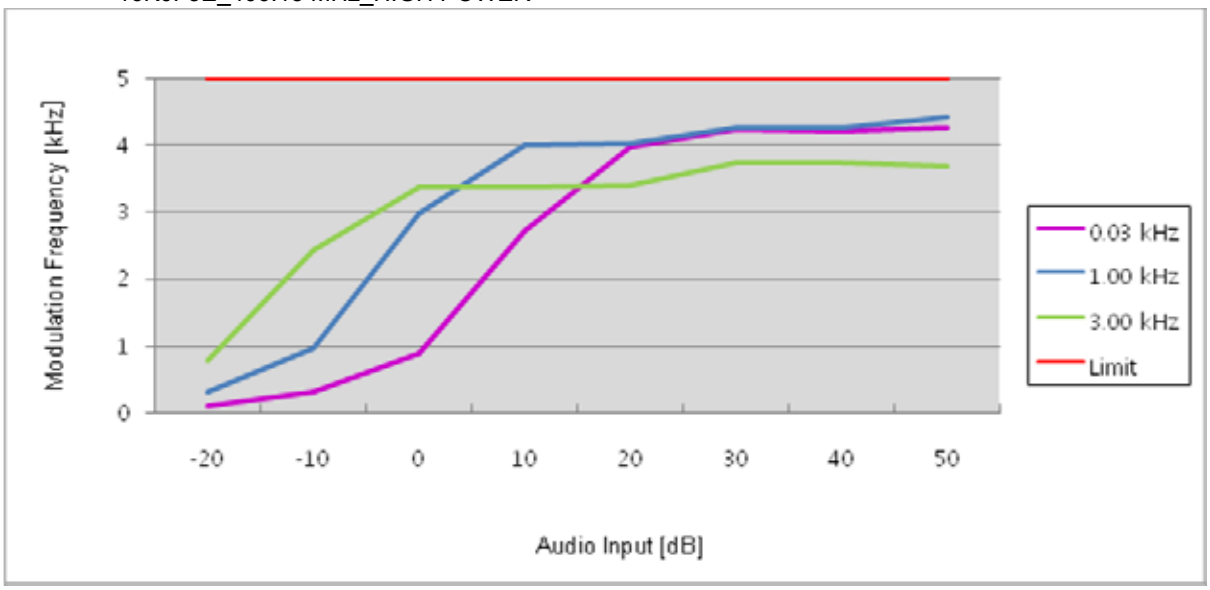
▣ TEST RESULTS

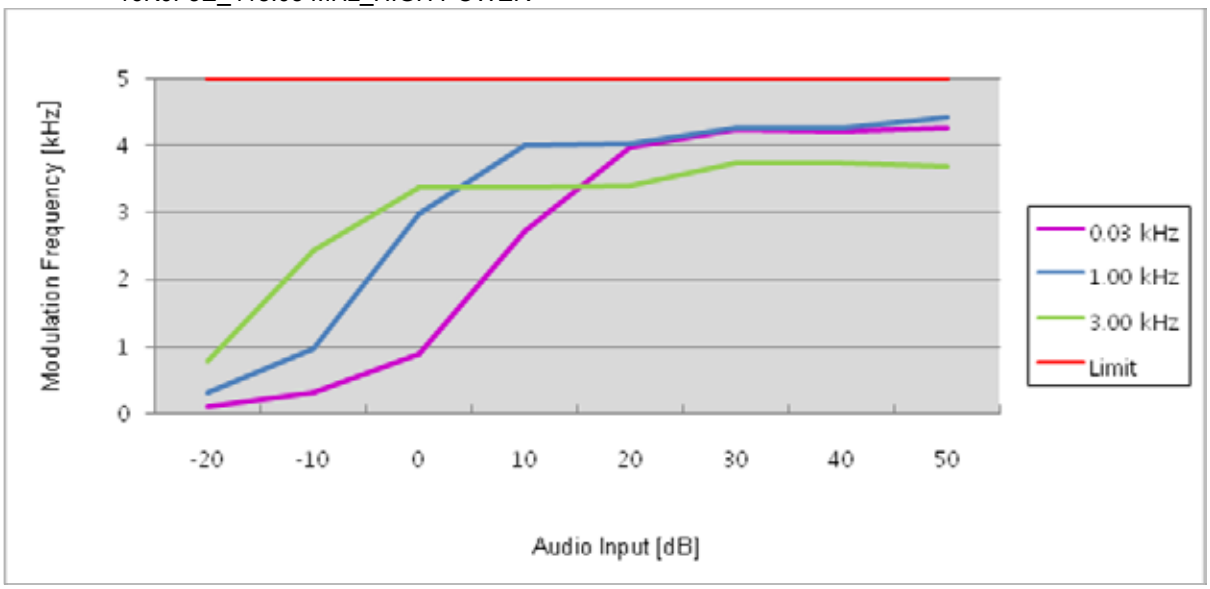
16K0F3E_ For IC

