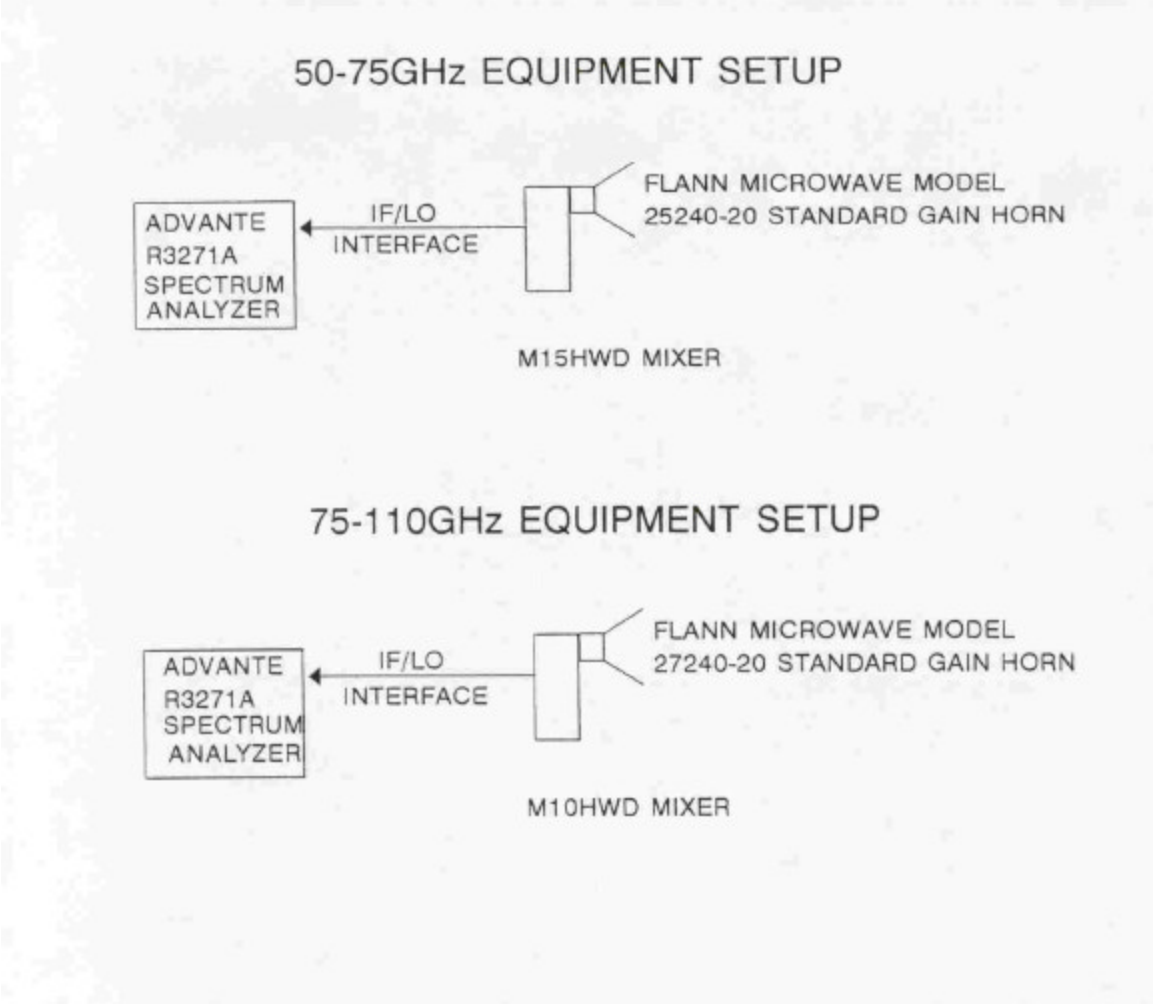


FIGURE 6.1.3-1 (CONT.)

6.1.3.1 Radiated 15.209((a)/101.111)

Radiated measurements were performed starting at 30MHz and extended out to 100GHz to include the requirements for covering 24GHz transmitter harmonics and spurious emissions. Quasi-peak detection was used from 30MHz to 1GHz. From 1GHz to 40GHz, both peak and average measurements were performed. Above 40GHz the peak measurements at 1MHz bandwidth were measured. The harmonics were measured at the Mid TX frequency. A scan at Mid frequency was performed to 100GHz for spurious content. Both vertical and horizontal polarizations are included in the data. Photo 6.1.3.1-1 presents the test site with the unit in place inside the enclosure.

Table 6.1.3.1-1 is a tabulated list of the signals detected including the transmitter frequency and harmonics.

RESULTS: The system does not have signals that appear above the requirement of Part 15 or Part 101 as tested in this report. In areas where the sensitivity was lacking, several techniques were used such as moving in closer or narrowing the bandwidths. The sensitivity was increased in the mixers range by using a 500MHz low pass filter to separate the IF/LO frequencies to the mixer. A second analyzer was used to observe the 431MHz IF.

Rubicom Systems, Inc. is confident that the methods used show the unit compliant.

The MASK requirement of 101.111(2)(ii) is shown in Data Sheets 6.1.3.1-1 through 6.1.3.1-6. The maximum attenuation requirement of 56dB at the 250% points is applicable.

Outside the 250% bandwidth the limit was established at 33dB attenuation required below the transmitter. The measurements were made using the radiated technique. The transmitter output for this application is approximately 50dB below the allowed 55dBW EIRP.

Plotter data for the quasi-peak scans over the 30MHz-1GHz range are presented on Data Sheets 6.1.3.1-7 through 6.1.3.1-12. Peak data plots from 1GHz to 100GHz are presented on Data Sheets 6.1.3-13 through 6.1.3-26.

Average data plots to 40GHz are presented on Data Sheets 6.1.3.1-27 through 6.1.3.1-52.

Ambient data for the 30MHz-1GHz range for this test effort is on file at Rubicom Systems, Inc. under JA-1742-1 should it be required.

