

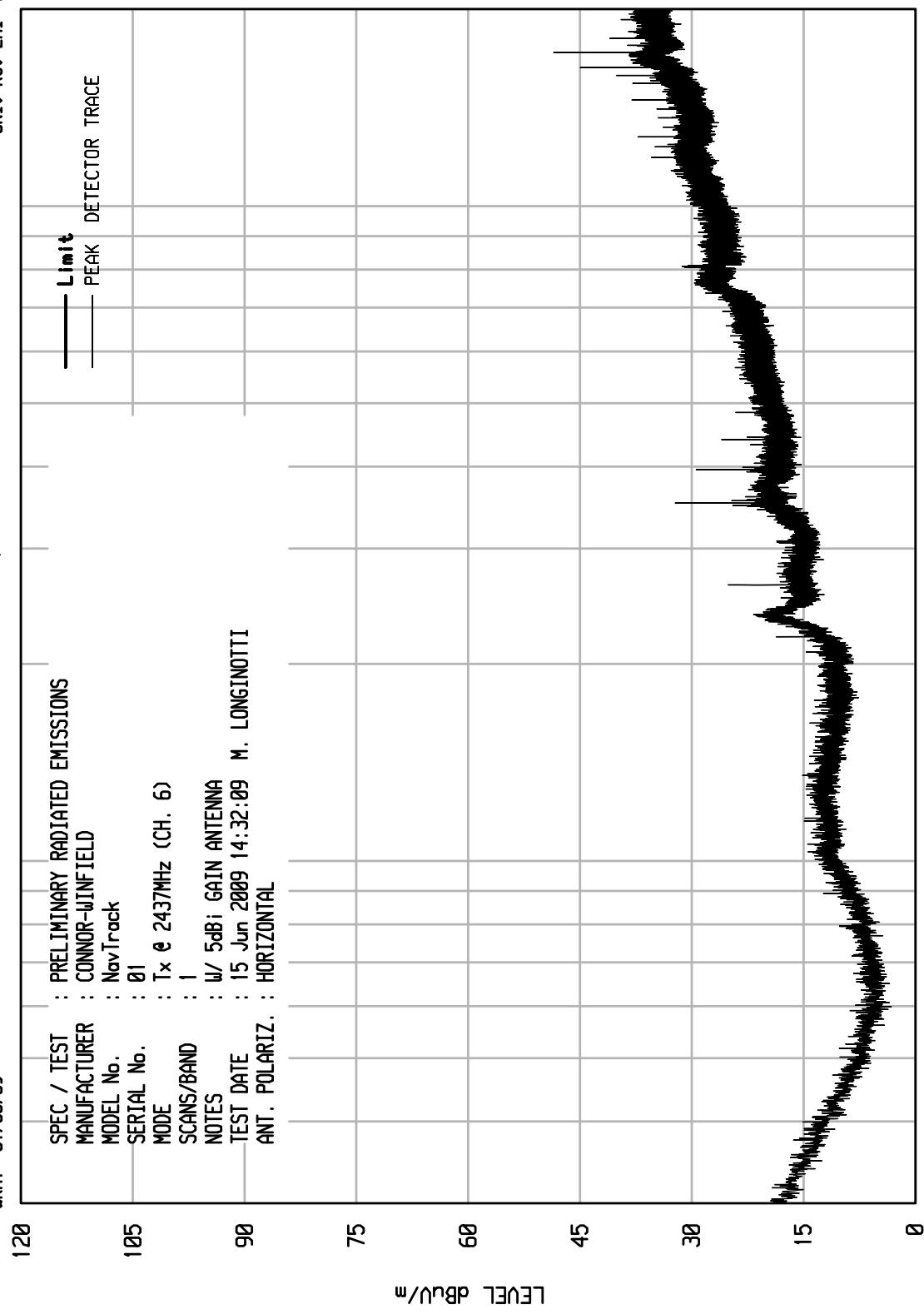
## ELITE ELECTRONIC ENGINEERING Inc.

Downers Grove, Ill. 60515

UNIV RCU EMI RUN 13

WKA1 01/30/09

SPEC / TEST		PRELIMINARY RADIATED EMISSIONS
MANUFACTURER	CONNOR-JINFIELD	
MODEL No.		
SERIAL No.	01	
MODE		Tx @ 2437MHz (CH. 6)
SCANS/BAND		W/ 5dBi GAIN ANTENNA
NOTES		
TEST DATE		15 Jun 2009 14:32:09
ANT. POLARIZ.		M. LONGINOTTI
ANT. POLARIZ.	HORIZONTAL	



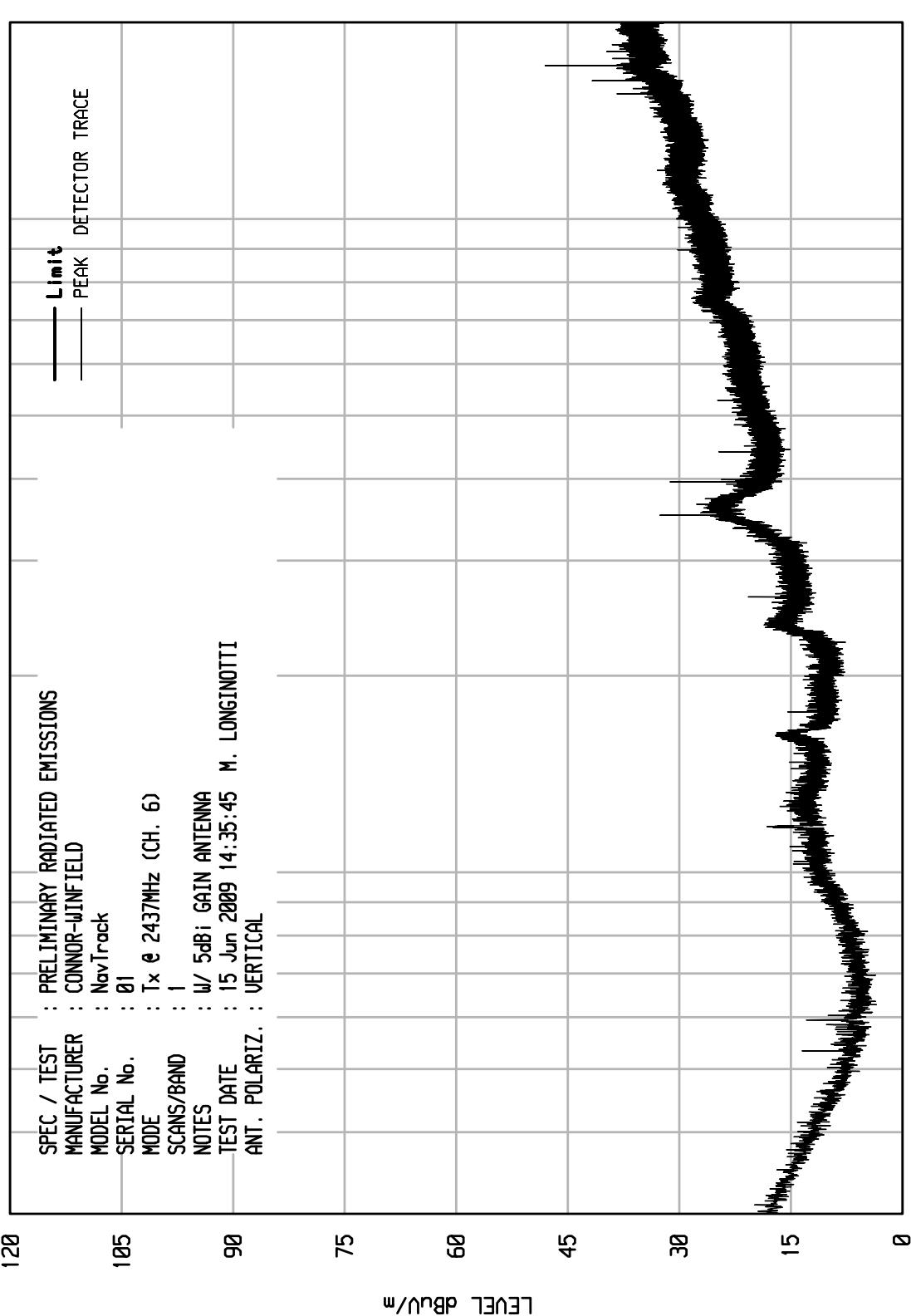
## ELITE ELECTRONIC ENGINEERING Inc.

