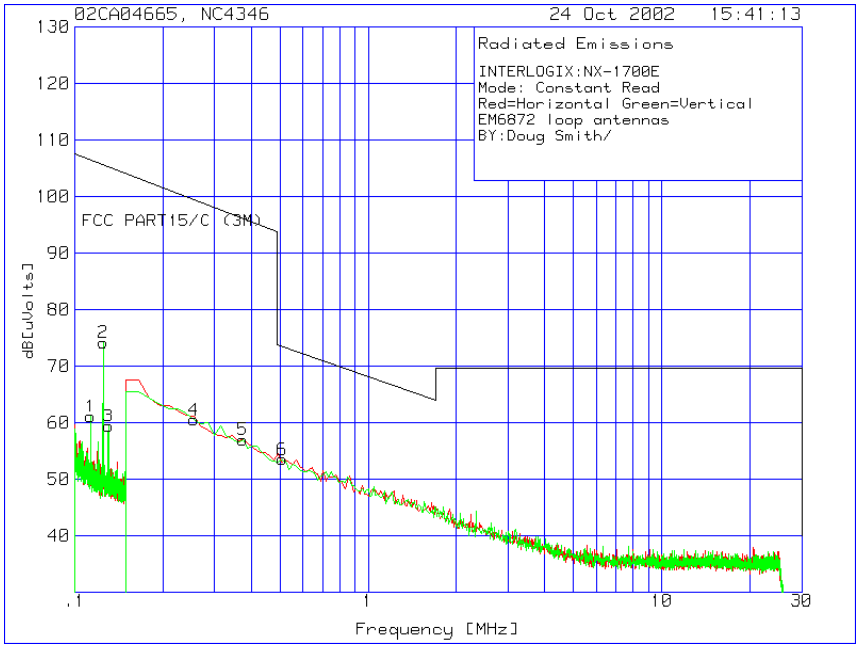
The final quasi-peak or average compliance data for each marked trace frequency that was found to be the EUT, is provided on separate pages following the preliminary peak scans.

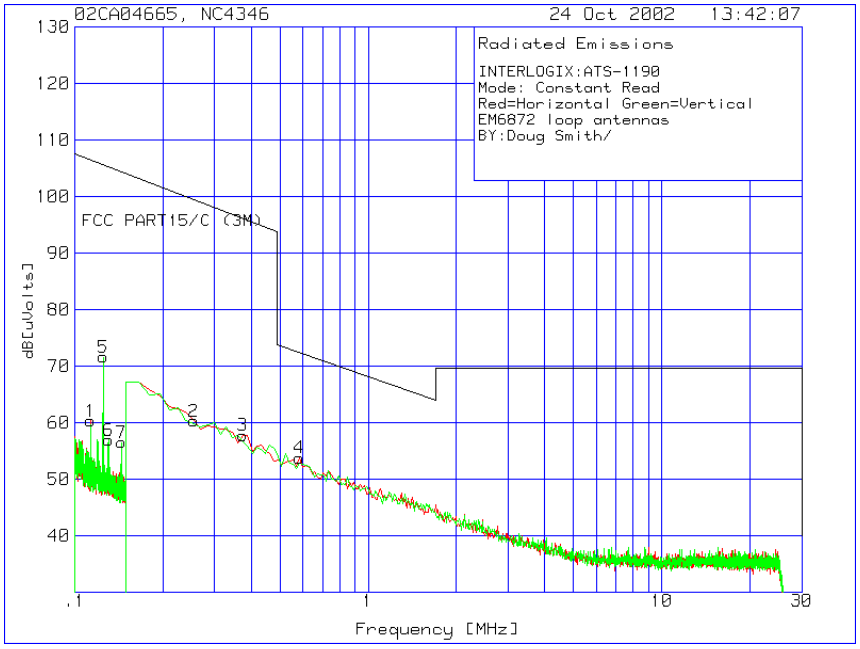
The measurements are in compliance since the quasi peak measurement(s) did not exceed the limit. The minimum margin between quasi-peak measurement and General Requirements limit was –8.55 dB(µV/m) at 47.46 MHz for the ATS-1190, -4.99 dB(µV/m) at 180.85 MHz for the ATS-1192. –9.7 dB(µV/m) at 46.72 MHz for the NX-1700E Master/Slave.

