GENERAL INFORMATION REQUIREMENTS

Paragraph 2.983(a)

Name of Applicant:	Beyerdynamic
Address of Applicant:	56 Central Avenue Farmingdale, NY 11735
Name of Manufacturer:	Beyerdynamic GmbH and Co.
Address of Manufacturer:	TheresientraBe8 D-74072 Heilbronn, Germany

Paragraph 2.983(b)

Equipment Identification: **FCC ID: OSDMCWSTATION-1**

Paragraph 2.02(c)(1)

Necessary Bandwidth Determination:

The necessary bandwidth was calculated utilizing the following formula:

$B_n = 2M + 2D$ M = 67.9 kHz, D = 15 kHz

$B_n = 2(67.9) + 2(15) = 165.8$ kHz

Paragraph 2.1046

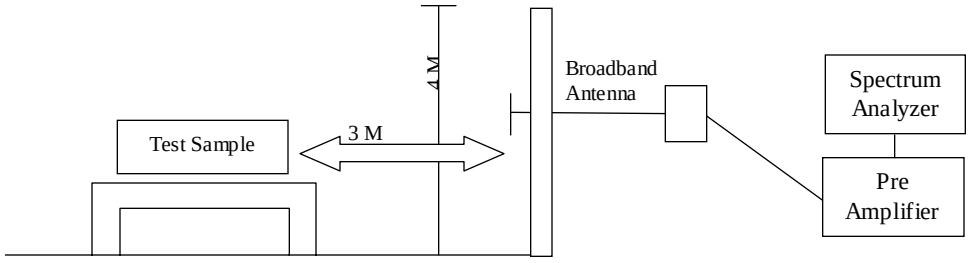
Power Output, Effective Radiated Power

POWER OUTPUT, EFFECTIVE RADIATED POWER (Para. 2.1046)

A. Measurement Procedure:

The transmitter under test was placed on an 80 cm. high non metallic table on the Open Air Test Site with it's antenna polarized vertically. A receive dipole antenna was placed three meters away from the transmitter. The turntable was rotated 360 degrees and the receive antenna was raised and lowered from 1 to 4 meters until a maximum reading was obtained. This reading was recorded. The transmitter under test was replaced with a dipole and signal generator. The signal generator was set to the frequency of the transmitter under test. The level of the signal generator was increased until the level was equal to that previously measured. The required input level from the signal generator in dBm was recorded and converted into milliwatts. This was the Effective Radiated Power of the transmitter. These measurements were recorded for the vertical and horizontal polarizations of the antenna.

Setup of the test is shown below:



B. Test Results:

The results for the above test are submitted as a separate attachment named ERP.pdf.

Paragraph 2.1047

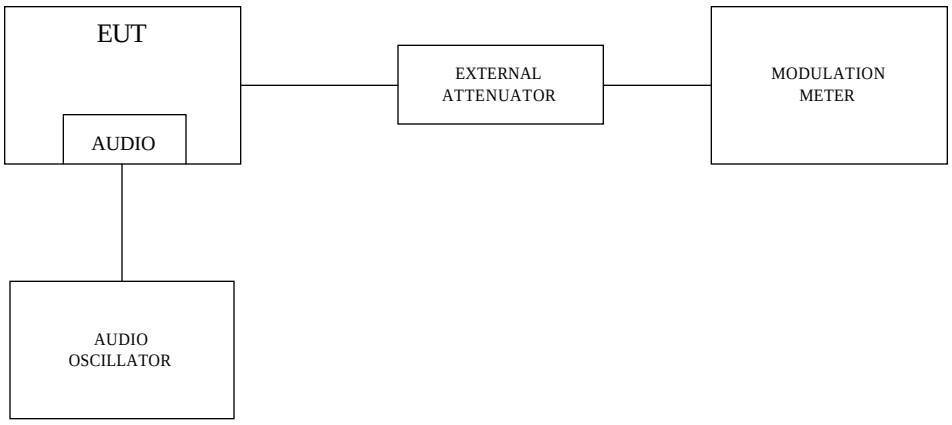
Modulation Characteristics

MODULATION CHARACTERISTICS (2.1047)

A. Measurement Procedure:

An Audio Oscillator was Acoustically coupled to the microphone of the transmitter under test. The RF Output at the antenna terminals was loosely coupled to a modulation meter as shown below.
The sound pressure level applied to the microphone was adjusted from 70dBspl to 120dBspl at each frequency listed herein. At each test frequency and level, the FM modulation was recorded.

Setup of the above test is shown below:



B. Test Results:

The test data for this method are being submitted as a separate attachment, named modchar.pdf.