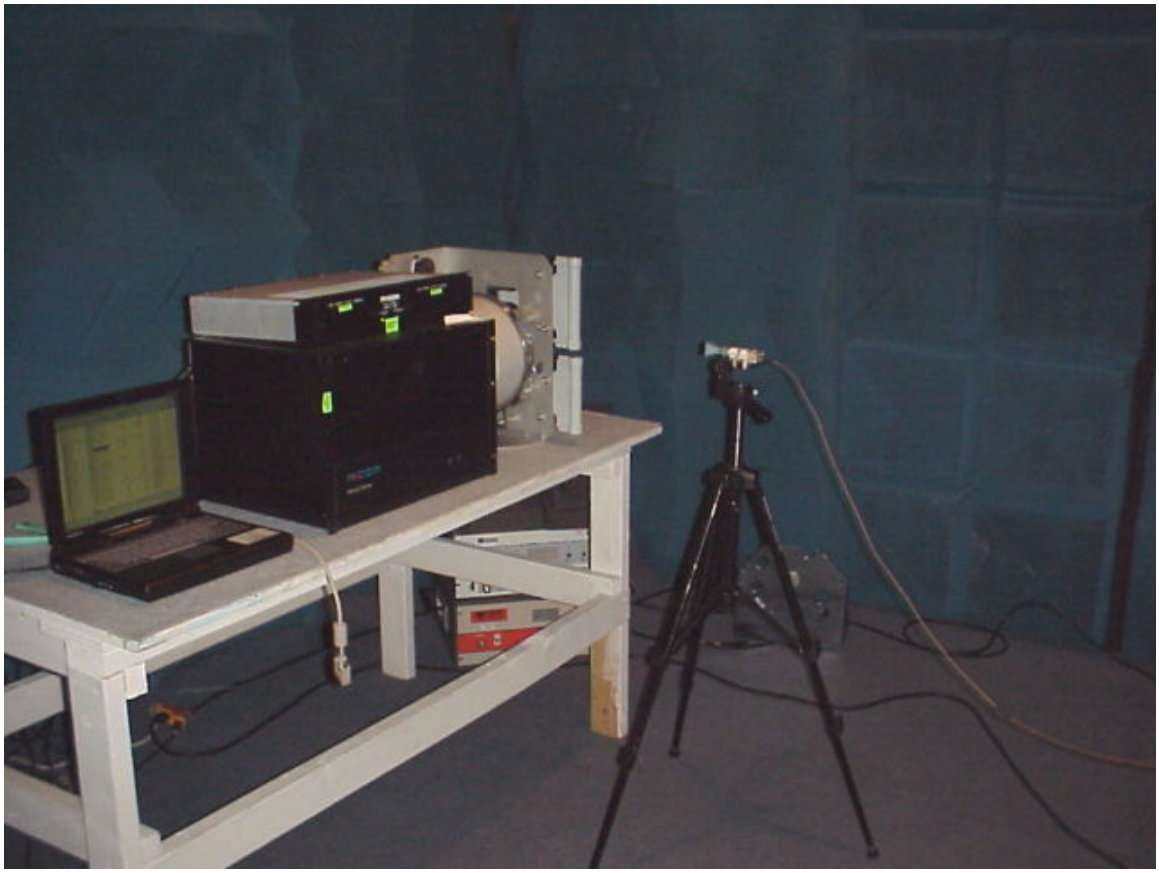


PHOTO 6.1.3.1-1

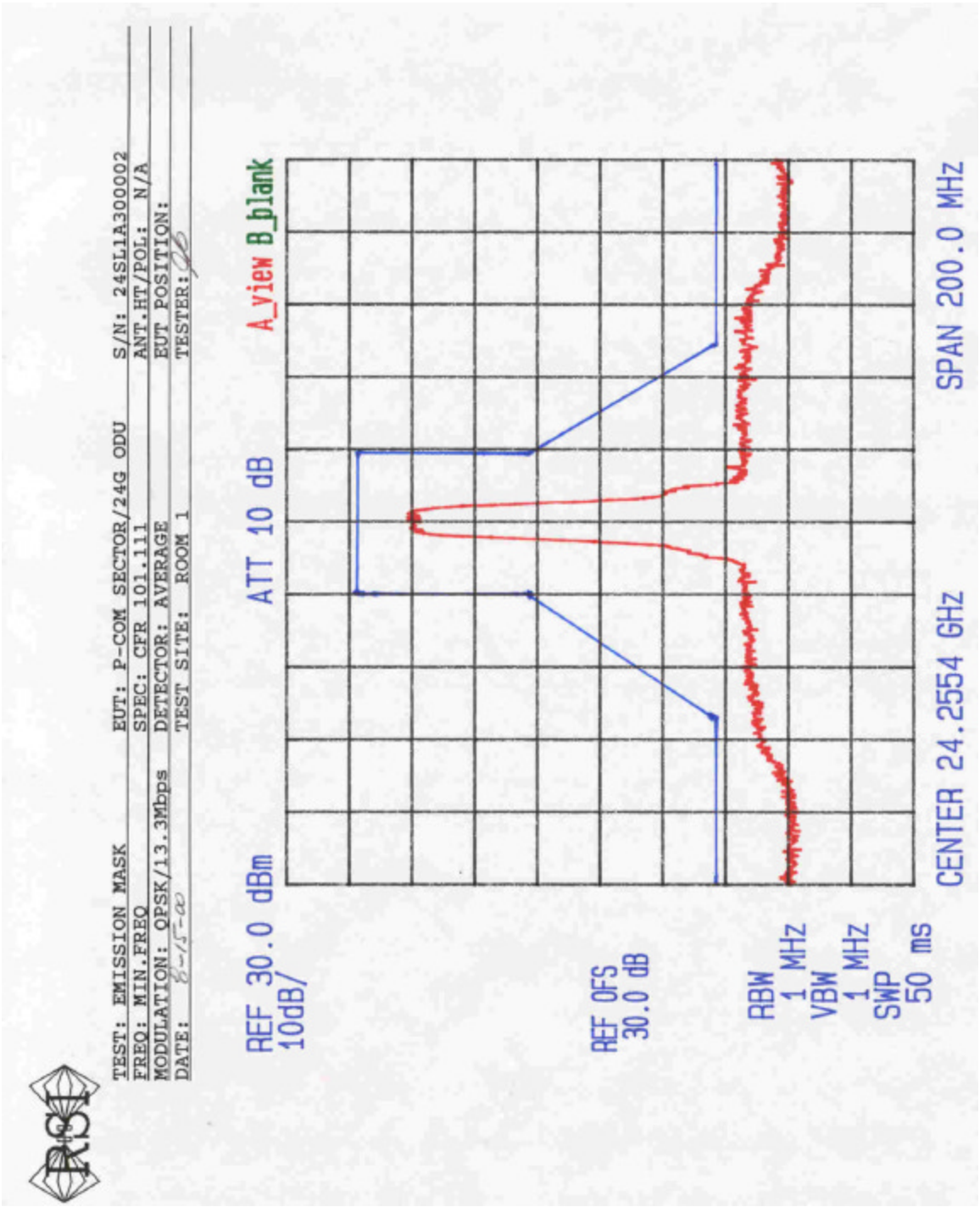
FCC RADIATED EMISSIONS TABULATED RESULTS

EUT MODEL: P-COM 24GHz SECTOR OUTDOOR UNIT

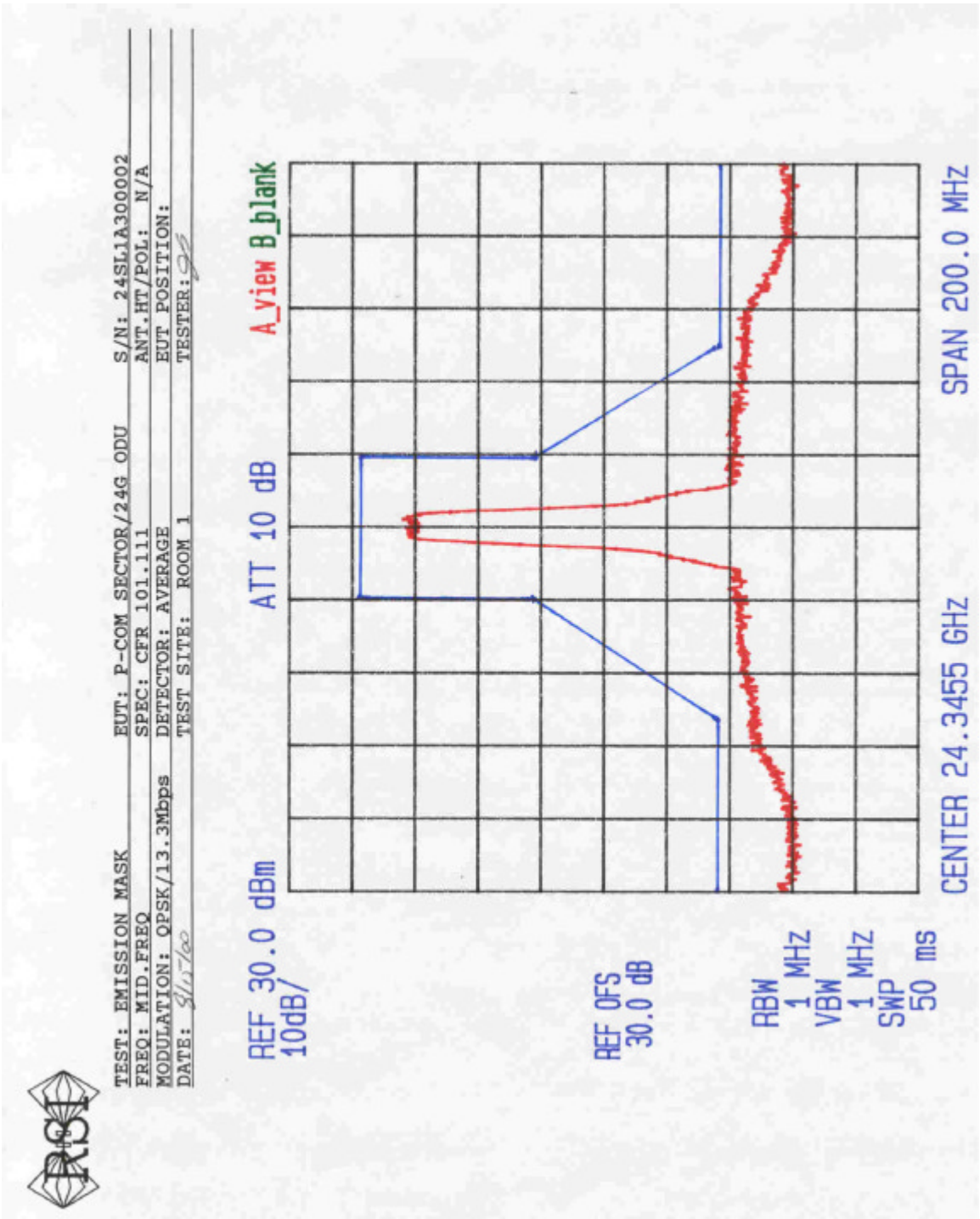
S/N: 24SL1A300045 DATE: 08/16/00 TESTER: JB