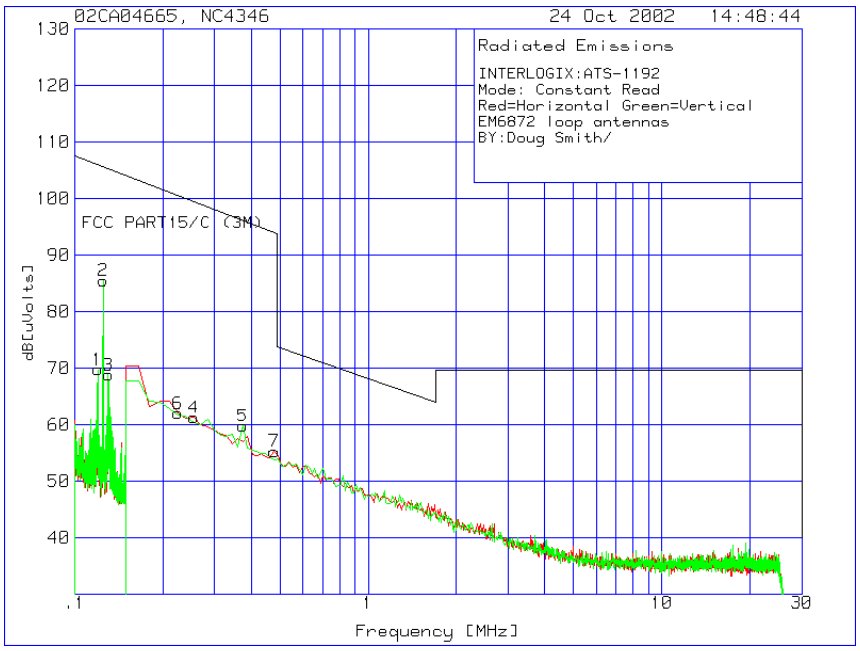
8.4 Radiated Emissions Test Data

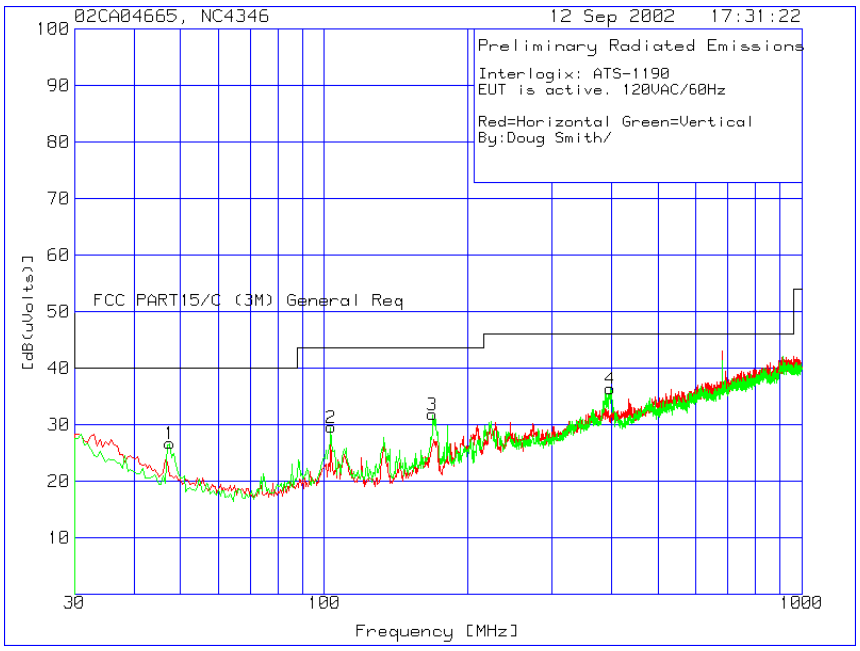
Measurement Of Radiated Emissions - Electric Field Precompliance, 3m Chamber Scan