Paragraph 2.1049

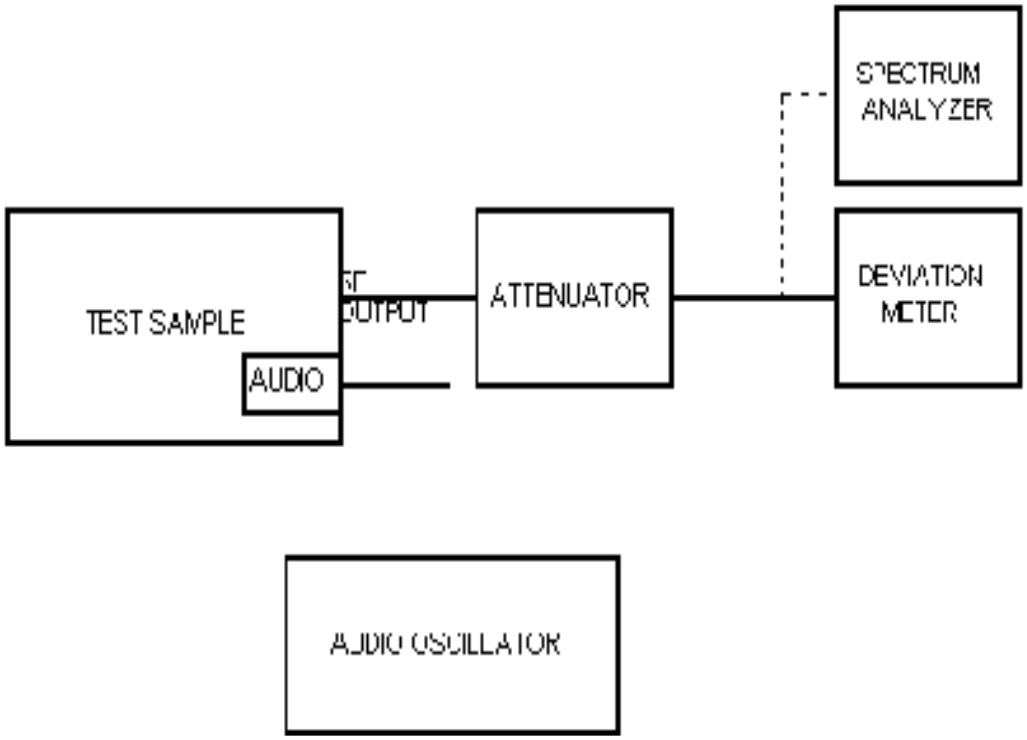
Occupied Bandwidth

OCCUPIED BANDWIDTH (PARA.2.1049)

A. Measurement Procedure:

An audio signal was Acoustically coupled to the audio microphone of the test sample. The RF output was monitored using a deviation meter. The audio input level was increased to produce a sound pressure level of 88dBspl. The RF output was then loosely coupled through external attenuators to a spectrum analyzer. The occupied bandwidth of the RF carrier, modulated at 88dBspl, was then measured. The above procedure was performed with the audio input frequencies of 1000, 2500, and 15000 Hz. The modulated signal must be within the template as specified by the applicable paragraph in Part 74. The above was performed at the low, middle and high frequencies.

Setup of the test is shown below:



B. Test Results:

The results for the above test are submitted as a separate attachment named occbw.pdf.

Para. 2.1053

Field Strength of Spurious Radiation

FIELD STRENGTH OF SPURIOUS RADIATION (PARA 2.1053)

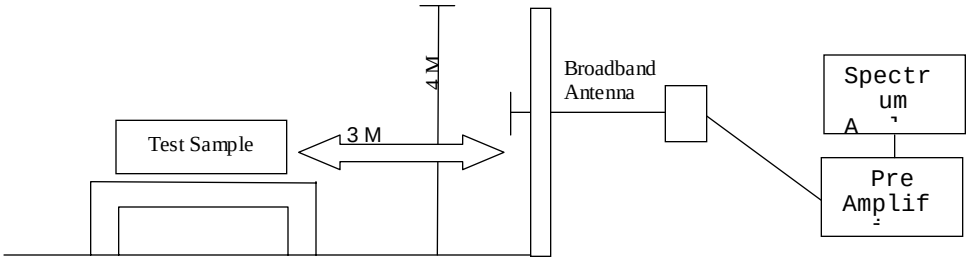
A. Measurement Procedure:

The test sample was then placed on an 80cm high wooden test stand which was located three meters from the test antenna on an FCC listed test site. The frequency range scanned was from the lowest frequency generated by the test sample to its tenth harmonic. In order to maximize the level of each emission observed from the test sample, the broadband antenna was tuned to the frequency of each emission and the test sample was rotated 360 degrees. To further maximize the each emission observed, the test antenna was both horizontally and vertically polarized, and then was raised and lowered from one to four meters from the ground plane. The limits for all of the spurious emissions was calculated utilizing the measured output power and the following equation:

Limit <dB:V/M> = $20 \log [\{(49.2 \times P_T)^{½}/3\} \times 10^6] - (43 + 10 \log P_T)$

The above procedure was performed at the lower, middle and upper frequencies of the device's range.

Setup of the test is shown below:



B. Test Results:

The results for the above test are submitted as a separate attachment named spurious.pdf.

