Retlif Testing Laboratories

795 Marconi Avenue, Ronkonkoma, NY 11779
631-737-1500 - Fax: 631-737-1497

BRANCH LABORATORIES
101 New Boston Road
Goffstown, NH 03045
603-497-4600 Fax 603-497-5281

WASHINGTON
REGULATORY OFFICE
703-533-1614 Fax 703-533-1612

MEMBER ACIL

February 3, 2006

X-10 (USA) Inc.
19823 58th Place S.
Kent, WA 98032

Attention: Mr. Dave Rye

Dear Sir:

Enclosed you will find Retlif Testing Laboratories report R-11282-1 which covers your application for Certification, of a 924 MHz (FM) Wireless Transmitter, Model No: AT14A. This application was prepared as per your verbal authorization. As of February 3, 2006 the application was forwarded to TIMCO Engineering.

Thank you for this opportunity to be of service to you. Should you have any questions regarding the enclosed report feel free to contact me.

Very truly yours,

RETLIF TESTING LABORATORIES

M. White

Michelle White
EMC Publications Supervisor
mwhite@retlif.com

Enc. (as stated)

APPLICANT	MANUFACTURER
X-10 USA, Inc. 19823, 58th Place S. Kent, WA 98032	X-10 Electronics (Shenzhen) Co. Ltd. Together Rich Industrial Park B Sanwei Industrial District, Xixiang Town Baoan County, Shenzhen, China

TEST SPECIFICATION: FCC Rules and Regulations Part 15, Subpart C

TEST PROCEDURE: ANSI C63.4:2003

TEST SAMPLE DESCRIPTION

BRANDNAME: X-10

MODEL: AT14A FCC ID: B4SAT14A

TYPE: 924 MHz (FM) Wireless Transmitter

FREQUENCY RANGE: Channel 1: 924.19 MHz

Channel 2: 924.89 MHz

POWER REQUIREMENTS: 1.2 VDC (1) NiMH Rechargeable Battery

TESTS PERFORMED

- 15.249(a) Radiated Emissions, Fundamental and Harmonics
- 15.249(c) Band Edge Verification
- 15.249(c) Radiated Emissions, Spurious Case

REPORT OF MEASUREMENTS

Applicant:	X-10 (USA), Inc.
Device:	924 MHz (FM) Wireless Transmitter
FCC ID:	B4SAT14A
Power Requirements:	1.2 VDC (1) NiMH Rechargeable Battery
Applicable Rule Section:	Part 15, Subpart C, Section 15.249

TEST RESULTS

15.249(a): The unit operates in the 902 to 928 MHz band at 924.19 and 924.89 MHz. The field strength of the fundamental did not exceed 50 milliV/M Average. The field strength of the harmonics did not exceed 500 microV/M Average.

15.249(b): Field strength readings were taken at three meters unless otherwise noted.

15.249(c): Emissions radiated outside band edges were greater than 50 dB below the specified the level of the fundamental or met the general radiated emission requirements of 15.209(a), whichever provided the lesser attenuation.

15.249(d): The peak field strength of any emission did not exceed the maximum permitted average field strength by more than 20dB under any condition of modulation.

GENERAL NOTES

1. All measurements were made with a fully charged 1.2 VDC NiMH rechargeable battery installed in the unit.

2. All user accessible controls were adjusted to produce maximum emissions.

3. The device was tested with the following external accessories: I Pod NANO

4. The unit operates at the following frequencies: 924.19 and 924.89 MHz
   The unit was tested at the following frequency: 924.19 MHz

5. The frequency range was scanned from 30 MHz to 10 GHz. All emissions not reported were more than 20 dB below the specified limit.