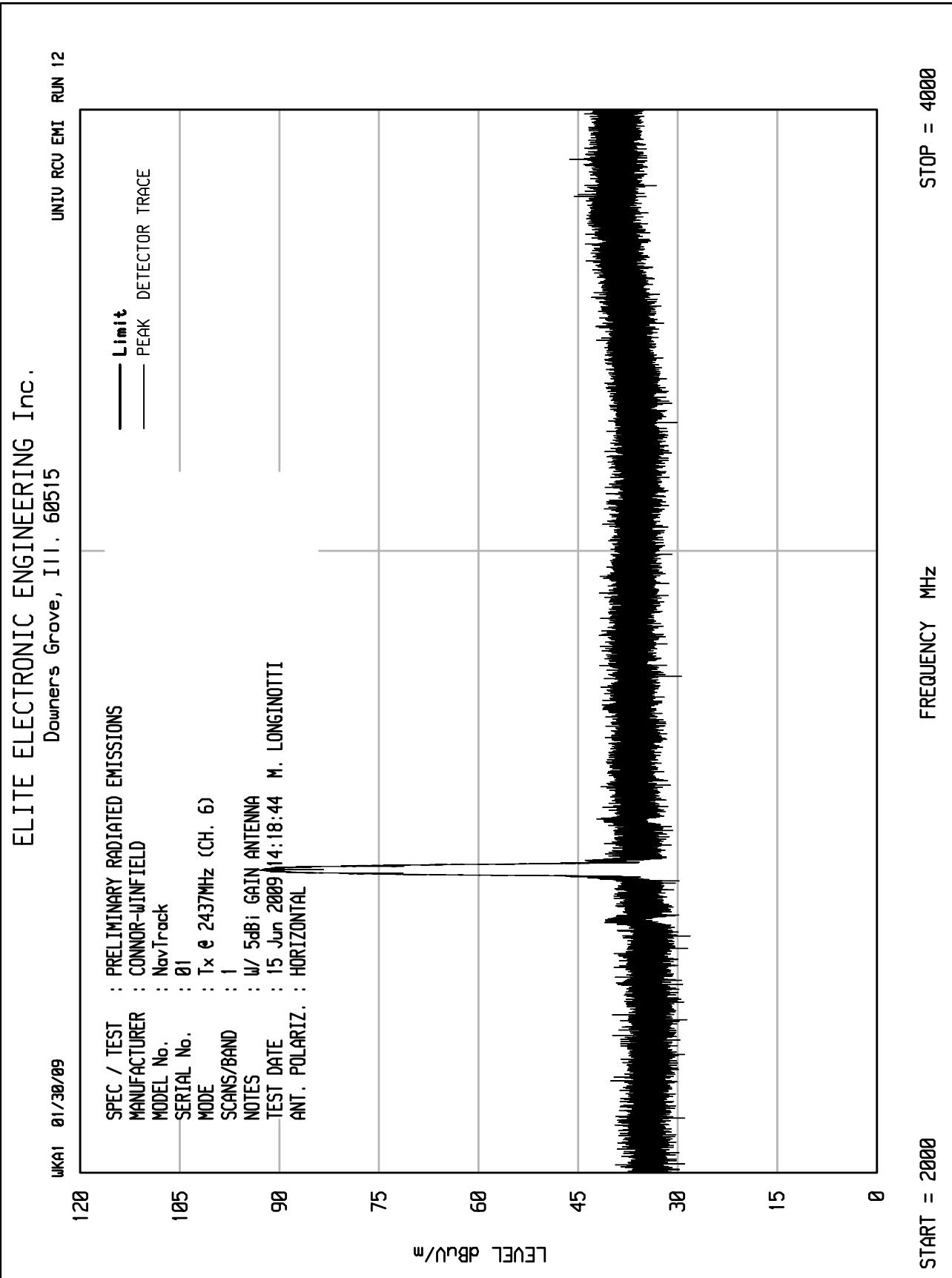
Downers Grove, Ill. 60515

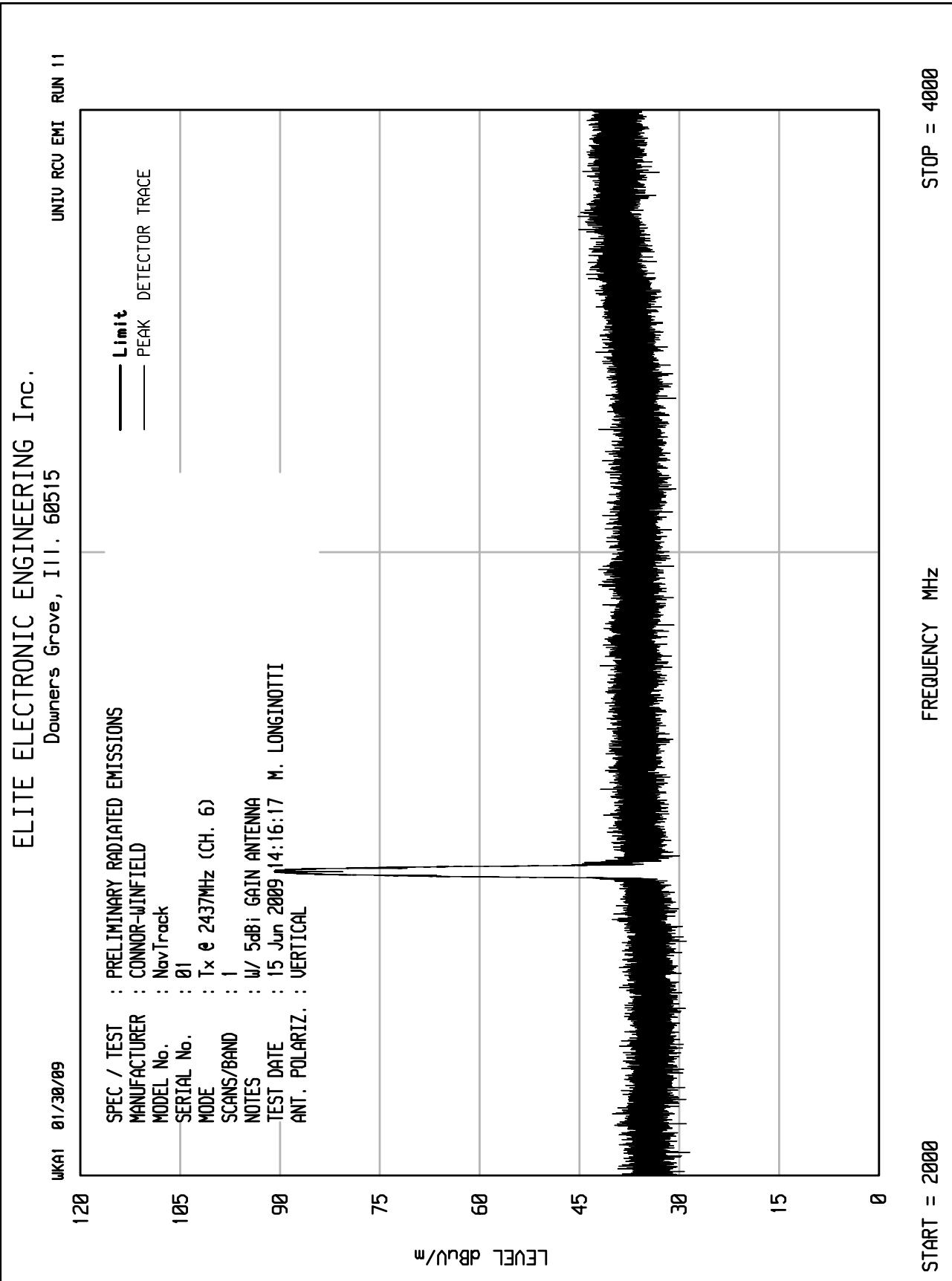
UNI U RCU EMI RUN 14

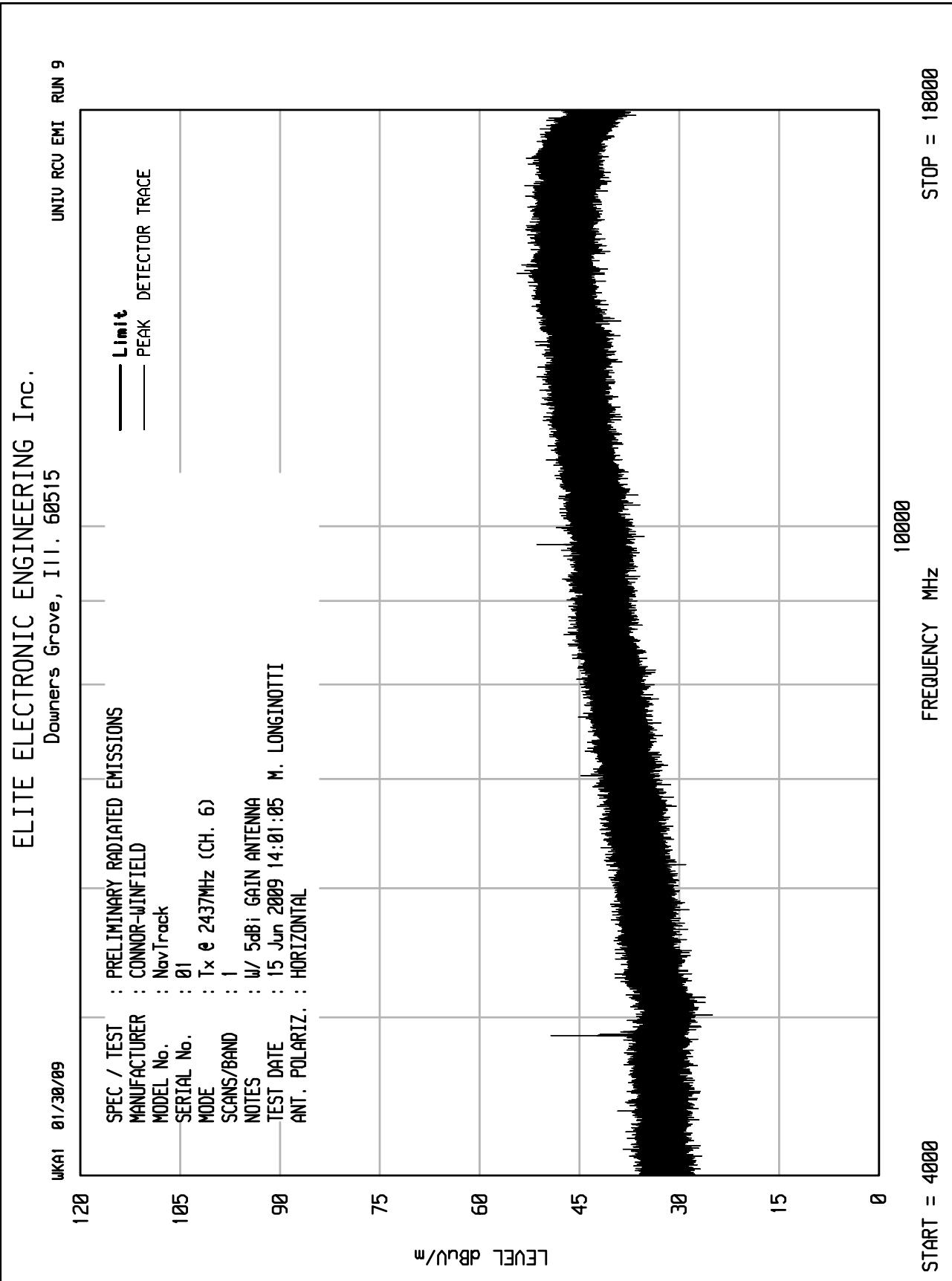
WKA1 01/38/09

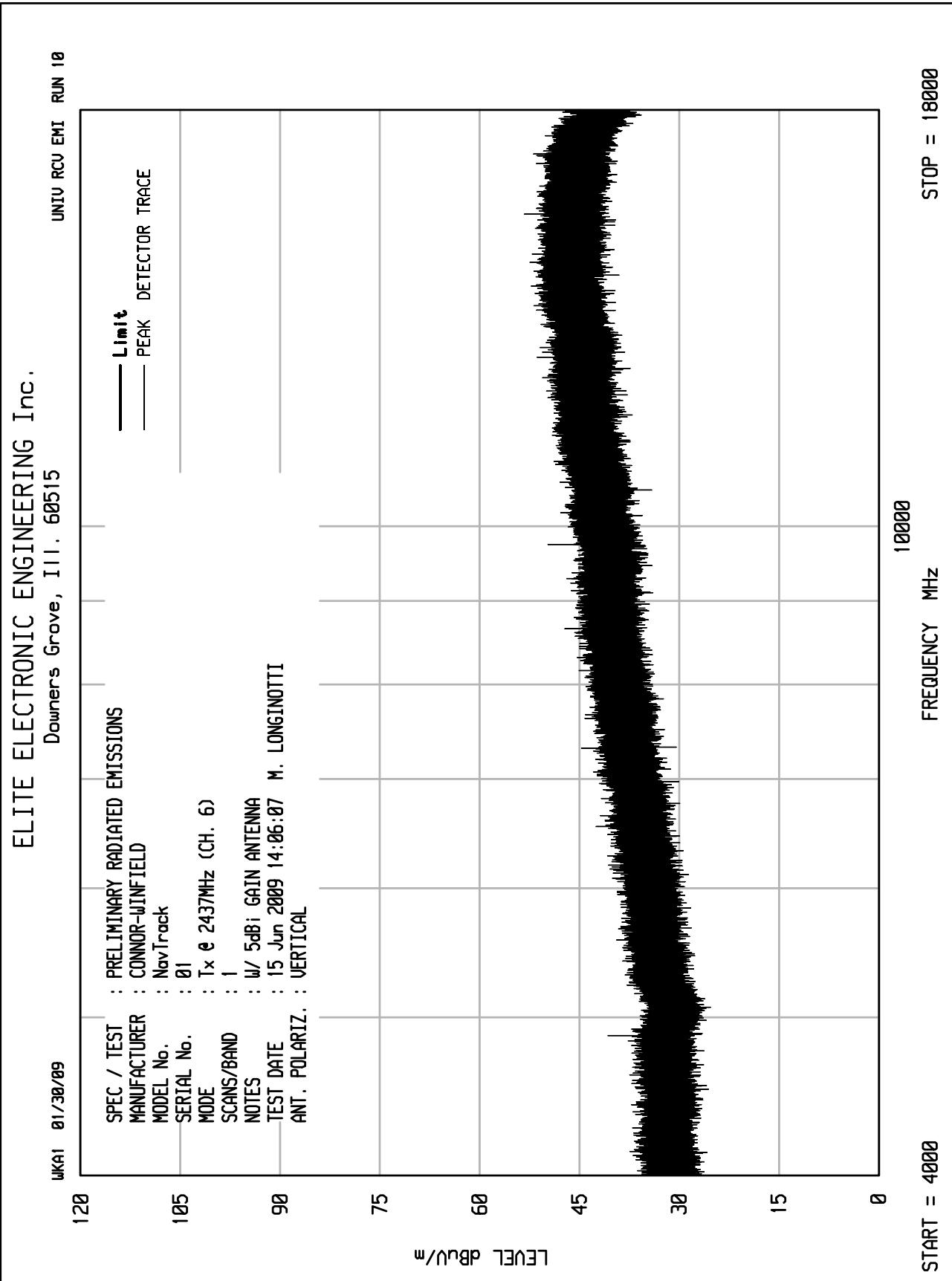
SPEC / TEST	: PRELIMINARY RADIATED EMISSIONS
MANUFACTURER	: CONNOR-JINFIELD
MODEL No.	: NavTrack
SERIAL No.	: 01
MODE	: Tx @ 2437MHz (CH. 6)
SCANS/BAND	: 1
NOTES	: w/ 5dBi GAIN ANTENNA
TEST DATE	: 15 Jun 2009 14:35:45
ANT. POLARIZ.	: VERTICAL