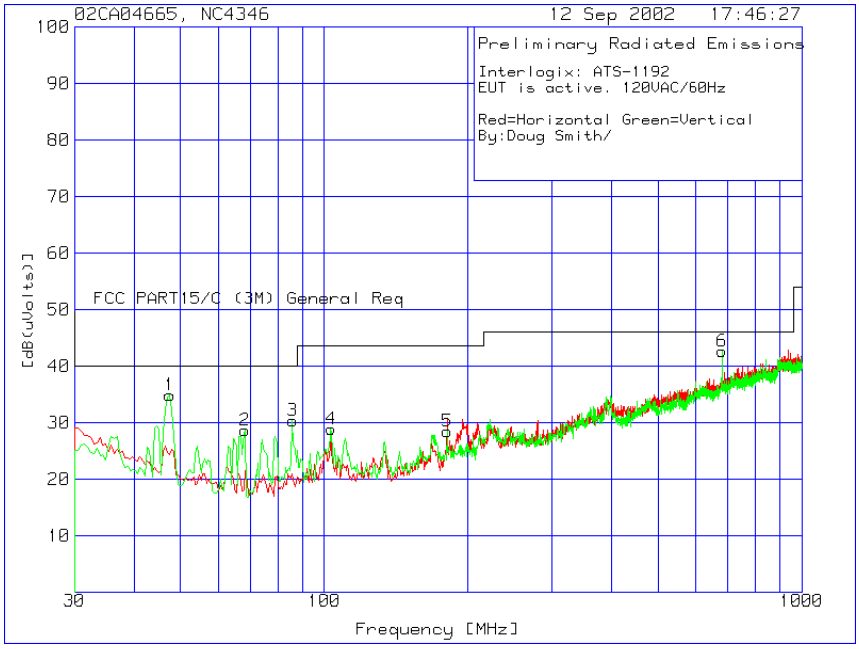
Temp./Humidity/Atm. Pressure	**:**	22 °C/ 40 %RH/ 29.8 in Hg
Manufacturer	**:**	GE-Interlogix
Equipment Under Test (EUT)	**:**	Model ATS-1190, ATS- 1192 and NX-1700E
Operating Mode	**:**	AC Mains on
Applied Standard/Class	**:**	CFR Title 47, PT. 15 / General Requirements
Detection Mode	**:**	Peak (pk)
Bandwidth	**:**	CISPR
Measurement Distance	**:**	3 meters.