EXHIBIT 4

Radiated Emissions, Fundamental & Harmonics

Para. 15.249(a)

Test Method:	FCC Part 15, Subpart C, Radiated Emissions, Fundamental & Harmonic Emissions 15.249(a)		
Customer:	X-10 Wireless Technology, Inc.	**Job No.**	R-11282-1
Test Sample:	924.19 MHz Wireless Transmitter	**Paragraph:**	15.249
Model No.:	AT14A	**FCC ID:**	B4SAT14A
Operating Mode:	Continuously Transmitting a 924.19 MHz signal, Tuned to channel 1.		
Technician:	R. Soodoo	**Date:**	January 19, 2006.

Notes: Test Distance: 3 Meters

Detector: Peak, unless otherwise specified

Test Freq.	Antenna Pol./Height	EUT Orientation	Peak Reading	Correction Factor	Corrected Reading	Converted Reading	Avg. Limit
MHz	(V/H)-Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
924.19	V / 2.0	X	65.9	8.8	74.7	5432.5	50000
|	V / 2.0	Y	62.2	8.8	71.0	3548.1	|
|	V / 1.0	Z	64.5	8.8	73.3	4623.8	|
|	H / 1.5	X	62.7	8.8	71.5	3758.4	|
|	H / 1.5	Y	63.5	8.8	72.3	4121.0	|
924.19	H / 2.0	Z	64.0	8.8	72.8	4365.2	50000
1848.4	V / 2.0	X	48.2	-2.5	45.7	192.8	500
|	V / 1.5	Y	49.9	-2.5	47.4	234.4	|
|	V / 1.75	Z	51.3	-2.5	48.8	275.4	|
|	H / 1.0	X	53.4	-2.5	50.9	350.8	|
|	H / 1.5	Y	52.4	-2.5	49.9	312.6	|
1848.4	H / 1.5	Z	49.3	-2.5	46.8	218.8	500
2772.5	V / 1.0	X	46.2	-1.2	45.0	177.8	500
|	V / 1.5	Y	46.4	-1.2	45.2	182.0	|
|	V / 1.5	Z	43.8	-1.2	42.6	134.9	|
|	H / 1.0	X	42.7	-1.2	41.5	136.5	|
|	H /1.5	Y	46.1	-1.2	44.9	175.8	|
2772.5	H / 1.5	Z	44.7	-1.2	43.5	149.6	500
3696.2	V / 1.0	X	44.8	1.9	46.7	*216.3	500
|	V / 1.0	Y	44.8	1.9	46.7	*216.3	|
|	V / 1.0	Z	44.8	1.9	46.7	*216.3	|
|	H / 1.0	X	42.0	1.9	43.9	*156.7	|
|	H / 1.0	Y	42.0	1.9	43.9	*156.7	|
3699.2	H /1.0	Z	42.0	1.9	43.9	*156.7	500
4620.9	V / 1.0	X	43.1	3.8	46.9	*221.3	500
|	V / 1.0	Y	43.1	3.8	46.9	*221.3	|
|	V / 1.0	Z	43.1	3.8	46.9	*221.3	|
|	H / 1.0	X	42.7	3.8	46.5	*211.3	|
|	H / 1.0	Y	42.7	3.8	46.5	*211.3	|
4620.9	H / 1.0	Z	42.7	3.8	46.5	*211.3	500
	The Frequency Range was scanned from the first to the tenth harmonic. All emissions not reported herein are at least 20 dB below the specified limit.						
	***=Noise Floor Measurements (Minimum system sensitivity)**						

Test Method:	FCC Part 15, Subpart C, Radiated Emissions, Fundamental & Harmonic Emissions 15.249(a)		
Customer:	X-10 Wireless Technology, Inc.	**Job No.**	R-11282-1
Test Sample:	924.19 MHz Wireless Transmitter	**Paragraph:**	15.249
Model No.:	AT14A	**FCC ID:**	B4SAT14A
Operating Mode:	Continuously Transmitting a 924.19 MHz signal, Tuned to channel 1.		
Technician:	R. Soodoo	**Date:**	January 18, 2006.