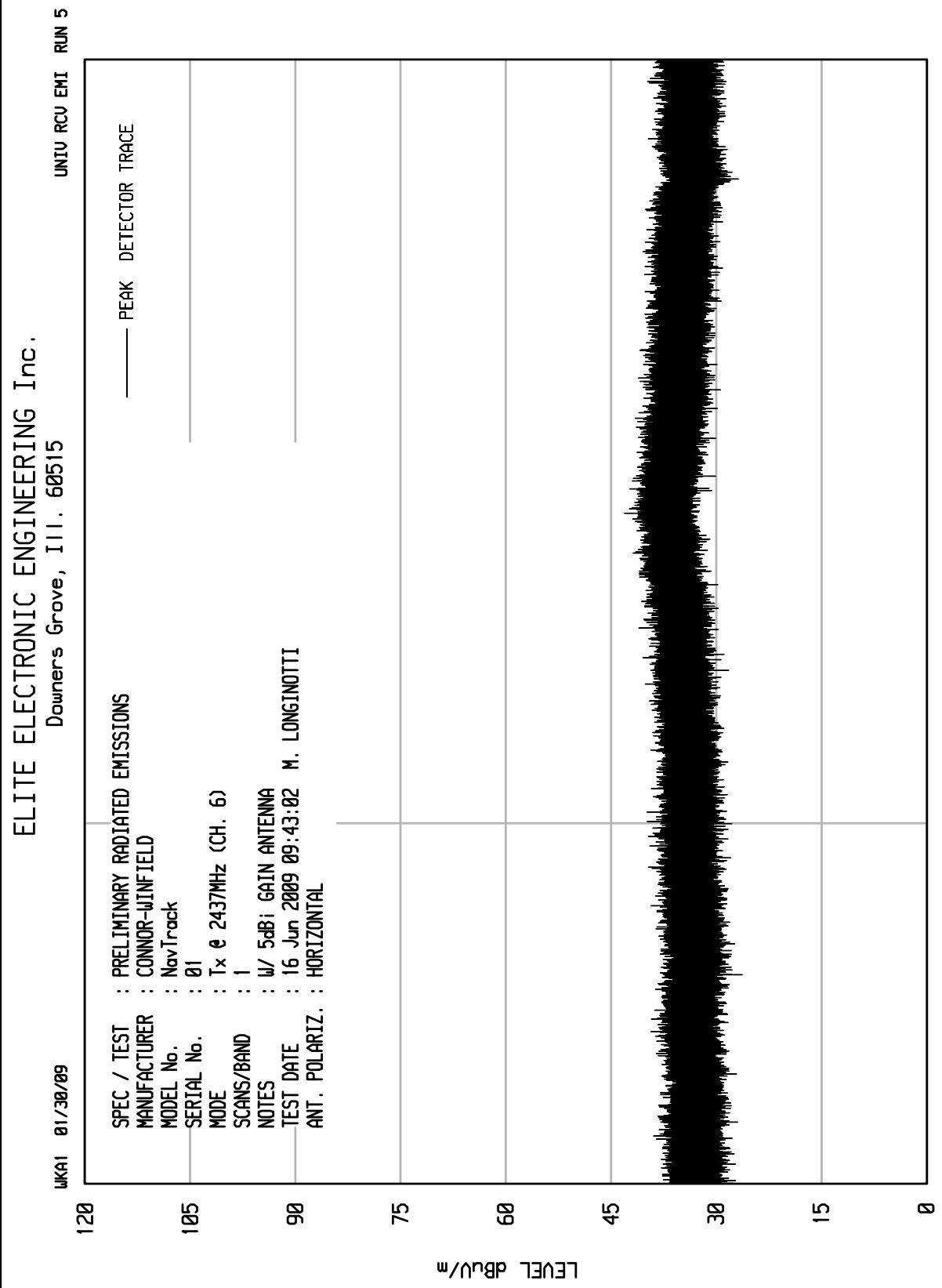


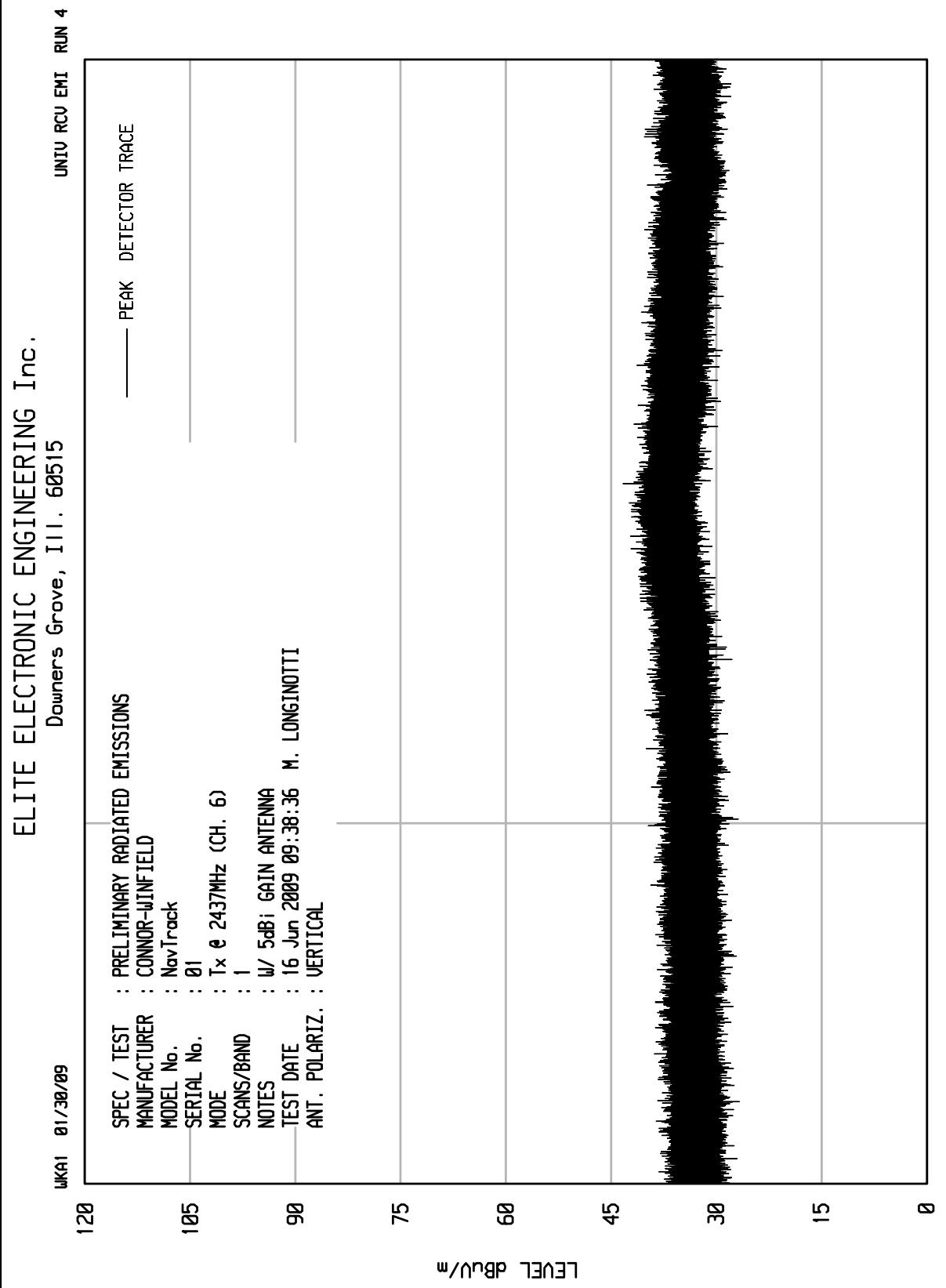










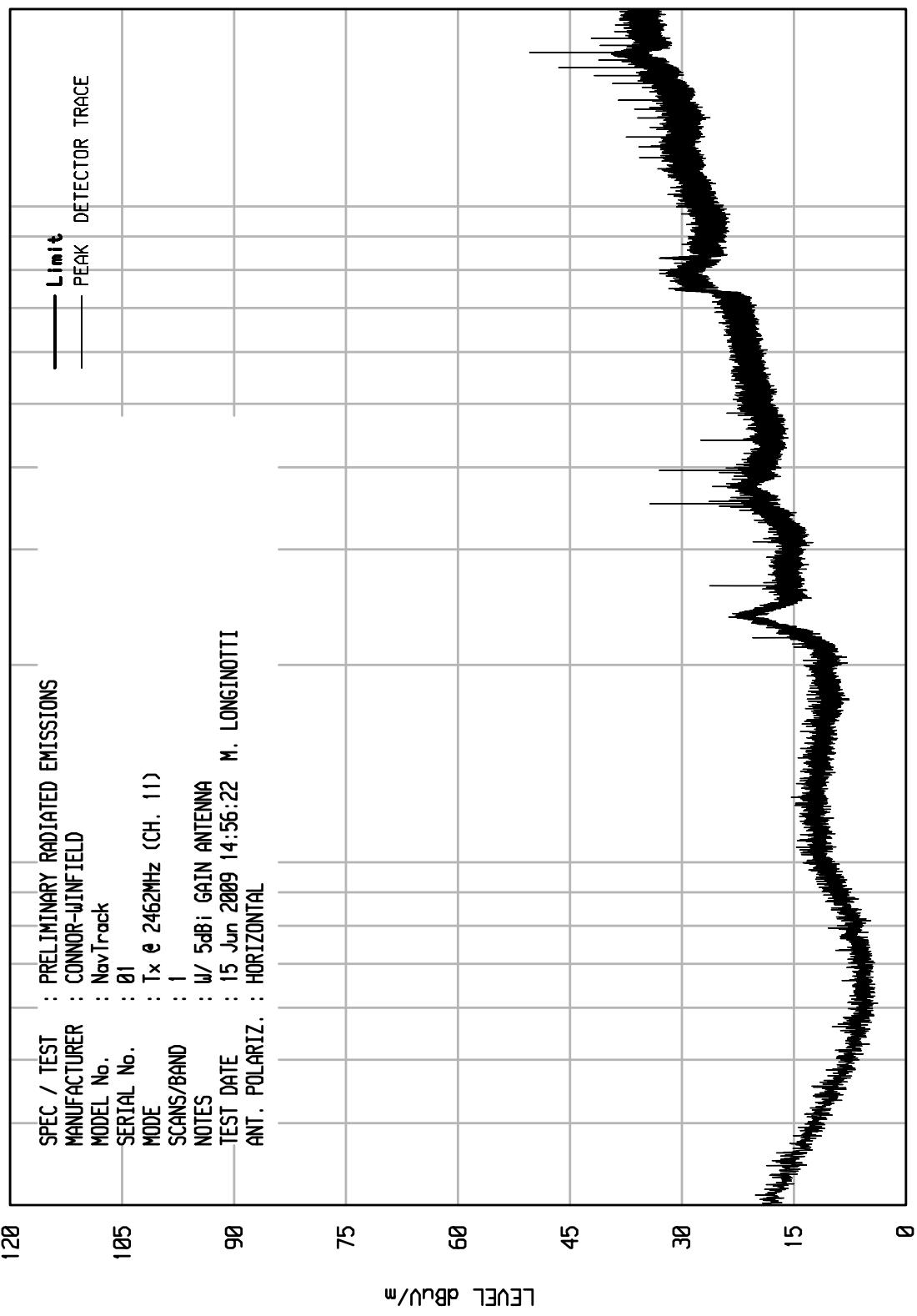


ELITE ELECTRONIC ENGINEERING Inc.  
 Downers Grove, Ill. 60515

UNIV RCU EMI RUN 17

WKAI 01/38/09

SPEC / TEST	: PRELIMINARY RADIATED EMISSIONS
MANUFACTURER	: CONNOR-JINFIELD