Negative Peaks

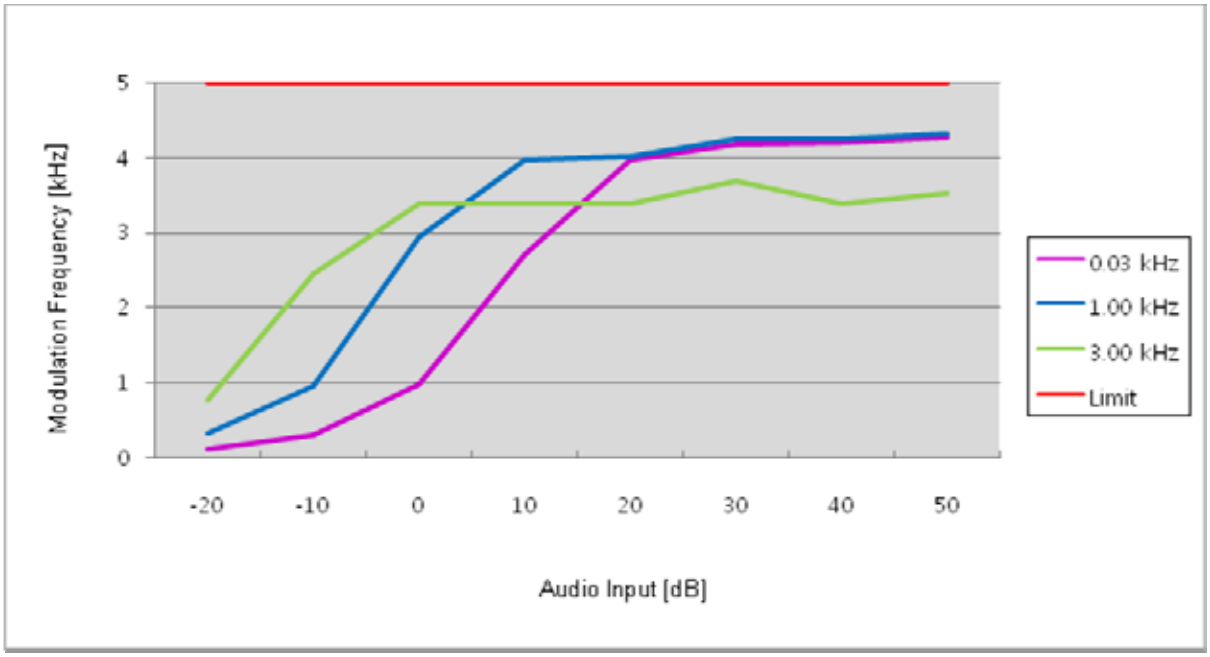
16K0F3E_406.15 MHz_HIGH POWER