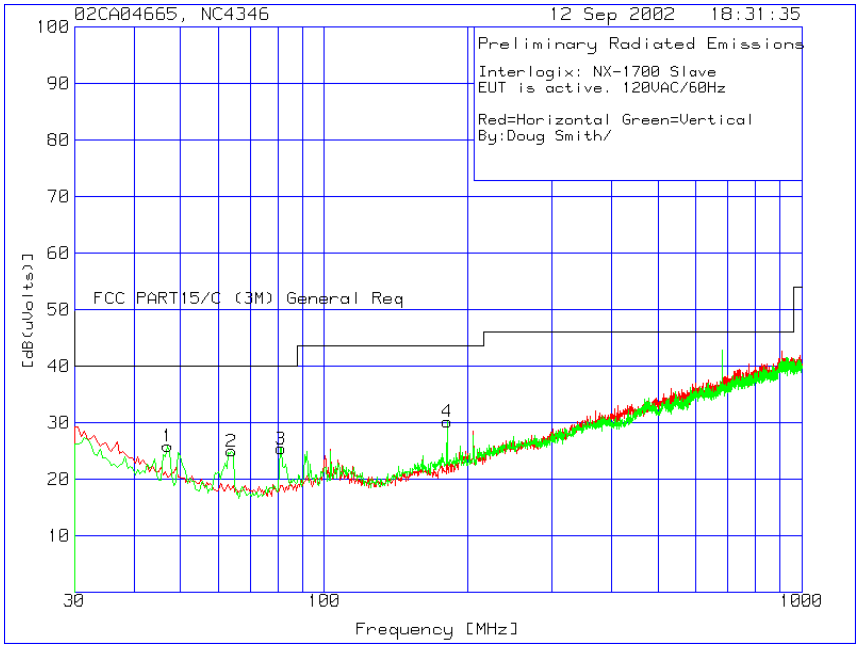


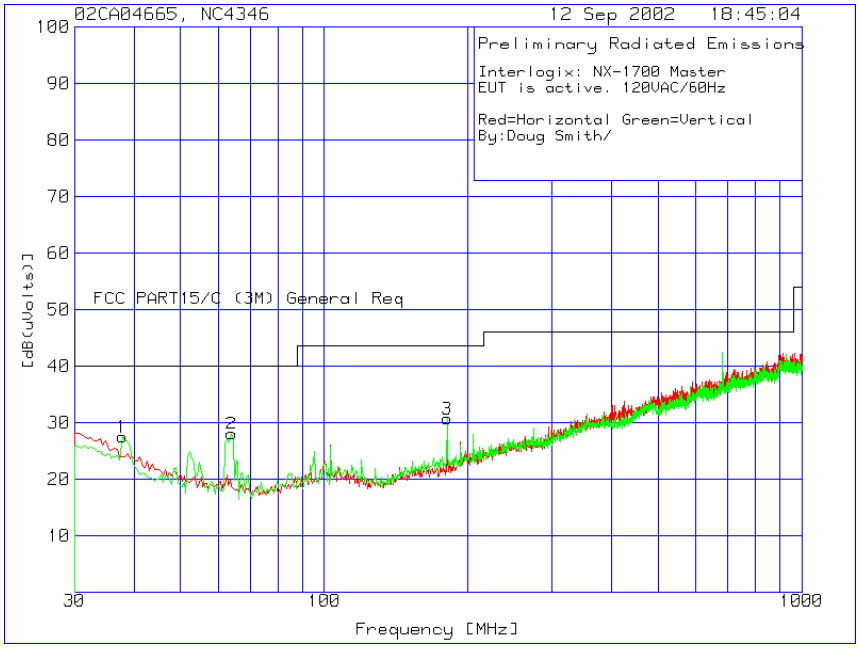



02CA04665, NC4346
24 Oct 2002 14:48:44
Radiated Emissions
INTERLOGIX:ATS-1192
Mode: Constant Read
Red=Horizontal Green=Vertical
EM6872 loop antennas
BY:Doug Smith/
FCC PART15/C (3M)
dBEuVolts]
Frequency [MHz]


02CA04665, NC4346
12 Sep 2002 17:31:22
Preliminary Radiated Emissions
Interlogix: ATS-1190
EUT is active. 120VAC/60Hz
Red=Horizontal Green=Vertical
By:Doug Smith/
FCC PART15/C (3M) General Req
[dB(uVolts)]
Frequency [MHz]


02CA04665, NC4346
12 Sep 2002 17:46:27
Preliminary Radiated Emissions
Interlogix: ATS-1192
EUT is active. 120VAC/60Hz
Red=Horizontal Green=Vertical
By:Doug Smith/
FCC PART15/C (3M) General Req
[dB(uVolts)]
Frequency [MHz]
100
90
80
70
60
50
40
30
20
10
30
100
1000


02CA04665, NC4346
12 Sep 2002 18:31:35
Preliminary Radiated Emissions
Interlogix: NX-1700 Slave
EUT is active. 120VAC/60Hz
Red=Horizontal Green=Vertical
By:Doug Smith/
FCC PART15/C (3M) General Req
[dB(uVolts)]
Frequency [MHz]
100
90
80
70
60
50
40
30
20
10
30
100
1000


02CA04665, NC4346
12 Sep 2002 18:45:04
Preliminary Radiated Emissions
Interlogix: NX-1700 Master
EUT is active. 120VAC/60Hz
Red=Horizontal Green=Vertical
By:Doug Smith/
FCC PART15/C (3M) General Req
[dB(uVolts)]
Frequency [MHz]
100
90
80
70
60
50
40
30
20
10
30
100
1000

Temp./Humidity/Atm. Pressure	**:**	22 °C/ 40 %RH/ 29.8 in Hg
Manufacturer	**:**	GE-Interlogix
Equipment Under Test (EUT)	**:**	Model ATS-1190, ATS- 1192 and NX-1700E
Operating Mode	**:**	AC Mains on
Applied Standard/Class	**:**	CFR Title 47, PT. 15 / General Requirements
Detection Mode	**:**	Quasi-peak (qp) or Peak (pk) or Average (av)
Bandwidth	**:**	CISPR
OATS Measurement Distance	**:**	3 meters.