MODEL No.	: NavTrack
SERIAL No.	: 01
MODE	: Tx @ 2462MHz (CH. 11)
SCANS/BAND	: 1
NOTES	: w/ 5dBi GAIN ANTENNA
TEST DATE	: 15 Jun 2009 14:56:22
ANT. POLARIZ.	: HORIZONTAL



START = 30

FREQUENCY MHz

1000

STOP = 2000

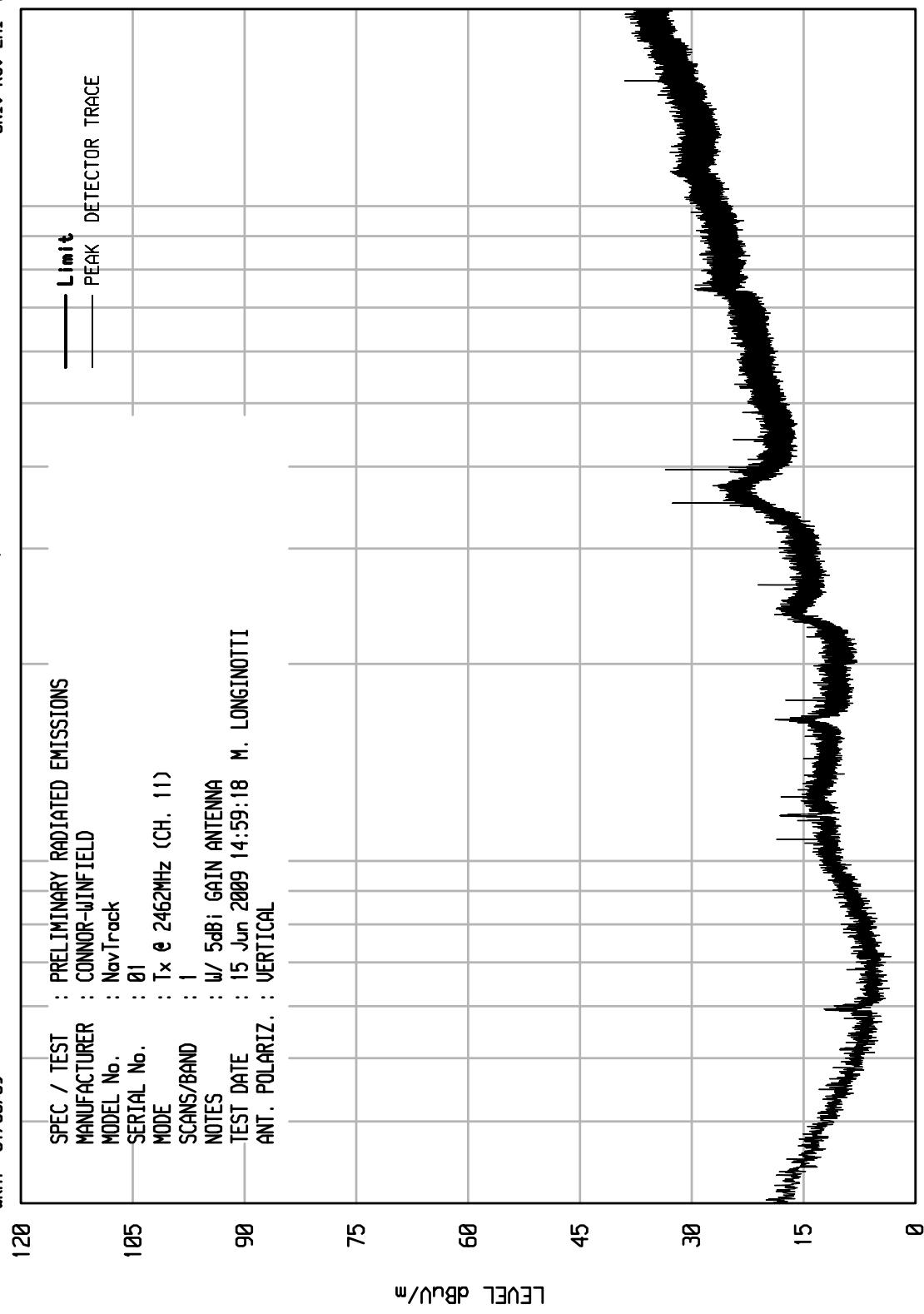
## ELITE ELECTRONIC ENGINEERING Inc.