Notes: Test Distance: 3 Meters

Detector: Peak, unless otherwise specified

Test Freq.	Antenna	EUT	Peak	Correction	Corrected	Converted	Avg. Limit
MHz	(V/H)-Meters	X / Y / Z	dBuV	dB	dBuV/m	uV/m	uV/m
5545.1	V / 1.0	X	41.6	5.4	47.0	*223.9	500
|	V / 1.0	Y	41.6	5.4	47.0	*223.9	|
|	V / 1.0	Z	45.8	5.4	51.2	363.1	|
|	H / 1.0	X	43.7	5.4	49.1	285.1	|
|	H / 1.0	Y	42.2	5.4	47.6	239.9	|
5545.1	H / 1.0	Z	41.8	5.4	47.2	229.1	500
6469.3	V / 1.0	X	40.9	6.0	46.9	*221.3	500
|	V /1.0	Y	40.9	6.0	46.9	*221.3	|
|	V / 1.0	Z	40.9	6.0	46.9	*221.3	|
|	H / 1.0	X	40.0	6.0	46.0	*199.5	|
|	H / 1.0	Y	40.0	6.0	46.0	*199.5	|
6469.3	H / 1.0	Z	40.0	6.0	46.0	*199.5	500
7393.5	V / 1.0	X	++33.8	8.3	42.1	*127.4	500
|	V / 1.0	Y	++33.8	8.3	42.1	*127.4	|
|	V / 1.0	Z	++33.8	8.3	42.1	*127.4	|
|	H / 1.0	X	++33.8	8.3	42.1	*127.4	|
|	H / 1.0	Y	++33.8	8.3	42.1	*127.4	|
7393.5	H / 1.0	Z	++33.8	8.3	42.1	*127.4	500
8317.7	V / 1.0	X	++33.8	9.4	43.2	*144.5	500
|	V / 1.0	Y	++33.8	9.4	43.2	*144.5	|
|	V / 1.0	Z	++33.8	9.4	43.2	*144.5	|
|	H / 1.0	X	++33.8	9.4	43.2	*144.5	|
|	H / 1.0	Y	++33.8	9.4	43.2	*144.5	|
8317.7	H / 1.0	Z	++33.8	9.4	43.2	*144.5	500
9241.9	V / 1.0	X	++33.8	11.9	45.7	*192.8	500
|	V / 1.0	Y	++33.8	11.9	45.7	*192.8	|
|	V / 1.0	Z	++33.8	11.9	45.7	*192.8	|
|	H / 1.0	X	++33.8	11.9	45.7	*192.8	|
|	H / 1.0	Y	++33.8	11.9	45.7	*192.8	|
9241.9	H / 1.0	Z	++33.8	11.9	45.7	*192.8	500
	The Frequency Range was scanned from the first to the tenth harmonic. All emissions not reported herein are at least 20						
	***=Noise Floor Measurements (Minimum system sensitivity)**						

++ = 100 kHz RBW used to obtain minimum system
Sensitivity

EXHIBIT 4

Radiated Emissions, Spurious Emissions

Para. 15.249(c)

Test Method:	FCC Part 15, Subpart C, Spurious Case, Radiated Emissions, Paragraph 15.249(c)		
Customer:	X-10 Wireless Technology, Inc	**Job No.**	R-11282-1
Test Sample:	924.19 MHz Wireless Transmitter	**FCC ID:**	15.249 (c)
Model No.:	AT14A	**Serial No.:**	B4SAT14A
Operating Mode:	Continuously Transmitting a 924.19 MHz signal, Tuned to channel 1.		
Technician:	R. Soodoo	**Date:**	January 19, 2006.