NX-1700E
Mode: Constant Read

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts]	Limit:1
.1102	-8.13 av	-.03	64.97	56.81	106.76
Azimuth: 181	Height:0 Horz			Margin [dB]:	-49.95
.125	5.47 av	-.02	64.2	69.65	105.67
Azimuth: 36	Height:0 Horz			Margin [dB]:	-36.02
.1302	-16.48 av	-.02	63.93	47.43	105.31
Azimuth: 0	Height:0 Horz			Margin [dB]:	-57.88
.2459	.18 qp	-.01	58.79	58.96	99.79
Azimuth: 123	Height:0 Horz			Margin [dB]:	-40.83
.3747	-2.08 qp	.01	55.13	53.06	96.13
Azimuth: 0	Height:0 Horz			Margin [dB]:	-43.07
.5	-.12 qp	.03	52.3	52.21	73.64
Azimuth: 0	Height:0 Horz			Margin [dB]:	-21.43

File: re3m1_1qpAv.txt
Date: 10/24/02

ATS-1190
Mode: Constant Read

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts]	Limit:1
.1131	-2.49 av	-.03	64.82	62.3	106.53
Azimuth: 11	Height:0 Horz			Margin [dB]:	-44.23
.25	-.29 qp	-.01	58.65	58.35	99.65
Azimuth: 11	Height:0 Horz			Margin [dB]:	-41.3
.375	-2.17 qp	.01	55.13	52.97	96.12
Azimuth: 133	Height:0 Horz			Margin [dB]:	-43.15
.5	-2.1 qp	.03	52.3	50.23	73.64
Azimuth: 133	Height:0 Horz			Margin [dB]:	-23.41
.125	8.18 av	-.02	64.2	72.36	105.67
Azimuth: 264	Height:0 Horz			Margin [dB]:	-33.31
.1302	-8 av	-.02	63.93	55.91	105.32
Azimuth: 264	Height:0 Horz			Margin [dB]:	-49.41
.1446	-8.38 av	-.02	63.18	54.78	104.4
Azimuth: 274	Height:0 Horz			Margin [dB]:	-49.62

File: RE3MqpAv.txt
Date: 10/24/02

ATS-1192
Mode: Constant Read

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level dB[uVolts]	Limit:1
.1199	.57 av	-.02	64.47	65.02	106.03
Azimuth: 266	Height:0 Horz		Margin [dB]:		-41.01
.125	19.23 av	-.02	64.2	83.41	105.67
Azimuth: 33	Height:0 Horz		Margin [dB]:		-22.26
.1302	2.84 av	-.02	63.93	66.75	105.31
Azimuth: 88	Height:0 Horz		Margin [dB]:		-38.56
.2446	.37 qp	-.01	58.83	59.19	99.84
Azimuth: 202	Height:0 Horz		Margin [dB]:		-40.65
.2487	0 qp	-.01	58.69	58.68	99.69
Azimuth: 281	Height:0 Horz		Margin [dB]:		-41.01
.375	1.66 qp	.01	55.13	56.8	96.12
Azimuth: 71	Height:0 Horz		Margin [dB]:		-39.32
.4841	-2.58 qp	.03	52.65	50.1	93.9
Azimuth: 202	Height:0 Horz		Margin [dB]:		-43.8

File: RE3M1_3qpAv.txt
Date: 10/24/02

ATS1190

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1
47.4605	**19.73 qp**	**1.32**	**10.4**	**31.45**	**40**
Azimuth: 117	**Height:102**	**Vert**		**Margin [dB]:**	**-8.55**
168.6213	7.37 qp	2.58	16.3	26.25	43.5
Azimuth: 8	Height:102	Vert		Margin [dB]:	-17.25
396.9798	16.96 qp	4.12	16	37.08	46.02
Azimuth: 23	Height:100	Vert		Margin [dB]:	-8.94