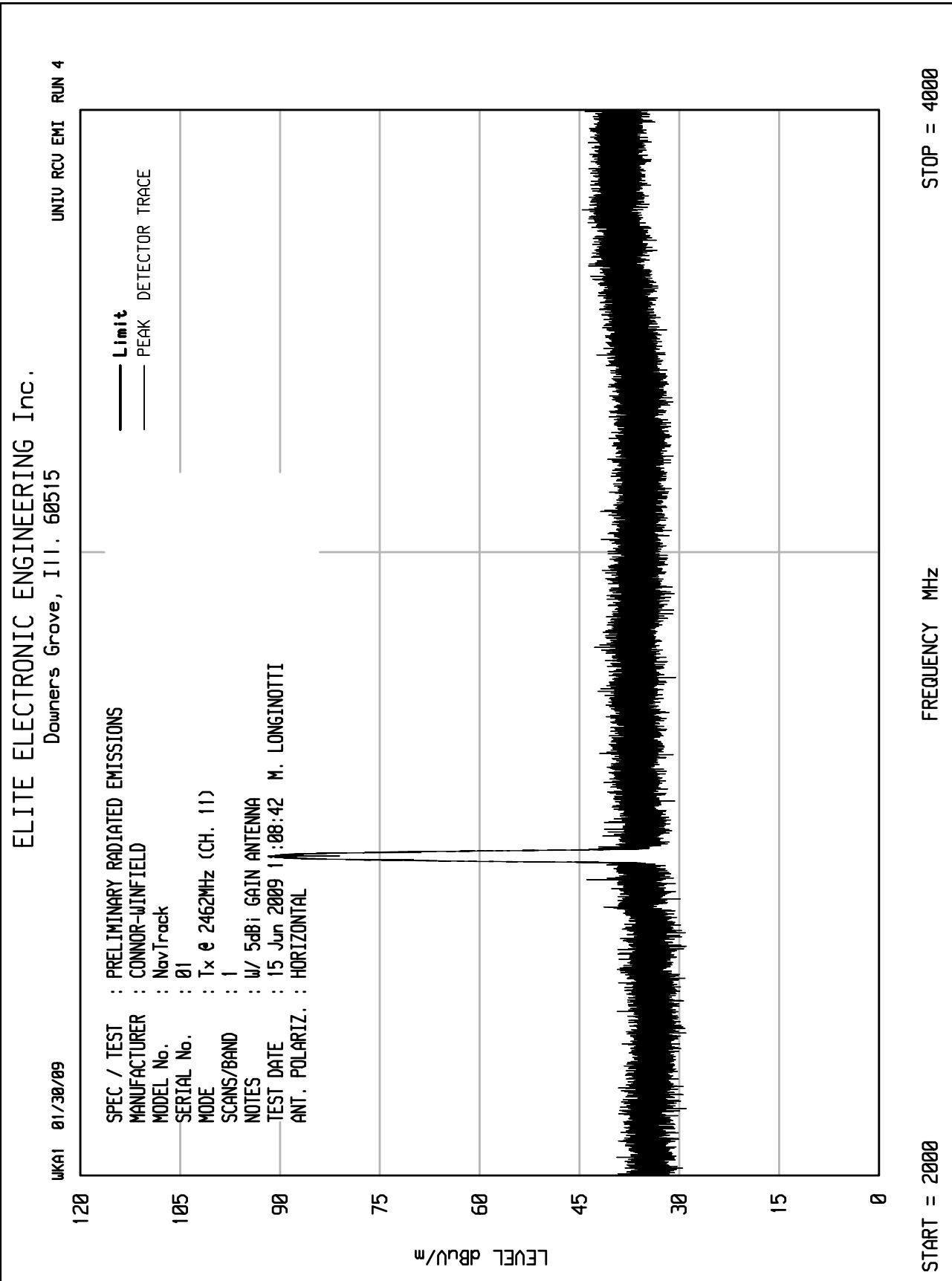
Downers Grove, Ill. 60515

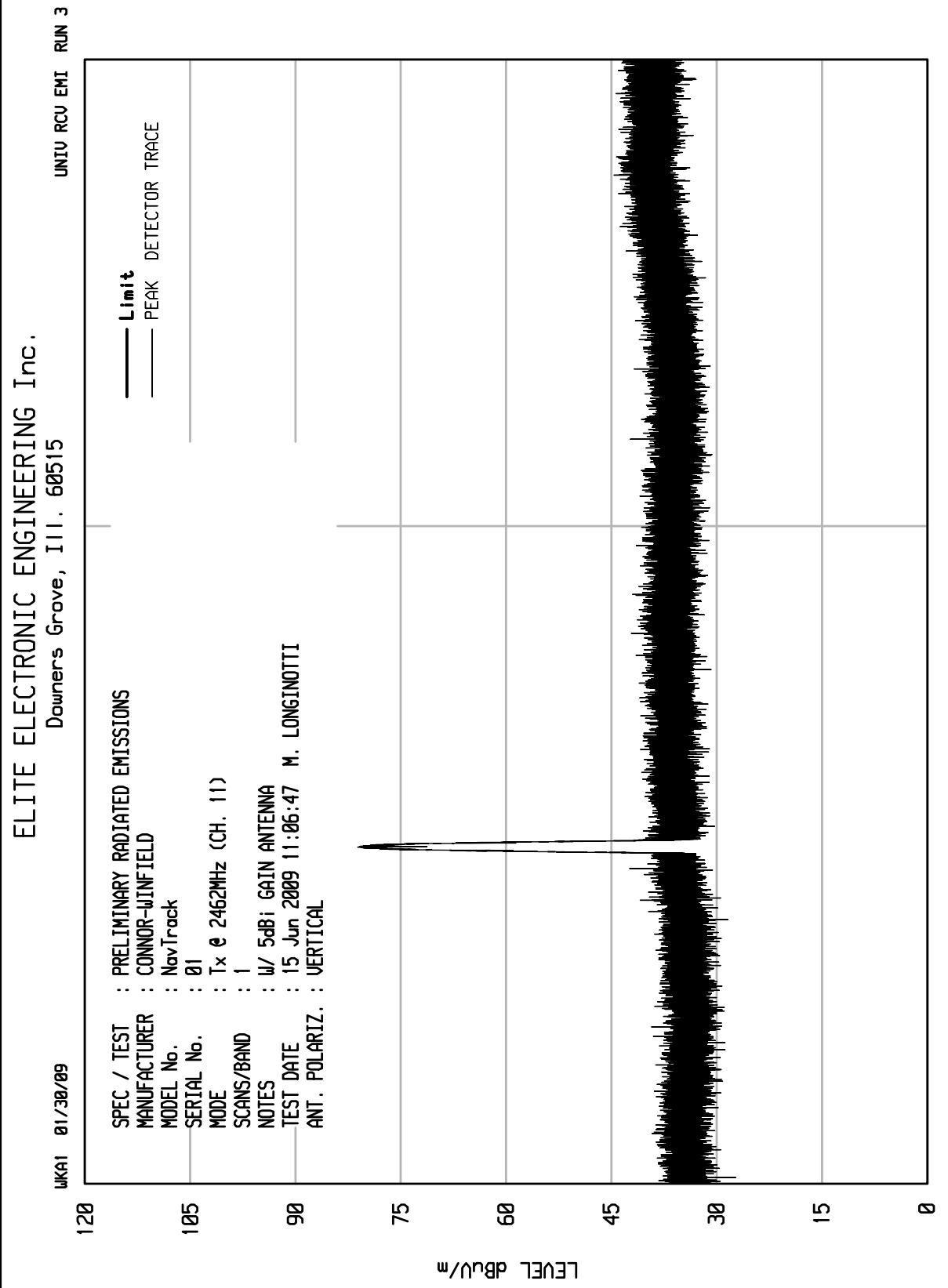
UNI U RCU EMI RUN 19

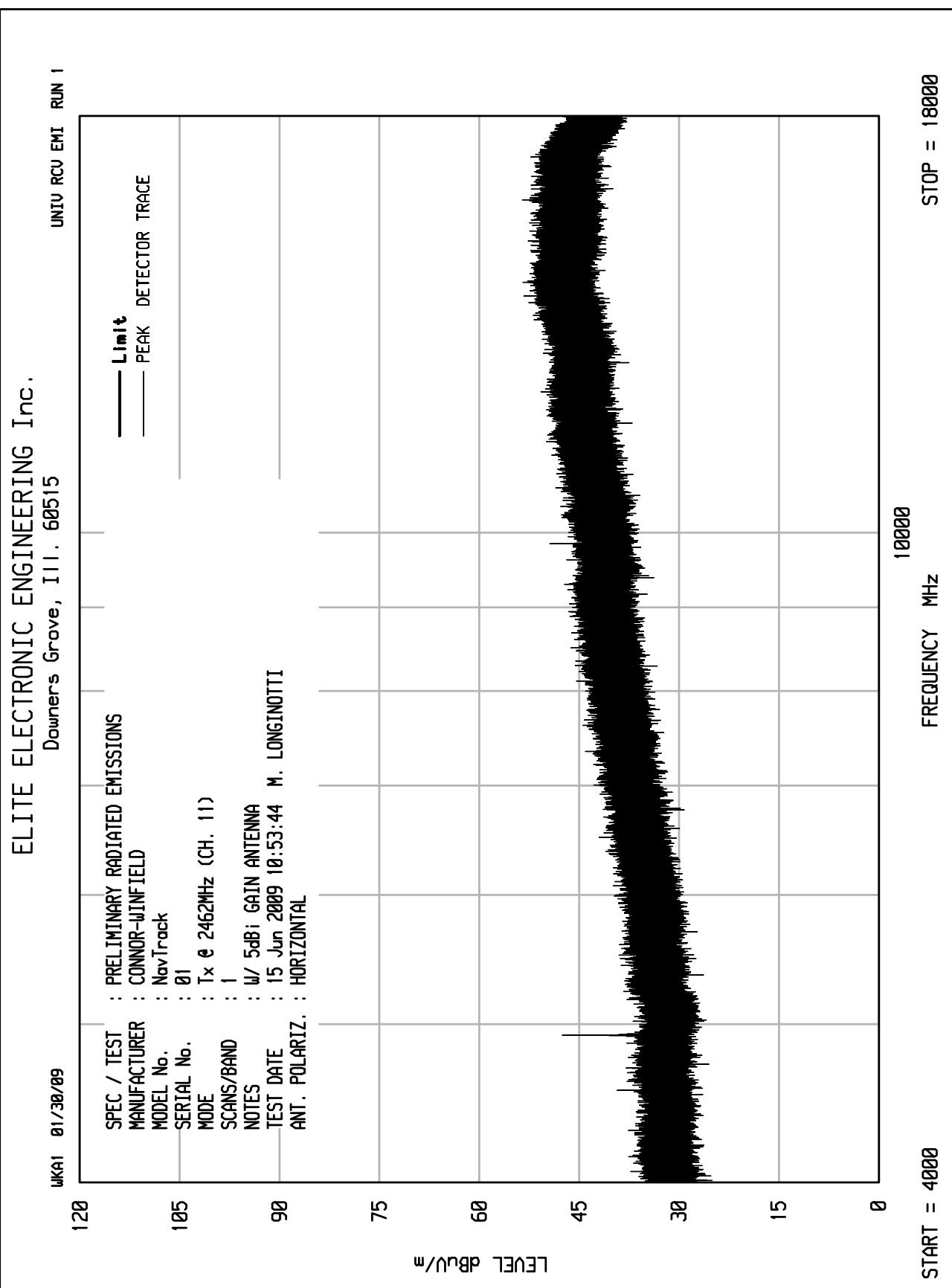
WKA1 01/30/09

SPEC / TEST	: PRELIMINARY RADIATED EMISSIONS
MANUFACTURER	: CONNOR-JINFIELD
MODEL No.	: NavTrack
SERIAL No.	: 01
MODE	: Tx @ 2462MHz (CH. 11)
SCANS/BAND	: 1
NOTES	: w/ 5dBi GAIN ANTENNA
TEST DATE	: 15 Jun 2009 14:55:18
ANT. POLARIZ.	: M. LONGINOTTI VERTICAL