Notes: Test Distance: 3 Meters Temp: 20°C Humidity: 21%

Detector: Quasi-Peak from 30 MHz to 1 GHz, Peak above 1 GHz

Frequency	Antenna Position	EUT Orientation	Meter Readings	Correction Factor	Corrected Reading	Converted Reading	LIMIT
MHz	(V/H) / Meters	Degrees	dBuV	dB	dBuV/m	uV/m	uV/m
30							100
|							|
|							|
|							|
|							|
|							|
|							|
88							100
88							150
|							|
|							|
|							|
|							|
|							|
|							|
|							|
|							|
|							|
216							150
216							200
|							|
|							|
|							|
|							|
960							200
960							500
|							|
|							|
|							|
|							|
10000							500

No Emissions Observed at specified test distance

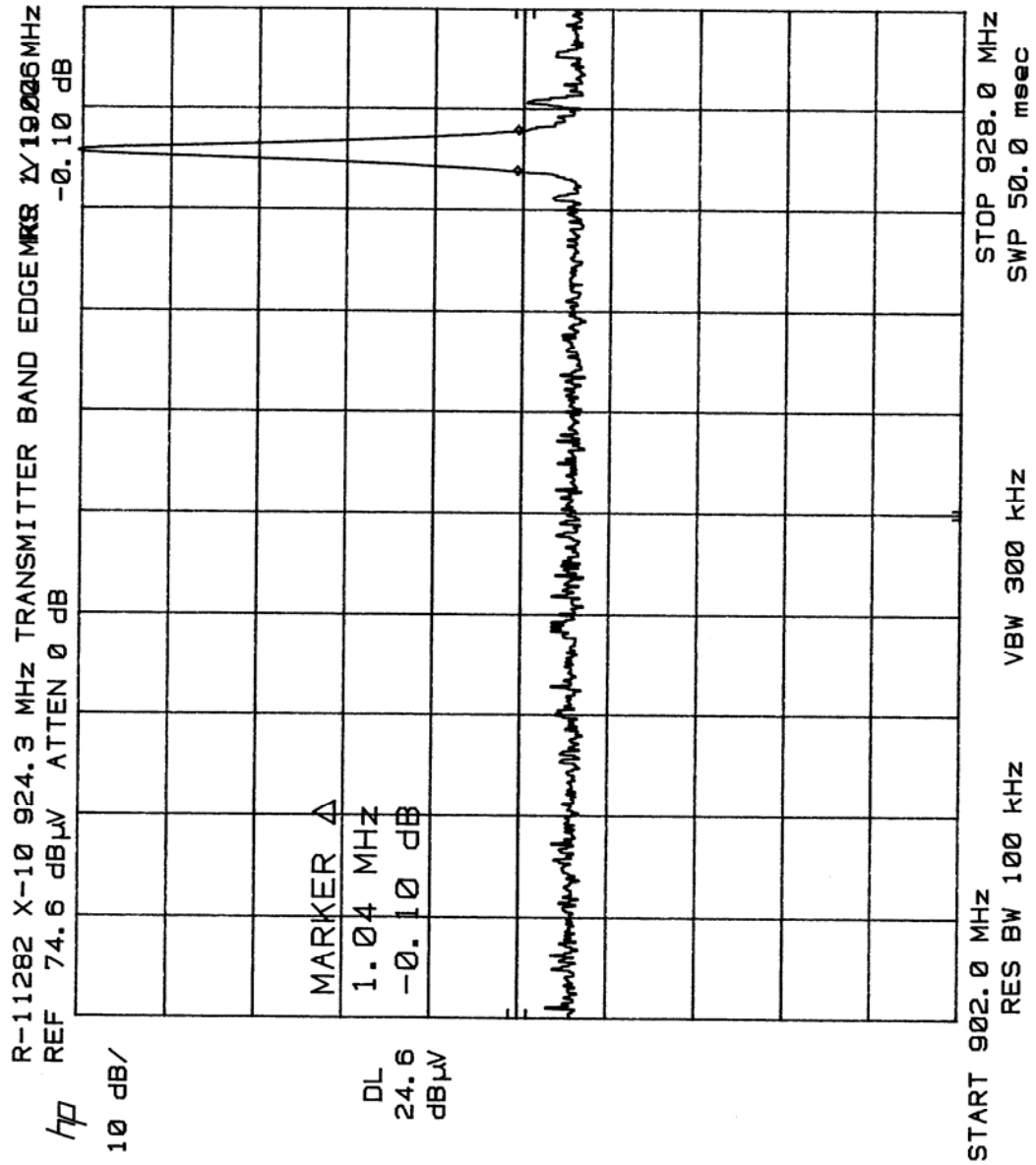
	The frequency range was scanned from 30 MHz to 10 GHz.
	The emissions observed from the EUT do not exceed the specified limits.
	Emissions not recorded were more than 20dB under the specified limit.