File: OATS1_1.txt
Date: 9/12/02

ATS1192

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1
47.4786	20.81 qp	1.32	10.4	32.53	40
Azimuth: 114	Height:104	Vert		Margin [dB]:	-7.47
68.3	18.67 qp	1.56	5.3	25.53	40
Azimuth: 360	Height:135	Vert		Margin [dB]:	-14.47
85.74	21.93 qp	1.76	9.13	32.82	40
Azimuth: 279	Height:112	Vert		Margin [dB]:	-7.18
180.8553	**19.45 qp**	**2.66**	**16.4**	**38.51**	**43.5**
Azimuth: 274	**Height:100**	**Vert**		**Margin [dB]:**	**-4.99**

File: OATS1_2.txt
Date: 9/12/02

NX1700E Slave

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1
46.7238	17.07 qp	1.31	10.56	28.94	40
Azimuth: 59	Height:100	Vert		Margin [dB]:	-11.06
63.9946	18.81 qp	1.45	5.8	26.06	40
Azimuth: 20	Height:110	Vert		Margin [dB]:	-13.94
81.1	17.51 qp	1.7	7.77	26.98	40
Azimuth: 28	Height:135	Vert		Margin [dB]:	-13.02

File: OATS1_4.txt
Date: 9/12/02

NX1700E Master

Test Frequency [MHz]	Meter Reading [dB(uV)]	Gain/Loss Factor [dB]	Transducer Factor [dB]	Level [dB(uVolts)]	Limit:1
37.9408	**15.1 qp**	**1.15**	**14.05**	**30.3**	**40**
Azimuth: 356	**Height:100**	**Vert**		**Margin [dB]:**	**-9.7**
64	21.4 qp	1.45	5.8	28.65	40
Azimuth: 231	Height:100	Vert		Margin [dB]:	-11.35

File: OATS1_5.txt
Date: 9/12/02

Measurement Of Frequency Stability

Temp./Humidity/Atm. Pressure	**:**	22 °C/ 40 %RH/ 29.8 in Hg
Manufacturer	**:**	GE-Interlogix
Equipment Under Test (EUT)	**:**	Model ATS-1190, ATS- 1192 and NX1700E card readers.
Operating Mode	**:**	AC Mains on
Applied Standard/Class	**:**	CFR Title 47, PT. 15 / General Requirements
Detection Mode	**:**	Peak
Operating Voltage	**:**	120V ac / 60Hz
Fundamental Frequency	**:**	125 kHz

ATS-1190

% (Operating Voltage)	Peak Amplitude (dBuV)	Occupied Bandwidth (kHz)	Input Power (System)
100 (120)	39.50*	0.195	68.4w
85 (102)	39.30	0.180	63.2w
115 (138)	39.40	0.182	151.8w**

ATS-1192

% (Operating Voltage)	Peak Amplitude (dBuV)	Occupied Bandwidth (kHz)	Input Power (System)
100 (120)	60.0	0.177	61.2w
85 (102)	60.10*	0.180	63.2w
115 (138)	59.90	0.180	154.6w**

NX1700E (Master)

% (Operating Voltage)	Peak Amplitude (dBuV)	Occupied Bandwidth (kHz)	Input Power (System)
100 (120)	39.5*	0.195	68.4w
85 (102)	39.3	0.180	63.2
115 (138)	39.4	0.182	151.8**

NX1700E (Slave)

% (Operating Voltage)	Peak Amplitude (dBuV)	Occupied Bandwidth (kHz)	Input Power (System)
100 (120)	81.40*	0.140	19.2w
85 (102)	75.00	0.150	36.7w
115 (138)	60.00	0.170	37.3w**

Note: * Indicates worst-case peak amplitude and ** Indicates maximum input power for the tested operating voltage.