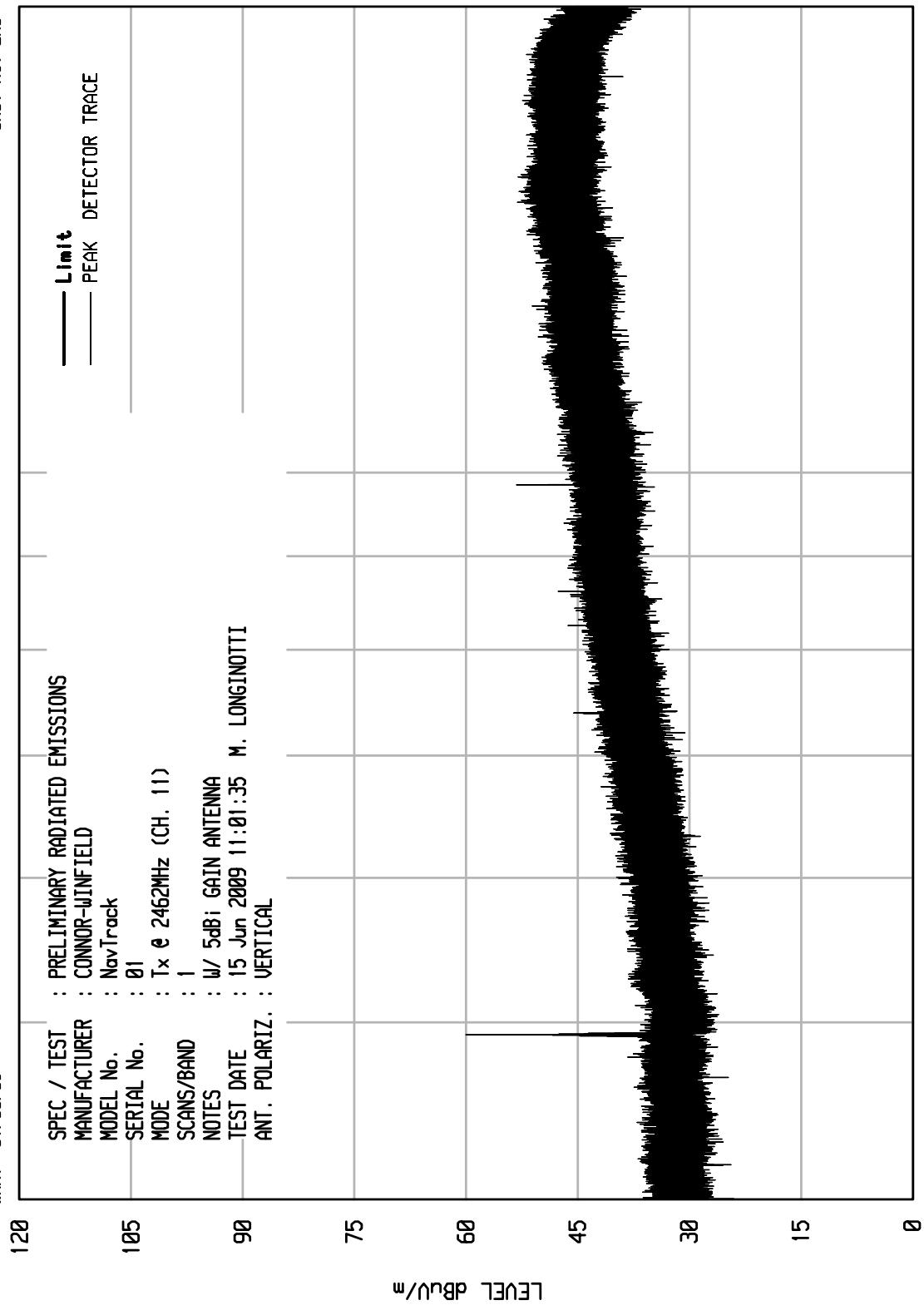


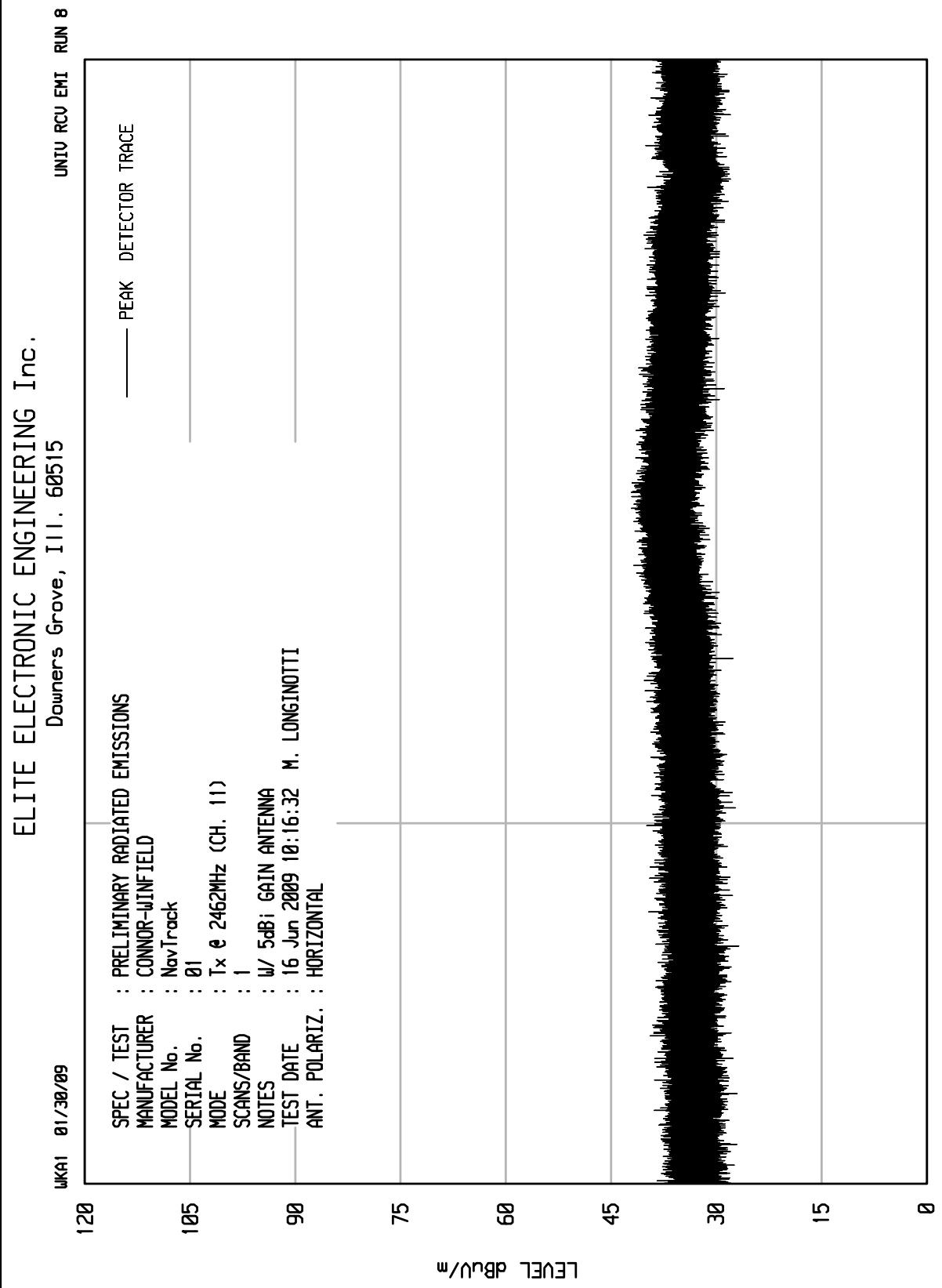


ELITE ELECTRONIC ENGINEERING Inc.  
 Downers Grove, Ill. 60515

UNIV RCU EMI RUN 2

WKAI 01/30/09	SPEC / TEST	: PRELIMINARY RADIATED EMISSIONS
105	MANUFACTURER	: CONNOR-JINFIELD
	MODEL No.	: NavTrack
105	SERIAL No.	: 01
	MODE	: Tx @ 2462MHz (CH. 11)
	SCANS/BAND	: 1
	NOTES	: w/ 5dBi GAIN ANTENNA
90	TEST DATE	: 15 Jun 2009 11:01:35 M. LONGINOTTI
	ANT. POLARIZ.	: VERTICAL