EXHIBIT 4

Band Edge Verification

Para. 15.249(c)

14A/CH1

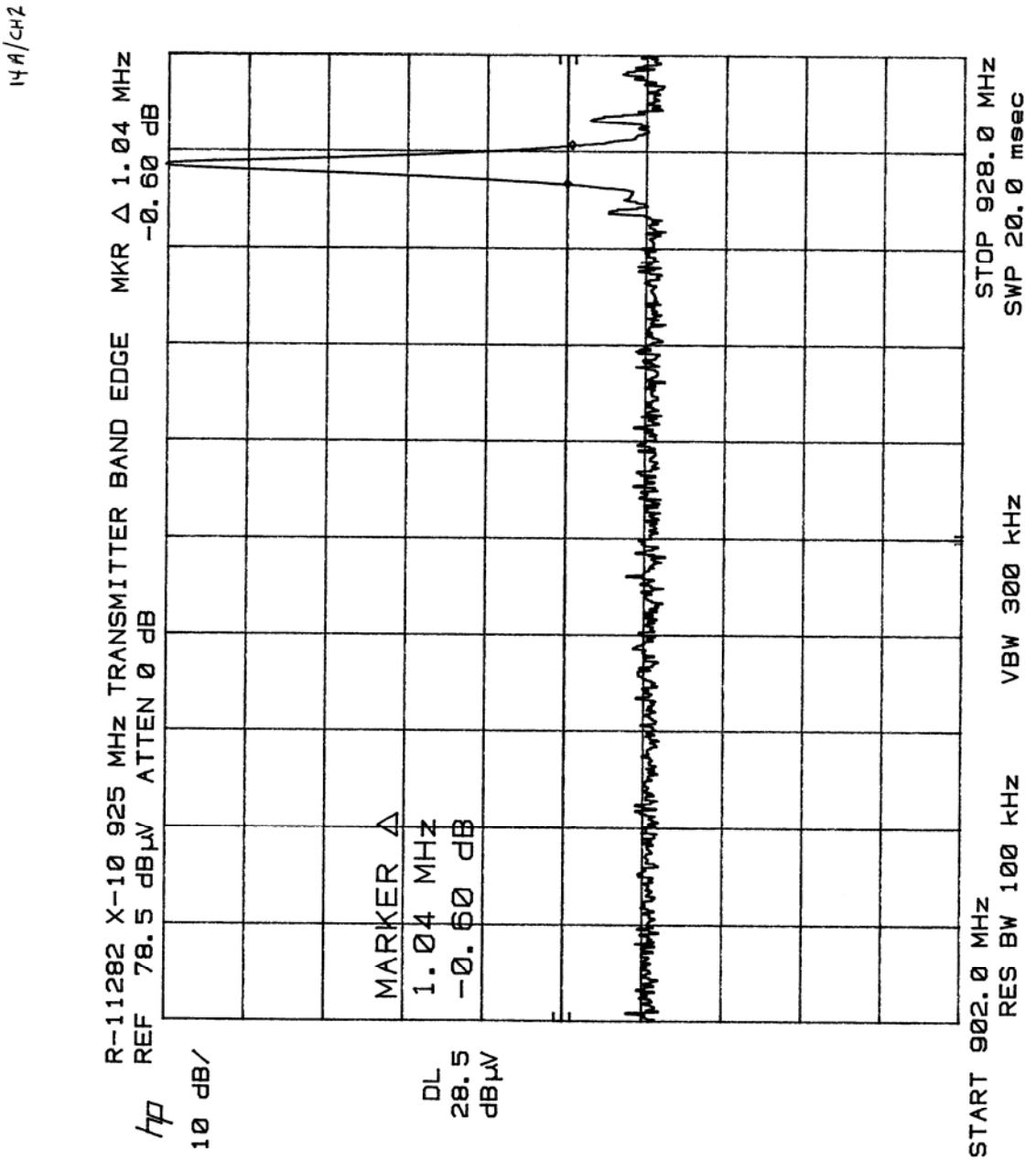


Test Method: FCC 15.249 (c) Band Edge verification (902MHz to 928MHz)
Note: Transmitted signal is at least 50dBc at the band edge.
Note: EUT transmitting on channel 1 at 924.19 MHz.

Customer	X-10 Wireless Technology, Inc.	
Test Sample	924.19 MHz Wireless Transmitter	
Model Number	AT14A	
Date: January 19, 2006.	Tech: R. Soodoo	Sheet 1 of 2

Retlif Testing Laboratories

Retlif Test Report R-11282-1



Test Method: FCC 15.249 (c) Band Edge verification (902MHz to 928MHz)
Note: Transmitted signal is at least 50dBc at the band edge.
Note: EUT transmitting on channel 2, at 924.89 MHz.

Customer	X-10 Wireless Technology, Inc.	
Test Sample	924.89 MHz Wireless Transmitter	
Model Number	AT14A	
Date: January 19, 2006.	Tech: R. Soodoo	Sheet 2 of 2

Retlif Testing Laboratories

Retlif Test Report R-11282-1

EQUIPMENT LIST

FCC Part 15, Subpart C, Radiated Emissions, Fundamental and Harmonics

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
128	Double Ridged Guide	Electro-Mechanics	1 GHz - 18 GHz	3105	3/9/2005	3/9/2006
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	6/9/2005	6/9/2006
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	8/28/2005	2/28/2006
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	2/9/2005	2/9/2006
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	8/28/2005	2/28/2006
141C	Cable	Retlif	1 GHz ~ 18 GHz	1 METER, BLUE	1/4/2006	1/4/2007
141D	Cable	Retlif	1 GHz ~ 18 GHz	10 METER, BLACK	1/4/2006	1/4/2007
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	6/9/2005	6/9/2006