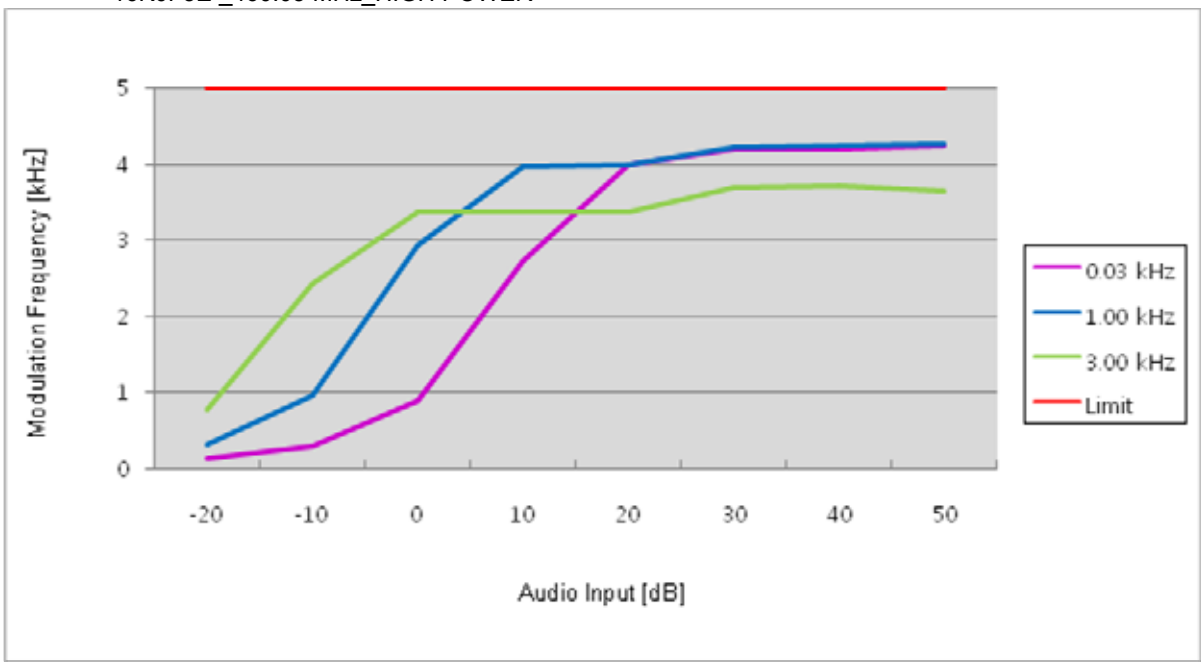
16K0F3E_418.05 MHz_HIGH POWER



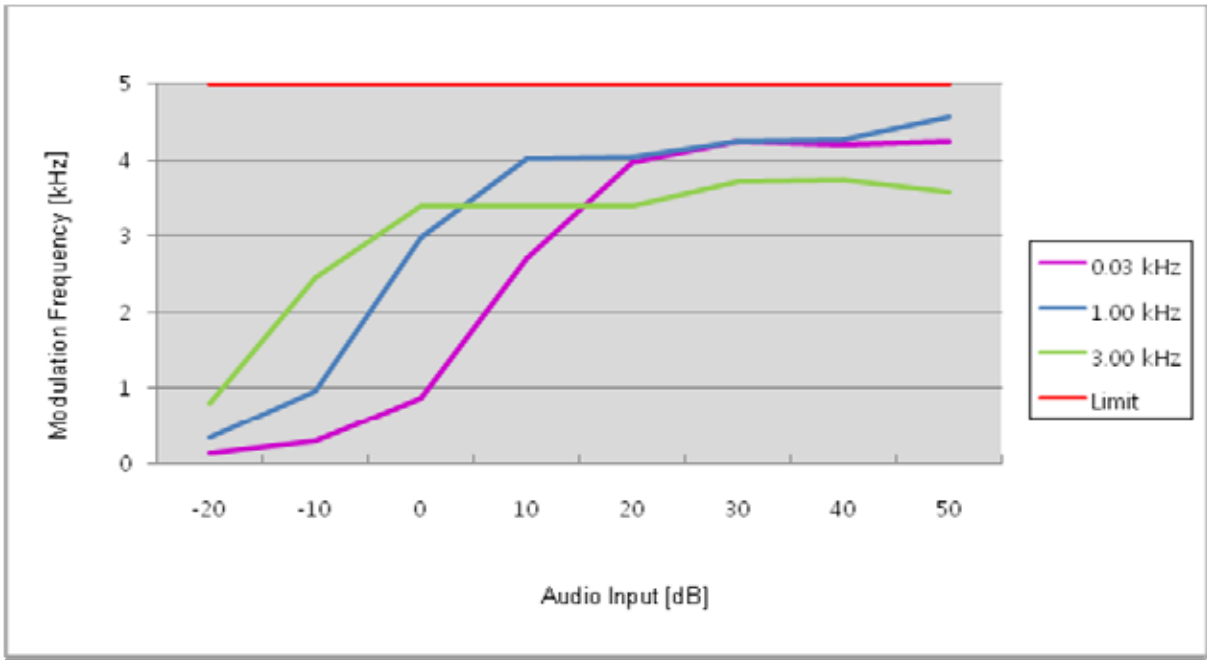