FREQUENCY	ANTENNA POL.	MEASURED (dBμV/m)	LIMIT	MARGIN (dB)
24.26MHz	H	131.7	N/A	N/A
24.26MHz	V	111.7	N/A	N/A
48.52MHz	H	<105	98/7	<+7
48.52MHz	V	<105	98.7	<+7
72.78MHz	H	<106	98.7	<+7.3
72.78MHz	V	<106	98.7	<+7.3
97.04MHz	H	<106	98.7	<+7.3
97.04MHz	V	<106	98.7	<+7.3
292MHz	H	41.5	46	-4.5
292MHz	V	42.5	46	-3.5
310MHz	H	37.0	46	-9.0
310MHz	V	37.0	46	-9.0
312MHz	H	41.0	46	-5.0
312MHz	V	40.5	46	-5.5
AVERAGE				
4.5GHz	H	39	54	-15
5.9GHz	H	47	54	-7
6.8GHz	H	49	54	-5

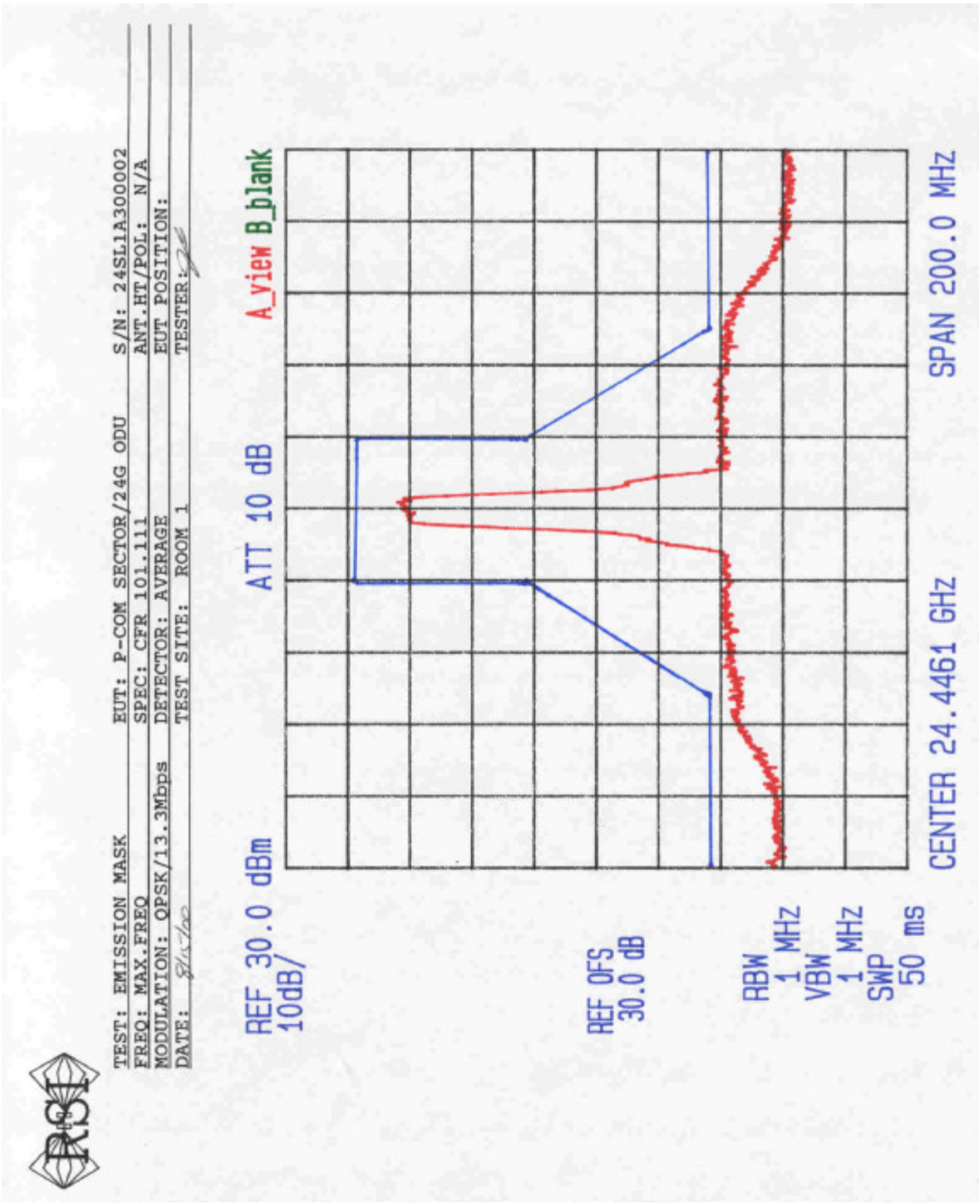
TABLE 6.1.3.1-1



DATA SHEET 6.1.3.1-1

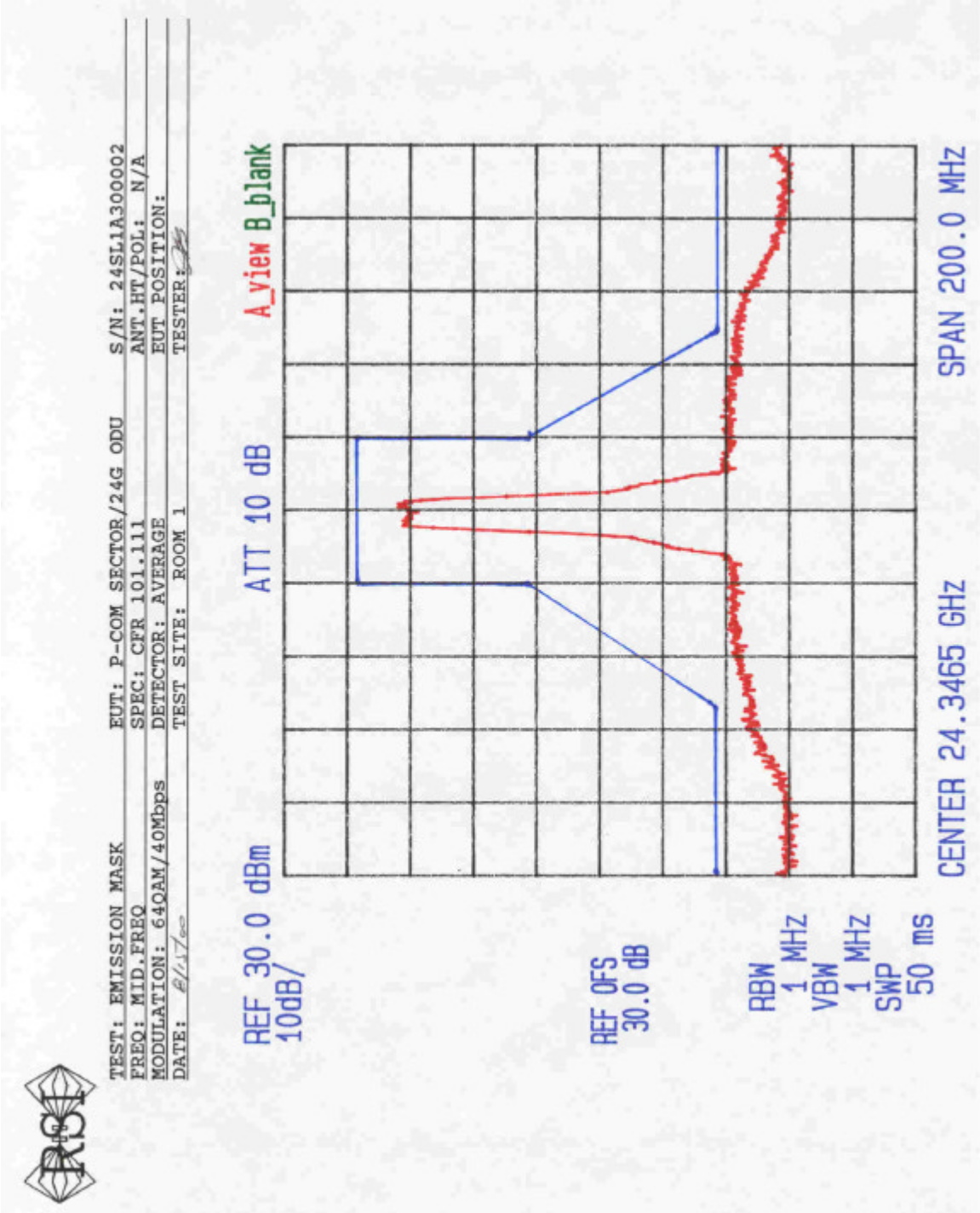


DATA SHEET 6.1.3.1-2

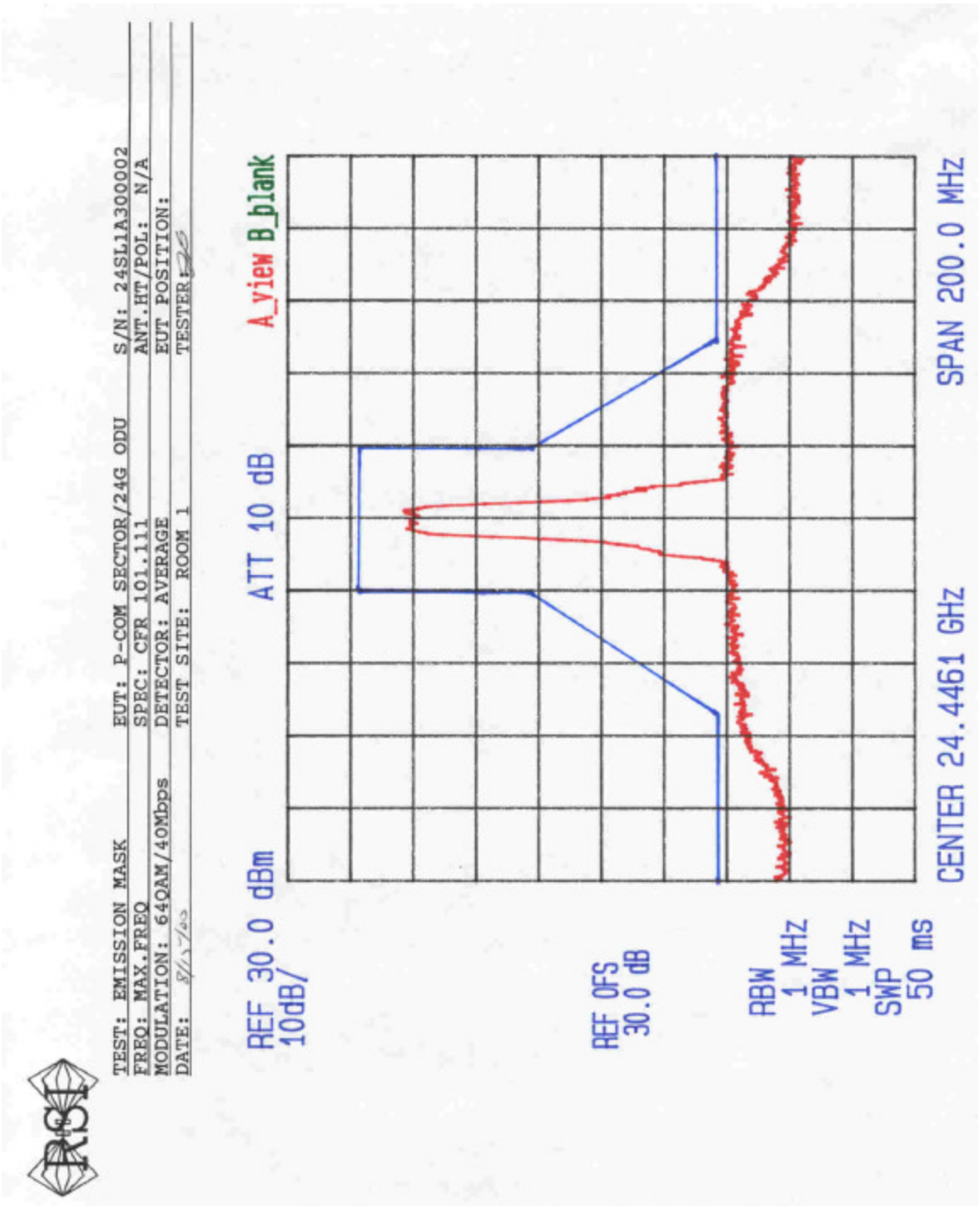


DATA SHEET 6.1.3.1-3

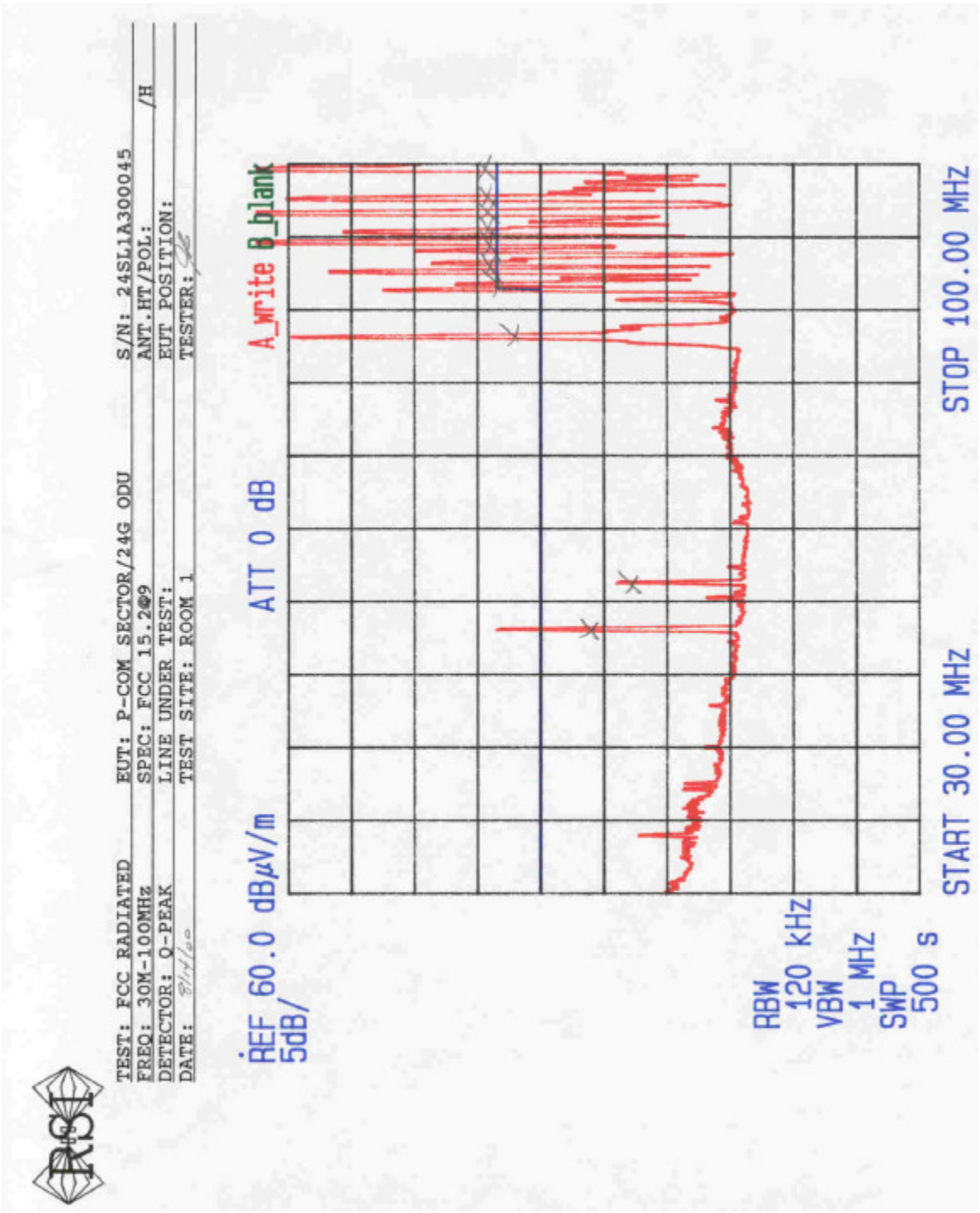