9 PHOTOS OF TESTED EQUIPMENT

Figure 9.1 Buss with 4.7k Ohm Terminating Resistors

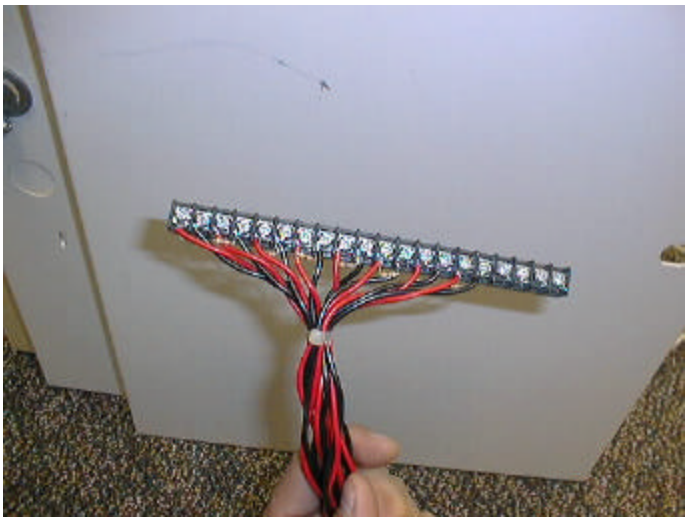


Figure 9.2 Buss with 4.7k Ohm Terminating Resistors

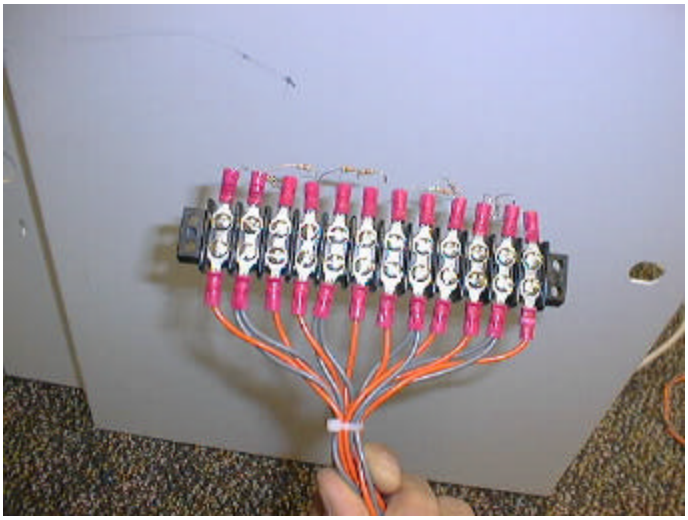


Figure 9.3 View of polarized connectors

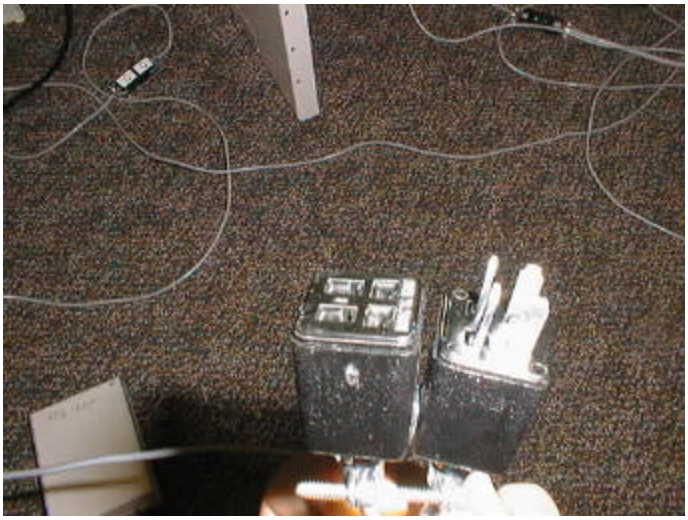


Figure 9.4 ATS-1190

Figure 9.5 ATS-1190

Figure 9.6 ATS-1190

Figure 9.7 ATS-1192

Figure 9.8 ATS-1192

Figure 9.9 NX-1700E

Figure 9.10 NX-1700E

Figure 9.11 NX-1700E

Figure 9.12 NX-1700E

Figure 9.13 NX-1700E

Figure 9.14 NX-1700E

10 ADDITIONAL PRODUCT INFORMATION

10.1 User Manual

(To be provided by the manufacturer)