ELITE ELECTRONIC ENGINEERING Inc.  
 Downers Grove, Ill. 60515

UNIV RCU EMI RUN 7

WKAI 01/30/09

105	SPEC / TEST	: PRELIMINARY RADIATED EMISSIONS
	MANUFACTURER	: CONNOR-JUNIFIELD
	MODEL No.	: NavTrack
	SERIAL No.	: 01
	MODE	: Tx & 2462MHz (CH. 11)
	SCANS/BAND	: 1
	NOTES	: W/ 5dBi GAIN ANTENNA
90	TEST DATE	: 16 Jun 2009 10:13:50 M. LONGINOTTI
	ANT. POLARIZ.	: VERTICAL

120

105

90

75

60

45

30

15

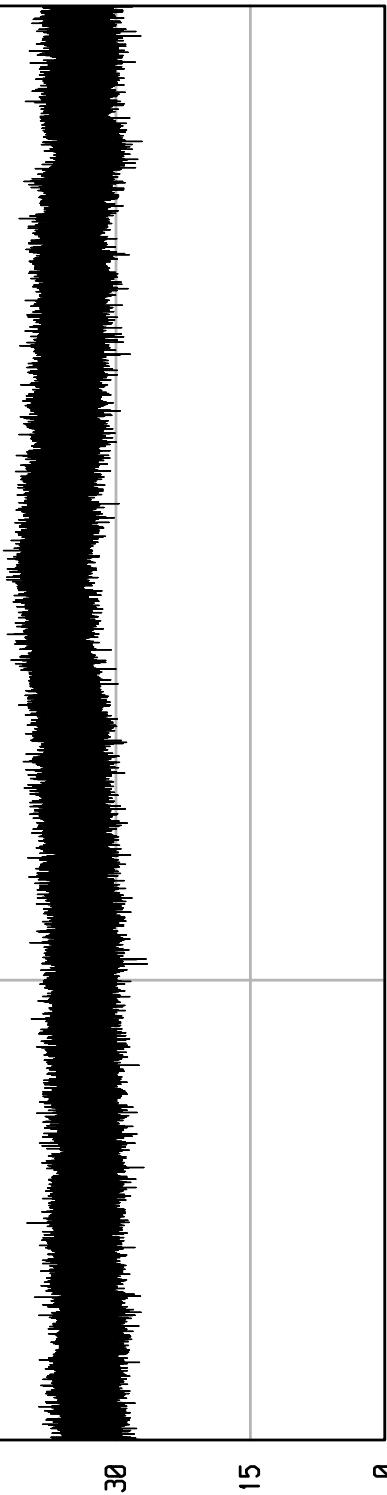
0

LEVEL dBUL/m

START = 18000

FREQUENCY MHz

STOP = 25000





Manufacturer : Conner-Winfield Corporation  
Test Item : NavTrack  
Model No. : CW85 V4  
Serial No. : 01  
Mode : Transmit at 2413MHz (Channel 1), 5dBi gain antenna  
Test Specification : FCC 15.247  
Date : June 15 and 16, 2009  
Test Distance : 3 meters  
Note : Peak readings

Freq (MHz)	Ant Pol	Meter Reading (dBuV)	Amb	CBL FAC (dB)	Ant Fac (dB)	Pre Amp (dB)	Total dBuV/m at 3 m	Total uV/m at 3m	Limit uV/m at 3m	Margin (dB)
4824.0	H	54.6		5.7	34.5	-37.3	57.6	755.5	5000.0	-16.4
4824.0	V	57.7		5.7	34.5	-37.3	60.7	1079.6	5000.0	-13.3
12060.0	H	47.0	Amb	9.8	41.4	-35.1	63.1	1433.2	5000.0	-10.9
12060.0	V	47.4	Amb	9.8	41.4	-35.1	63.5	1500.8	5000.0	-10.5
14472.0	H	47.1	Amb	10.9	43.8	-34.4	67.4	2353.2	5000.0	-6.5
14472.0	V	47.9	Amb	10.9	43.8	-34.4	68.2	2580.3	5000.0	-5.7
19296.0	H	36.8	Amb	2.2	40.4	-28.9	50.5	333.3	5000.0	-23.5
19296.0	V	35.5	Amb	2.2	40.4	-28.9	49.2	287.0	5000.0	-24.8

Amb = Ambient

Total (dBuV/m) = Meter Reading + CBL FAC + Ant Fac + Pre Amp

Checked By:

MARK E. LONGINOTTI

Mark E. Longinotti



Manufacturer : Conner-Winfield Corporation  
Test Item : NavTrack  
Model No. : CW85 V4  
Serial No. : 01  
Mode : Transmit at 2413MHz (Channel 1), 5dBi gain antenna  
Test Specification : FCC 15.247  
Date : June 15 and 16, 2009  
Test Distance : 3 meters  
Note : Average readings

Freq (MHz)	Ant Pol	Meter Reading (dBuV)	Amb	CBL FAC (dB)	Ant Fac (dB)	Pre Amp (dB)	Duty Cycle (dB)	Total dBuV/m at 3 m	Total uV/m at 3m	Limit uV/m at 3m	Margin (dB)
4824.0	H	51.1		5.7	34.5	-37.3	-45.3	8.8	2.7	500.0	-45.2
4824.0	V	55.1		5.7	34.5	-37.3	-45.3	12.8	4.3	500.0	-41.2
12060.0	H	33.6	Amb	9.8	41.4	-35.1	-45.3	4.4	1.7	500.0	-49.6
12060.0	V	33.5	Amb	9.8	41.4	-35.1	-45.3	4.3	1.6	500.0	-49.7
14472.0	H	33.8	Amb	10.9	43.8	-34.4	-45.3	8.8	2.8	500.0	-45.1
14472.0	V	34.1	Amb	10.9	43.8	-34.4	-45.3	9.1	2.9	500.0	-44.8
19296.0	H	24.4	Amb	2.2	40.4	-28.9	-45.3	-7.2	0.4	500.0	-61.2
19296.0	V	24.9	Amb	2.2	40.4	-28.9	-45.3	-6.7	0.5	500.0	-60.7

Amb = Ambient

Total (dBuV/m) = Meter Reading + CBL FAC + Ant Fac + Pre Amp + Duty Cycle

Checked By: MARK E. LONGINOTTI  
Mark E. Longinotti



Manufacturer : Conner-Winfield Corporation  
Test Item : NavTrack  
Model No. : CW85 V4  
Serial No. : 01  
Mode : Transmit at 2438MHz (Channel 6), 5dBi gain antenna  
Test Specification : FCC 15.247  
Date : June 15 and 16, 2009  
Test Distance : 3 meters  
Note : Peak readings

Freq (MHz)	Ant Pol	Meter Reading (dBuV)	Amb	CBL FAC (dB)	Ant Fac (dB)	Pre Amp (dB)	Total dBuV/m at 3 m	Total uV/m at 3m	Limit uV/m at 3m	Margin (dB)
4874.0	H	56.5		5.7	34.5	-37.3	59.5	943.2	5000.0	-14.5
4874.0	V	56.9		5.7	34.5	-37.3	59.9	987.6	5000.0	-14.1
7311.0	H	50.4		7.7	38.1	-35.9	60.2	1026.8	5000.0	-13.7
7311.0	V	50.9		7.7	38.1	-35.9	60.7	1087.6	5000.0	-13.2
12185.0	H	47.5	Amb	9.9	41.4	-35.0	63.7	1525.6	5000.0	-10.3
12185.0	V	46.5	Amb	9.9	41.4	-35.0	62.7	1359.7	5000.0	-11.3
19496.0	H	35.4	Amb	2.2	40.4	-28.7	49.3	292.5	5000.0	-24.7
19496.0	V	36.4	Amb	2.2	40.4	-28.7	50.3	328.2	5000.0	-23.7

Amb = Ambient

Total (dBuV/m) = Meter Reading + CBL FAC + Ant Fac + Pre Amp

Checked By: MARK E. LONGINOTTI  
Mark E. Longinotti



Manufacturer : Conner-Winfield Corporation  
Test Item : NavTrack  
Model No. : CW85 V4  
Serial No. : 01  
Mode : Transmit at 2438MHz (Channel 6), 5dBi gain antenna  
Test Specification : FCC 15.247  
Date : June 15 and 16, 2009  
Test Distance : 3 meters  
Note : Average readings

Freq (MHz)	Ant Pol	Meter Reading (dBuV)	Amb	CBL FAC (dB)	Ant Fac (dB)	Pre Amp (dB)	Duty Cycle (dB)	Total dBuV/m at 3 m	Total uV/m at 3m	Limit uV/m at 3m	Margin (dB)
4824.0	H	53.0		5.7	34.5	-37.3	-45.3	10.7	3.4	500.0	-43.3
4824.0	V	54.7		5.7	34.5	-37.3	-45.3	12.4	4.2	500.0	-41.6
7236.0	H	41.3		7.7	38.1	-35.9	-45.3	5.8	2.0	500.0	-48.1
7236.0	V	42.0		7.7	38.1	-35.9	-45.3	6.5	2.1	500.0	-47.4
12060.0	H	34.0	Amb	9.9	41.4	-35.0	-45.3	4.9	1.8	500.0	-49.1
12060.0	V	34.2	Amb	9.9	41.4	-35.0	-45.3	5.1	1.8	500.0	-48.9
19296.0	H	24.7	Amb	2.2	40.4	-28.7	-45.3	-6.7	0.5	500.0	-60.7
19296.0	V	27.5	Amb	2.2	40.4	-28.7	-45.3	-3.9	0.6	500.0	-57.9

Amb = Ambient

Total (dBuV/m) = Meter Reading + CBL FAC + Ant Fac + Pre Amp + Duty Cycle

Checked By: MARK E. LONGINOTTI  
Mark E. Longinotti



Manufacturer : Conner-Winfield Corporation  
Test Item : NavTrack  
Model No. : CW85 V4  
Serial No. : 01  
Mode : Transmit at 2462MHz (Channel 11), 5dBi gain antenna  
Test Specification : FCC 15.247  
Date : June 15 and 16, 2009  
Test Distance : 3 meters  
Note : Peak readings