DATA SHEET 6.1.3.1-4



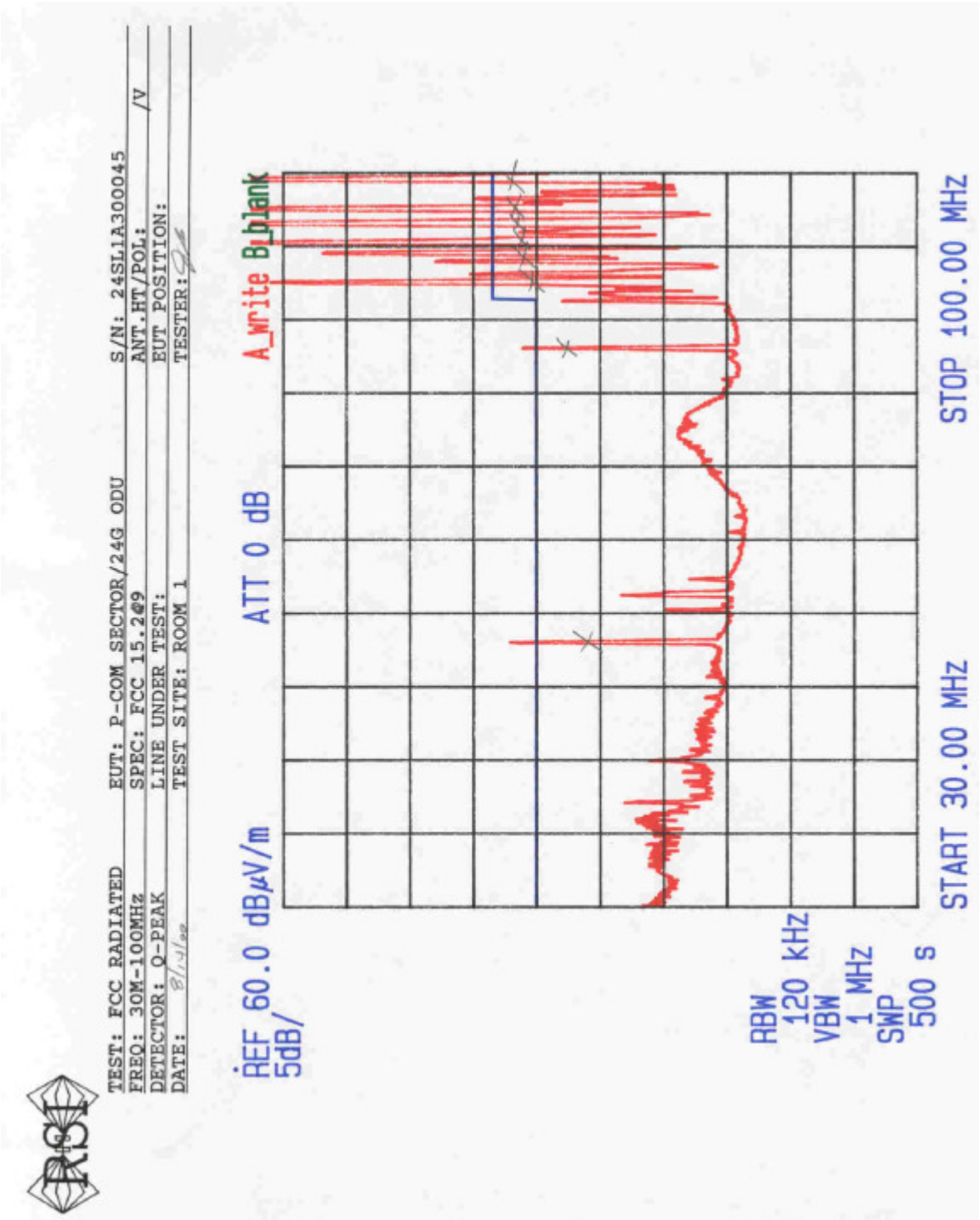
DATA SHEET 6.1.3.1-5



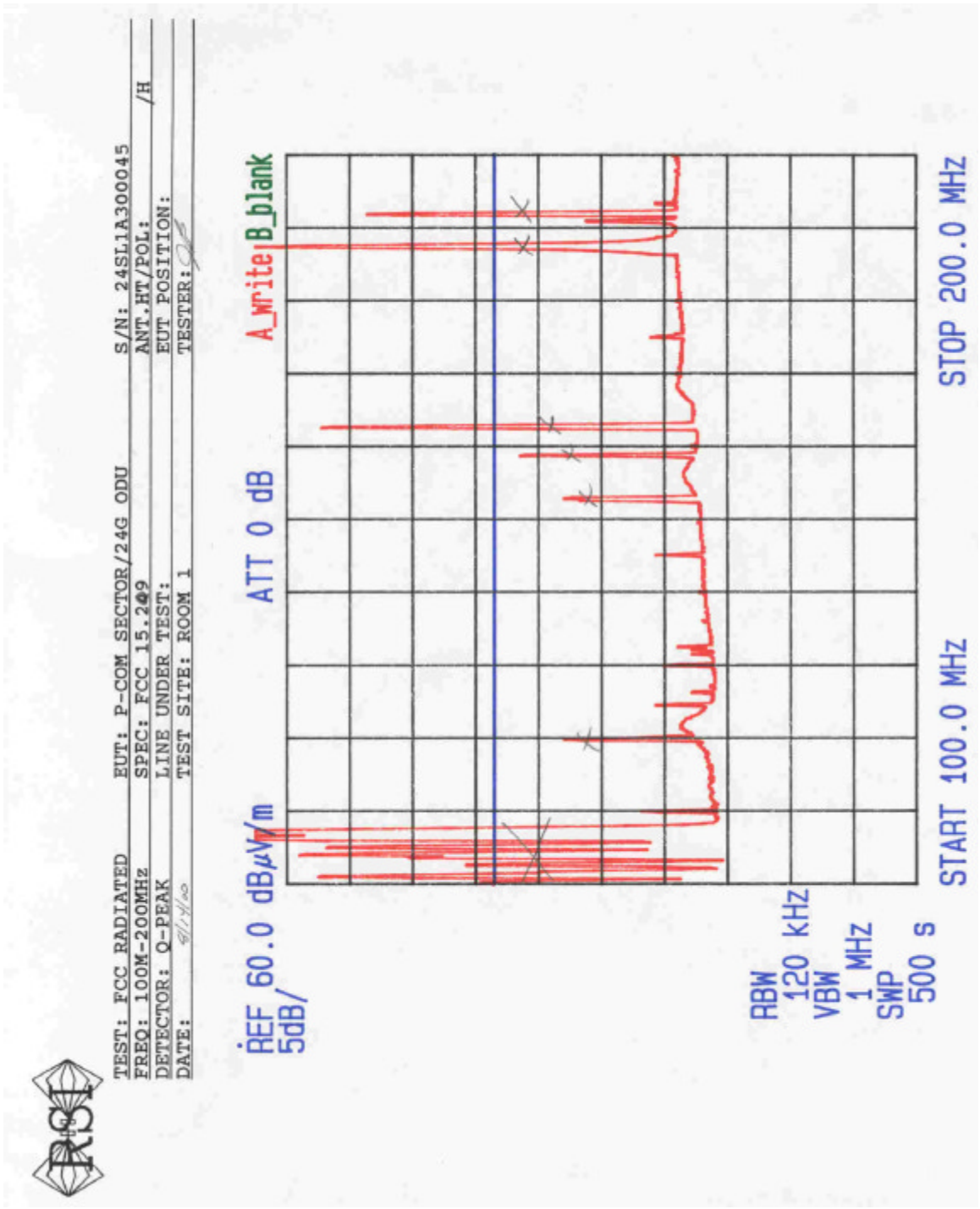
DATA SHEET 6.1.3.1-6



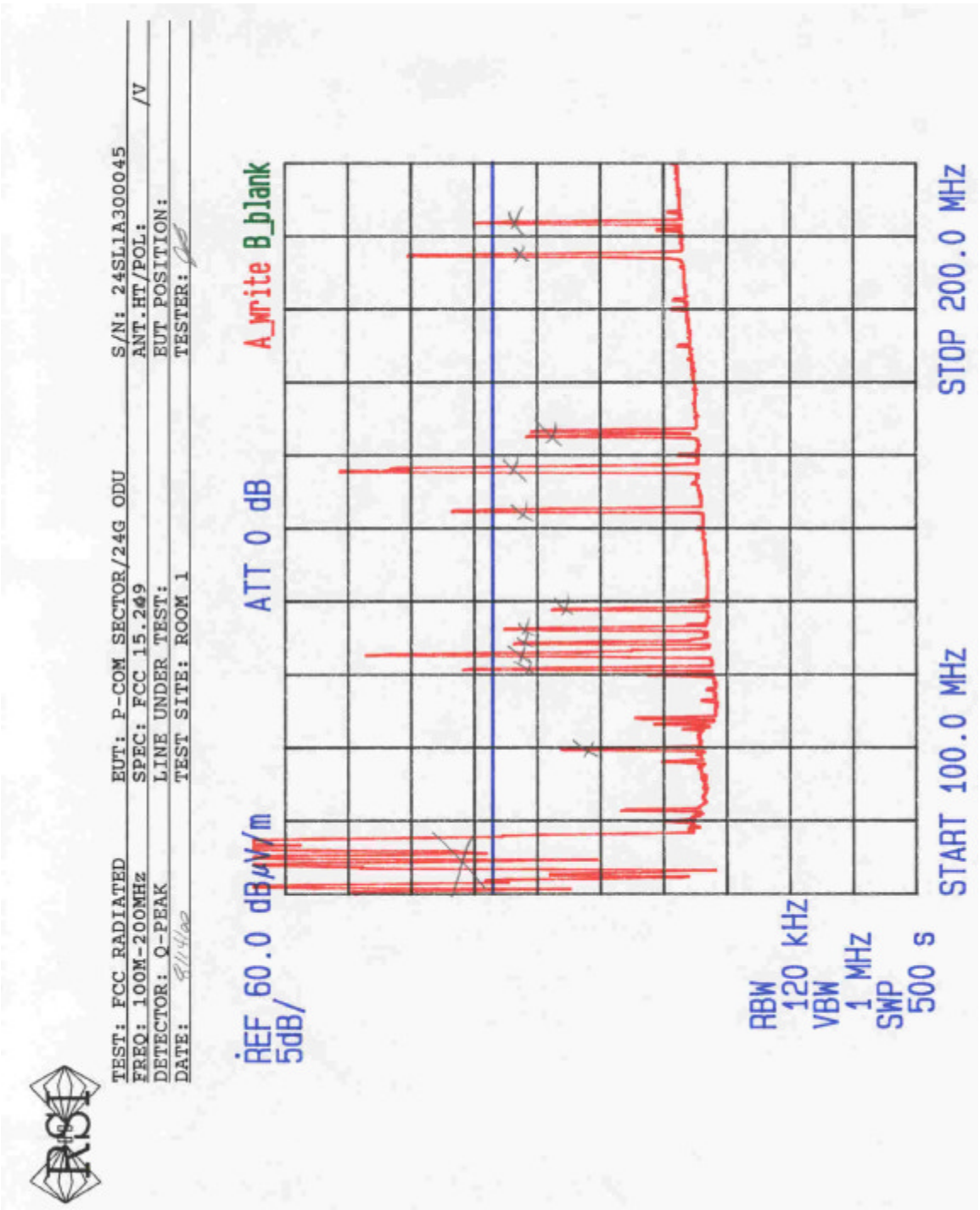
DATA SHEET 6.1.3.1-7