523	Biconilog	Electro-Mechanics	26 - 2000 MHz	3142B	11/10/2005	11/10/2006
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	9/9/2005	9/9/2007
617	Interference Analyzer	Electro-Metrics	10 kHz - 1 GHz	EMC-30	2/4/2005	2/4/2006
723	H.P. Filter	Mini-Circuits	1 GHz	BHP-1000	7/20/2005	7/20/2006

EQUIPMENT LIST

FCC 15.249 Band Edge Verification (902 MHz to 928 MHz)

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	8/28/2005	2/28/2006
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	2/9/2005	2/9/2006
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	8/28/2005	2/28/2006

EQUIPMENT LIST

FCC Part 15, Subpart C, Spurious Case, Radiated Emissions, Paragraph 15.249 (c)

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due Date
128	Double Ridged Guide	Electro-Mechanics	1 GHz - 18 GHz	3105	3/9/2005	3/9/2006
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	6/9/2005	6/9/2006
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	8/28/2005	2/28/2006
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	2/9/2005	2/9/2006
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	8/28/2005	2/28/2006
141C	Cable	Retlif	1 GHz ~ 18 GHz	1 METER, BLUE	1/4/2006	1/4/2007
141D	Cable	Retlif	1 GHz ~ 18 GHz	10 METER, BLACK	1/4/2006	1/4/2007
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	6/9/2005	6/9/2006
523	Biconilog	Electro-Mechanics	26 - 2000 MHz	3142B	11/10/2005	11/10/2006
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	9/9/2005	9/9/2007
617	Interference Analyzer	Electro-Metrics	10 kHz - 1 GHz	EMC-30	2/4/2005	2/4/2006
723	H.P. Filter	Mini-Circuits	1 GHz	BHP-1000	7/20/2005	7/20/2006