Freq (MHz)	Ant Pol	Meter Reading (dBuV)	Amb	CBL FAC (dB)	Ant Fac (dB)	Pre Amp (dB)	Total dBuV/m at 3 m	Total uV/m at 3m	Limit uV/m at 3m	Margin (dB)
4924.0	H	56.4		5.8	34.5	-37.3	59.4	935.2	5000.0	-14.6
4924.0	V	59.6		5.8	34.5	-37.3	62.6	1351.7	5000.0	-11.4
7386.0	H	46.4		7.7	38.1	-35.9	56.3	651.6	5000.0	-17.7
7386.0	V	49.1		7.7	38.1	-35.9	59.0	889.1	5000.0	-15.0
12310.0	H	45.2	Amb	9.9	41.4	-35.0	61.4	1176.4	5000.0	-12.6
12310.0	V	45.2	Amb	9.9	41.4	-35.0	61.4	1176.4	5000.0	-12.6
19696.0	H	36.5	Amb	2.2	40.4	-28.6	50.5	336.6	5000.0	-23.4
19696.0	V	35.1	Amb	2.2	40.4	-28.6	49.1	286.5	5000.0	-24.8
22158.0	H	38.2	Amb	2.2	40.6	-27.5	53.4	470.1	5000.0	-20.5
22158.0	V	37.1	Amb	2.2	40.6	-27.5	52.3	414.1	5000.0	-21.6

Amb = Ambient

Total (dBuV/m) = Meter Reading + CBL FAC + Ant Fac + Pre Amp

Checked By: MARK E. LONGINOTTI  
Mark E. Longinotti



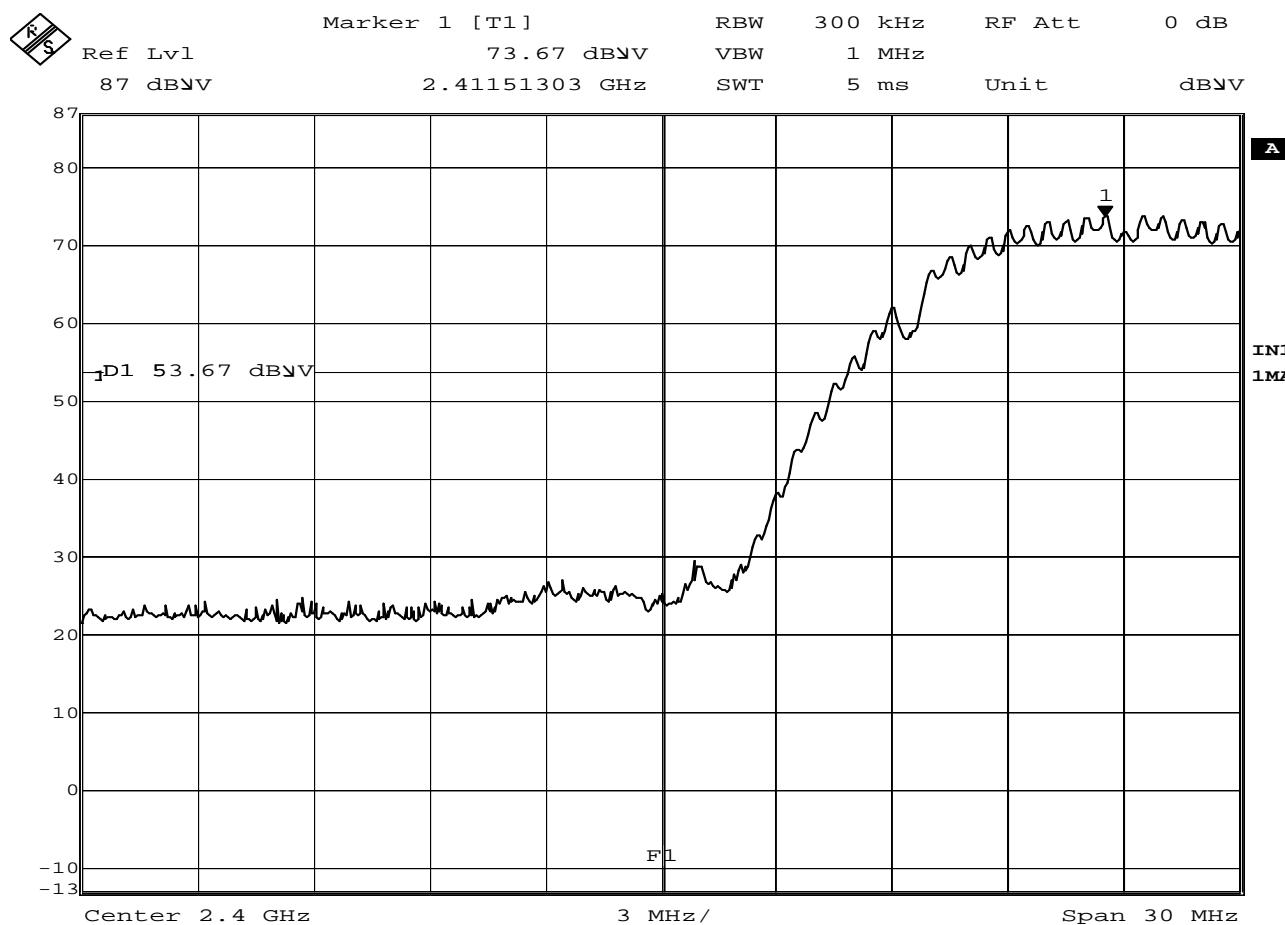
Manufacturer : Conner-Winfield Corporation  
Test Item : NavTrack  
Model No. : CW85 V4  
Serial No. : 01  
Mode : Transmit at 2462MHz (Channel 11), 5dBi gain antenna  
Test Specification : FCC 15.247  
Date : June 15 and 16, 2009  
Test Distance : 3 meters  
Note : Average readings

Freq (MHz)	Ant Pol	Meter Reading (dBuV)	Amb	CBL FAC (dB)	Ant Fac (dB)	Pre Amp (dB)	Duty Cycle (dB)	Total dBuV/m at 3 m	Total uV/m at 3m	Limit uV/m at 3m	Margin (dB)
4924.0	H	53.9		5.8	34.5	-37.3	-45.3	11.6	3.8	500.0	-42.4
4924.0	V	57.4		5.8	34.5	-37.3	-45.3	15.1	5.7	500.0	-38.9
7386.0	H	38.6		7.7	38.1	-35.9	-45.3	3.2	1.4	500.0	-50.8
7386.0	V	39.3		7.7	38.1	-35.9	-45.3	3.9	1.6	500.0	-50.1
12310.0	H	33.7	Amb	9.9	41.4	-35.0	-45.3	4.6	1.7	500.0	-49.4
12310.0	V	33.9	Amb	9.9	41.4	-35.0	-45.3	4.8	1.7	500.0	-49.2
19696.0	H	26.2	Amb	2.2	40.4	-28.6	-45.3	-5.1	0.6	500.0	-59.0
19696.0	V	26.7	Amb	2.2	40.4	-28.6	-45.3	-4.6	0.6	500.0	-58.5
22158.0	H	25.0	Amb	2.2	40.6	-27.5	-45.3	-5.1	0.6	500.0	-59.0
22158.0	V	24.7	Amb	2.2	40.6	-27.5	-45.3	-5.4	0.5	500.0	-59.3

Amb = Ambient

Total (dBuV/m) = Meter Reading + CBL FAC + Ant Fac + Pre Amp + Duty Cycle

Checked By: MARK E. LONGINOTTI  
Mark E. Longinotti



Date: 16.JUN.2009 20:56:43

#### FCC 15.247 Spurious RF Conducted Emissions

MANUFACTURER	: Connor-Winfield Corporation
PART NUMBER	: NavTrack
SERIAL NUMBER	: 01
TEST MODE	: Transmit @ 2413MHz (Ch. 1)
TEST PARAMETER	: Display line F1 represents the band edge : (2400MHz). At the band edge, the readings must : be 20dB down from the fundamental using a : resolution bandwidth that is at least 1% of the : span (1% of 30MHz is 300kHz). Display line D1 : represents the 20dB down level.
NOTES	: Measurements taken at the antenna port
EQUIPMENT USED	: RBB0,T2D7, T2DI



Manufacturer : Conner-Winfield Corporation  
Test Item : NavTrack  
Model No. : CW85 V4  
Serial No. : 01  
Mode : Transmit at 2462MHz (Channel 11), 5dBi gain antenna  
Test Specification : FCC 15.247, radiated emissions at band edge (2483.5MHz)  
Date : June 15, 2009  
Test Distance : 3 meters  
Note : Peak readings

Freq (MHz)	Ant Pol	Meter Reading (dBuV)	Amb	CBL FAC (dB)	Ant Fac (dB)	Pre Amp (dB)	Total dBuV/m at 3 m	Total uV/m at 3m	Limit uV/m at 3m	Margin (dB)
2483.5	H	19.6		3.8	31.4	0.0	54.8	552.0	5000.0	-19.1
2483.5	V	14.8		3.8	31.4	0.0	50.0	317.7	5000.0	-23.9

Amb = Ambient

Total (dBuV/m) = Meter Reading + CBL FAC + Ant Fac + Pre Amp

Checked By: MARK E. LONGINOTTI  
Mark E. Longinotti



Manufacturer : Conner-Winfield Corporation  
Test Item : NavTrack  
Model No. : CW85 V4  
Serial No. : 01  
Mode : Transmit at 2462MHz (Channel 11), 5dBi gain antenna  
Test Specification : FCC 15.247, radiated emissions at band edge (2483.5MHz)  
Date : June 15, 2009  
Test Distance : 3 meters  
Note : Average readings

Freq (MHz)	Ant Pol	Meter Reading (dBuV)	Amb	CBL FAC (dB)	Ant Fac (dB)	Pre Amp (dB)	Duty Cycle (dB)	Total dBuV/m at 3 m	Total uV/m at 3m	Limit uV/m at 3m	Margin (dB)
2483.5	H	12.4		3.8	31.4	0.0	-45.3	2.3	1.3	500.0	-51.7
2483.5	V	8.2		3.8	31.4	0.0	-45.3	-1.9	0.8	500.0	-53.2

Amb = Ambient

Total (dBuV/m) = Meter Reading + CBL FAC + Ant Fac + Pre Amp + Duty Cycle

Checked By: MARK E. LONGINOTTI  
Mark E. Longinotti