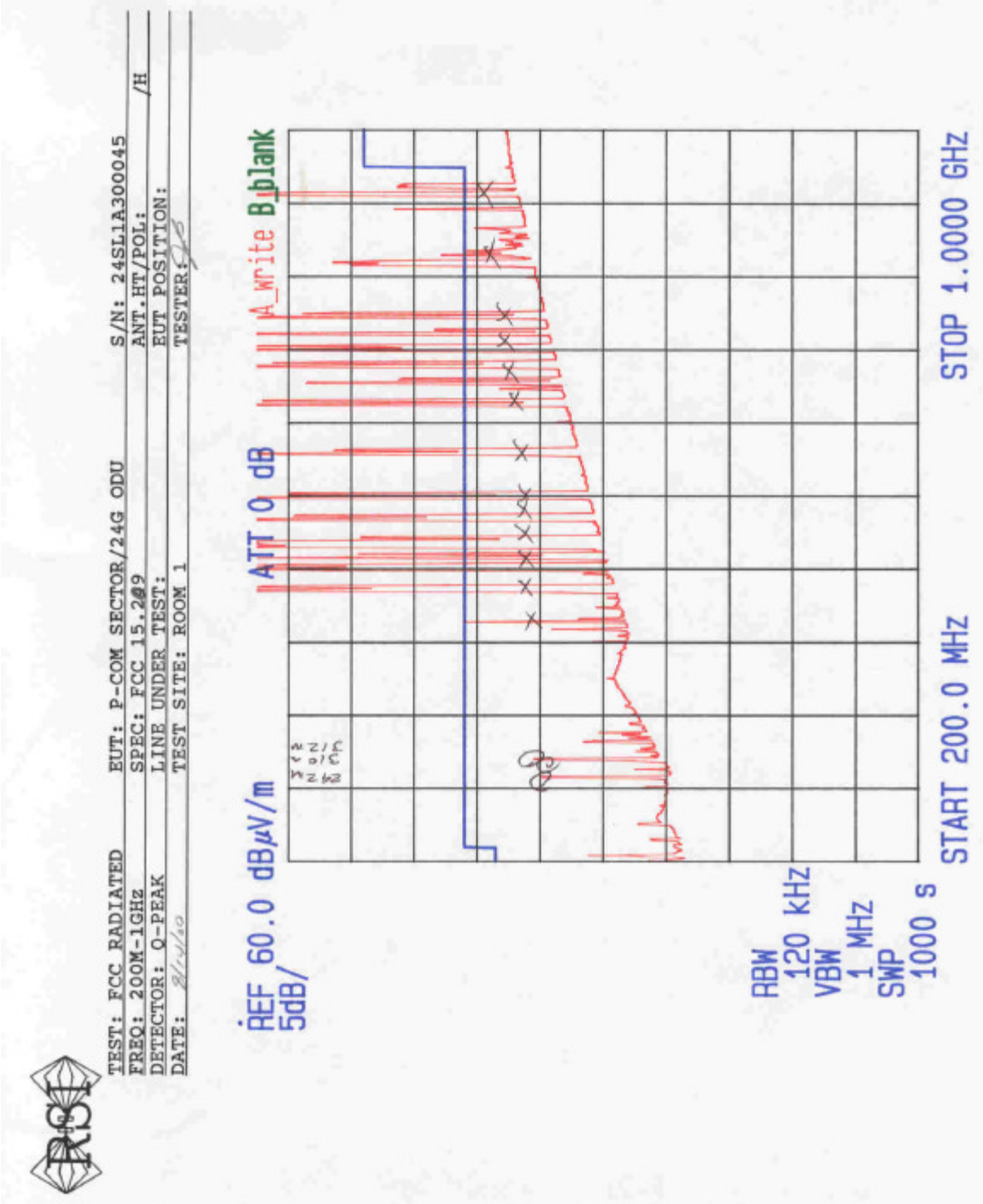
DATA SHEET 6.1.3.1-8



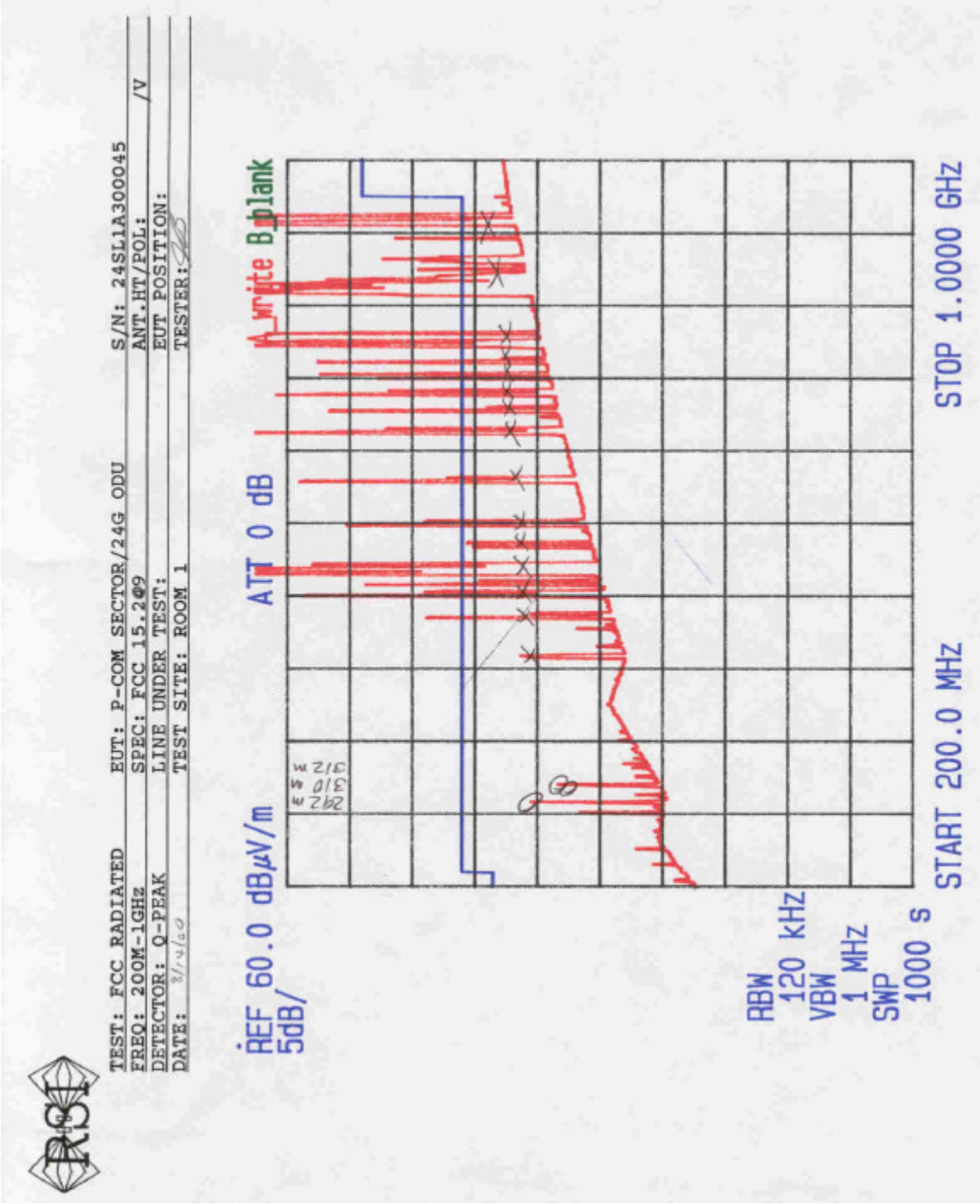
DATA SHEET 6.1.3.1-9



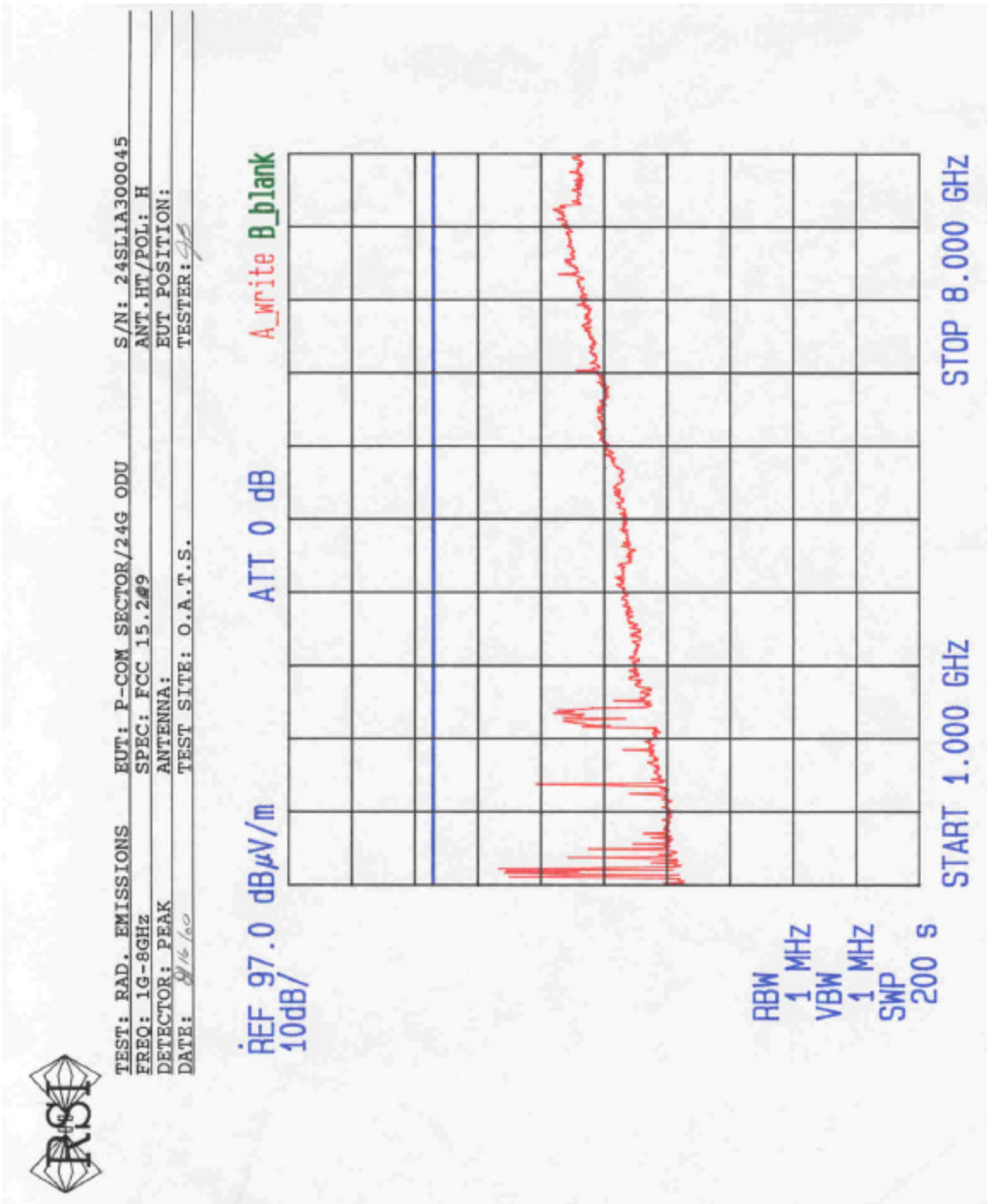
DATA SHEET 6.1.3.1-10



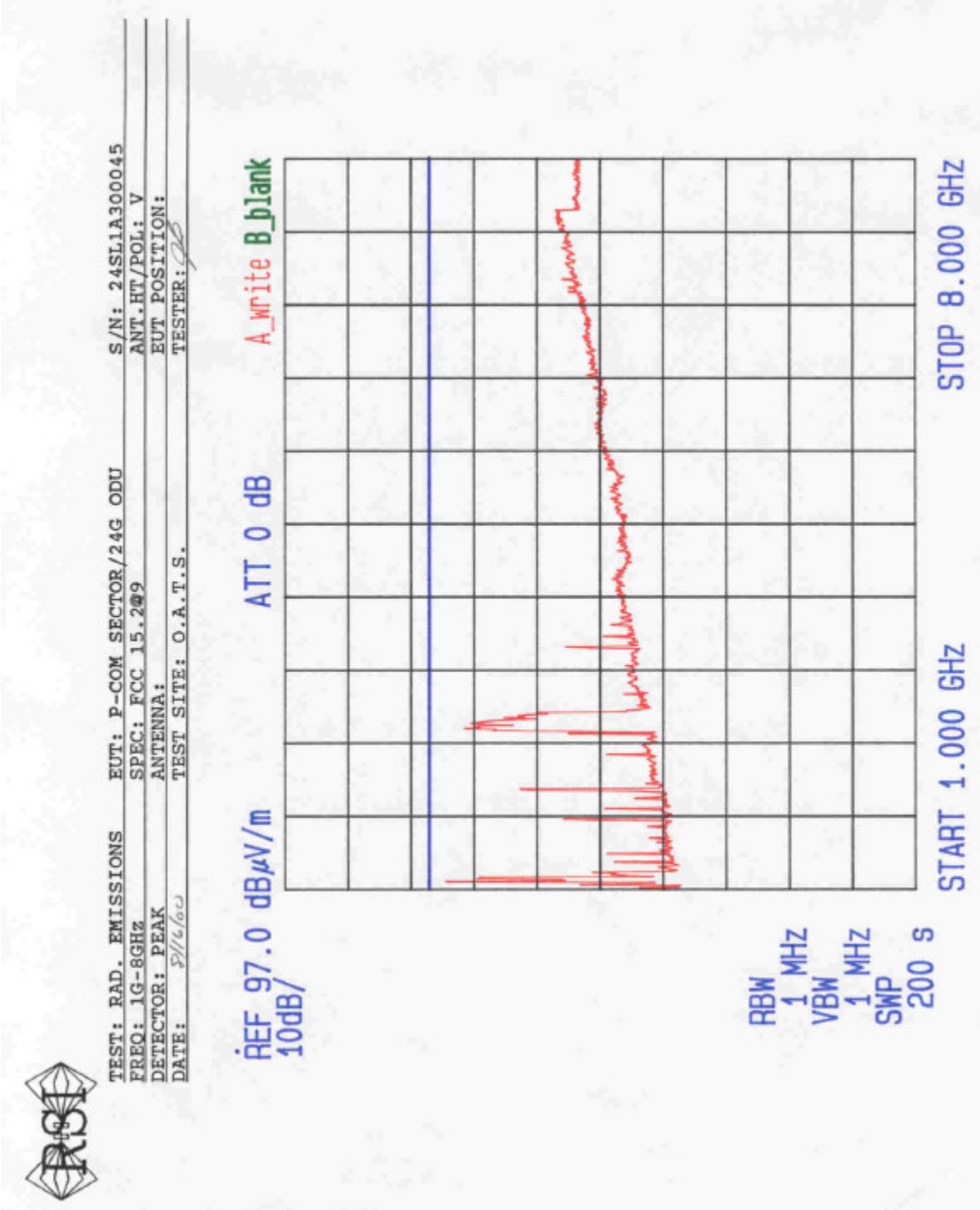