Paragraph 2.1055

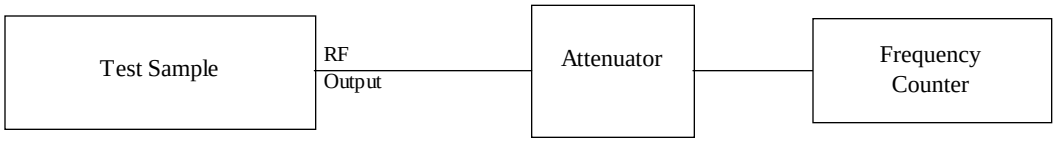
Frequency Stability

FREQUENCY STABILITY MEASUREMENTS

A. Measurement Procedure (Frequency vs. Voltage):

The RF output of the test sample was coupled to a frequency counter through external attenuation. Using a Variable power supply and voltmeter, the input voltage was varied. Measurements were taken with the device being supplied with 85, 100, and 115 percent of its rated input voltage and set to transmit the unmodulated carrier frequency.

Setup of the test is shown below:



B. Test Results:

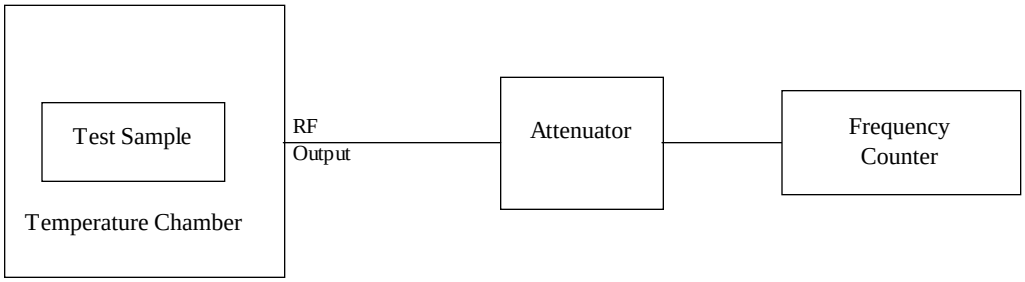
The results for the above test are submitted as a separate attachment named freqvolt.pdf.

FREQUENCY STABILITY MEASUREMENTS (PARA 2.995)

A. Measurement Procedure (Frequency vs. Temperature)

The RF output of the test sample was coupled to a frequency counter through external attenuators. With the counter connected, the test sample was activated and placed into a temperature chamber. The temperature was then programmed to start at -30 degrees Celsius and reach +50 degrees Celsius in 10 degrees increments. Each increment was held for 30 minutes in order to let the test sample stabilize at that temperature.

Setup of the test is shown below:



B. Test Results:

The results for the above test are submitted as a separate attachment named freqtemp.pdf.

This device contains a thermal switch, which shuts the transmitter off below -10°C.

EQUIPMENT LIST

Equipment List

EN	Type	Manufacturer	Frequency Range	Model No.	Cal Date	Due Date
067	Open Area Test Site	Retlif	3 Meter	RNY	10/15/97	10/15/00
128C	Double Ridge Guide	Eaton Corporation	1 GHz - 18 GHz	96001	9/16/99	9/16/00
133	Broadband Pre-Amplifier	Electro-Metrics	10 kHz - 1 GHz, 26dB	BPA-1000	6/22/99	6/22/00
141	Spectrum Analyzer	Hewlett Packard	100 Hz - 40 GHz	8566B	9/20/99	3/20/00
141A	Graphics Plotter	Hewlett Packard	N/A	7470A	3/5/99	3/5/00
141B	Quasi-Peak Adaptor	Hewlett Packard	100 Hz - 1 GHz	85650A	9/20/99	3/20/00
159	Frequency Counter	Leader	10 Hz - 1 GHz	LDC-825	9/15/99	9/15/00
206B	6.0 dB Attenuator	Texscan	0 - 1.0 GHz	FP-50 - 6 dB	6/22/99	6/22/00
419	Modulation Meter	Boonton Electronics	.01 - 1.2 GHz	82AD	4/30/99	4/30/00
443	Log Periodic Antenna	Electro-Metrics	200 MHz - 1000 MHz	LPA-25	12/16/98	12/16/99
479	20 dB Attenuator	Weinschel	25 W IN, 5 kW Peak	33-20-34	4/29/99	4/29/00
512	Graphics Plotter	Hewlett Packard	N/A	7470A	11/3/99	11/3/00
520F	Digital Multimeter	Wavetek	N/A	DM25XT	7/6/99	1/6/00
523	Biconilog	Electro-Mechanics	26 - 2000 MHz	3142B	10/22/98	4/22/00
530	AM/FM Signal Generator	Marconi Instru.	10 kHz - 1.2 GHz	2023	4/29/99	4/29/00
543	Preamplifier	Hewlett Packard	1.0 GHz - 26.5 GHz	8449B	6/16/99	6/16/01
586	Synthesizer/Function	Hewlett Packard	.1 Hz - 20 MHz	3325A	7/19/99	7/19/00
7016	EMC Analyzer	Hewlett Packard	9kHz - 1.8GHz	8591EM	5/13/99	5/13/00