DATA SHEET 6.1.3.1-11



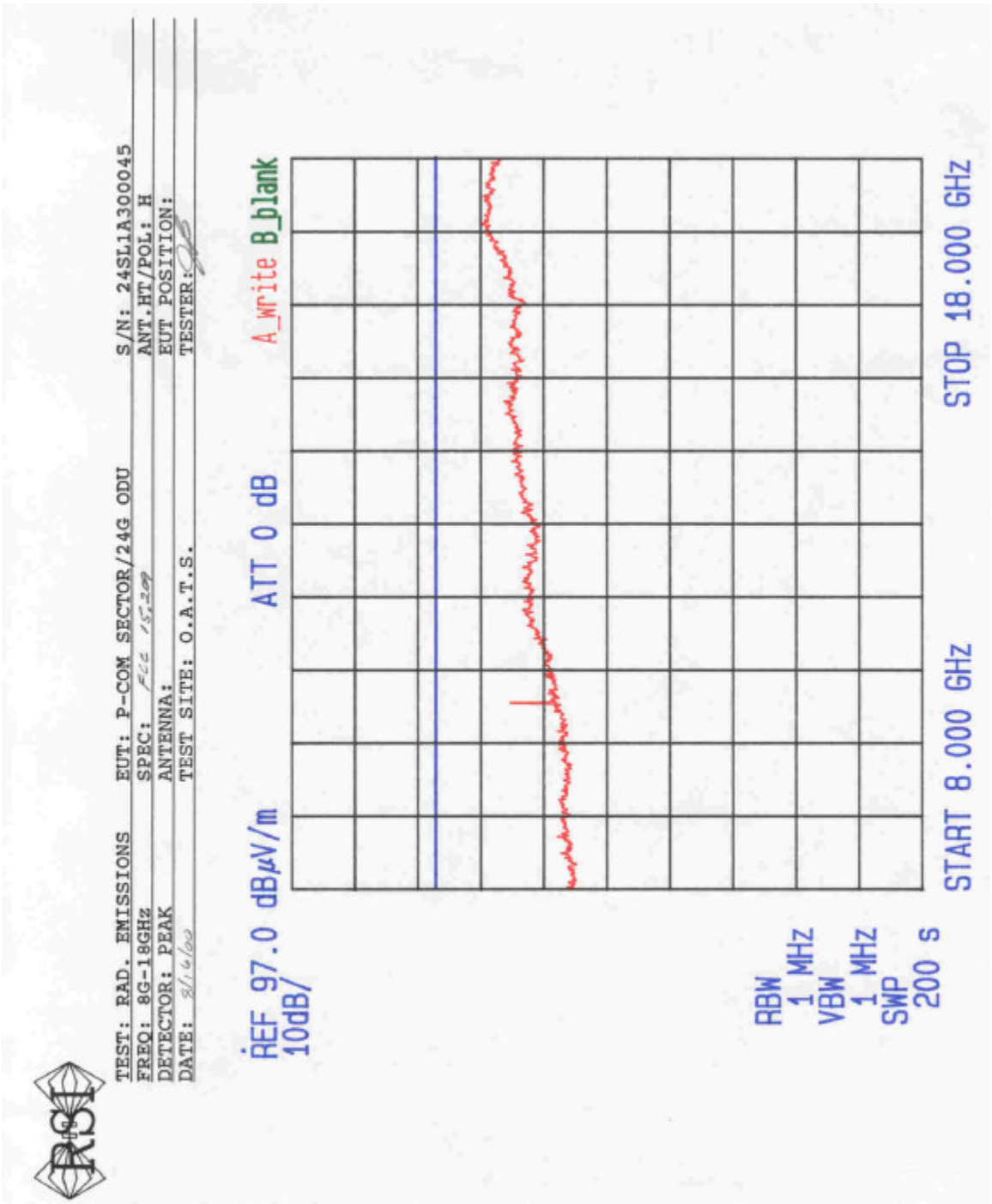
DATA SHEET 6.1.3.1-12



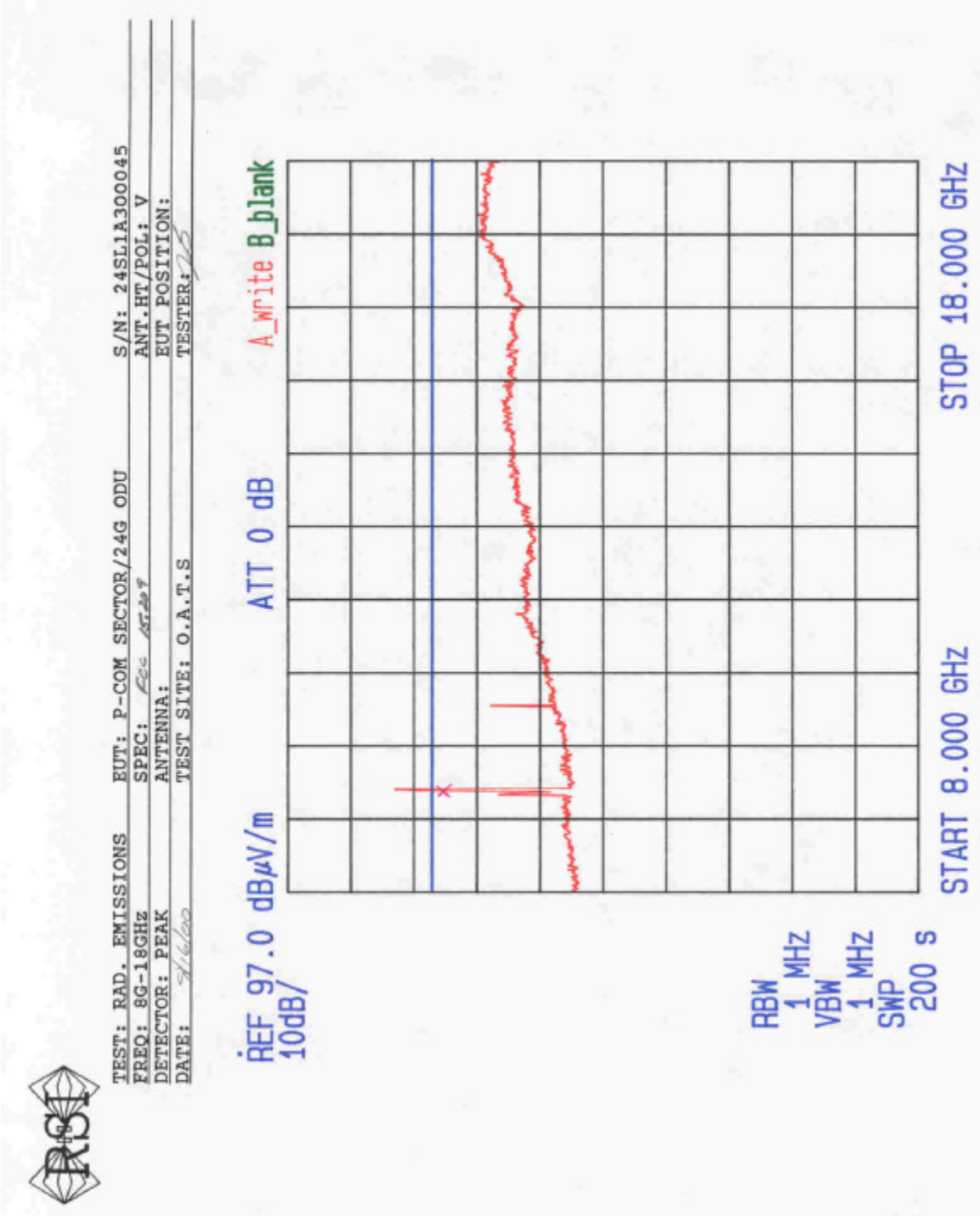
DATA SHEET 6.1.3.1-13



DATA SHEET 6.1.3.1-14



DATA SHEET 6.1.3.1-15



DATA SHEET 6.1.3.1-16