16K0F3E _450.05 MHz_HIGH POWER



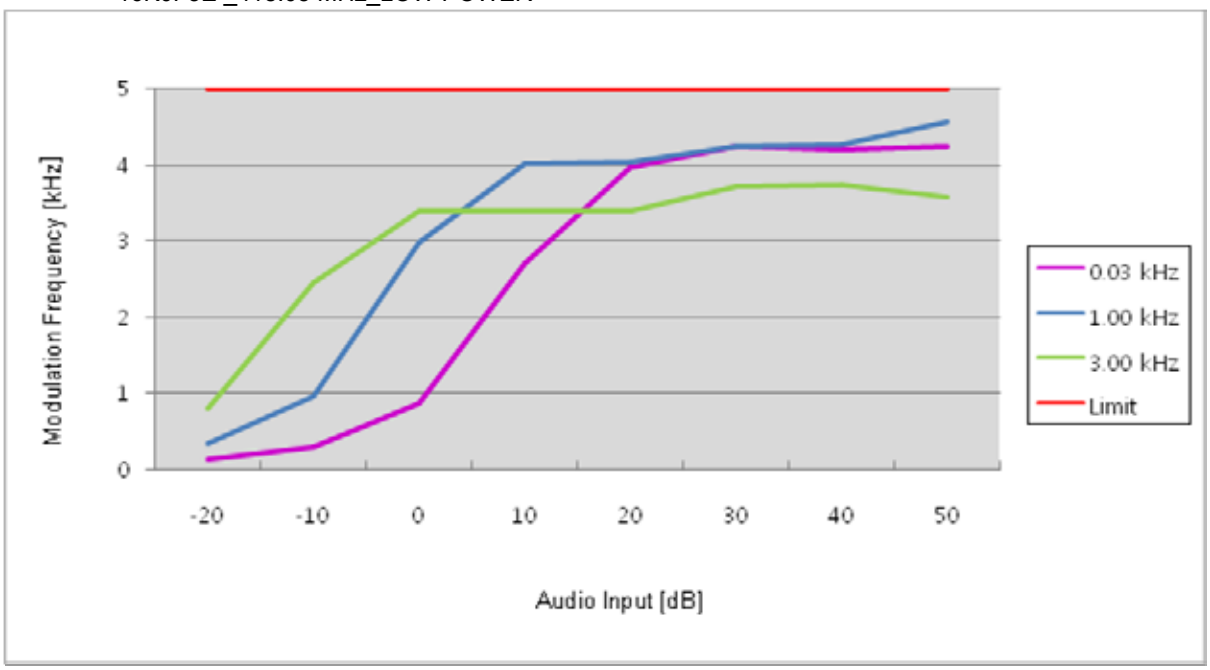
16K0F3E _460.05 MHz_HIGH POWER



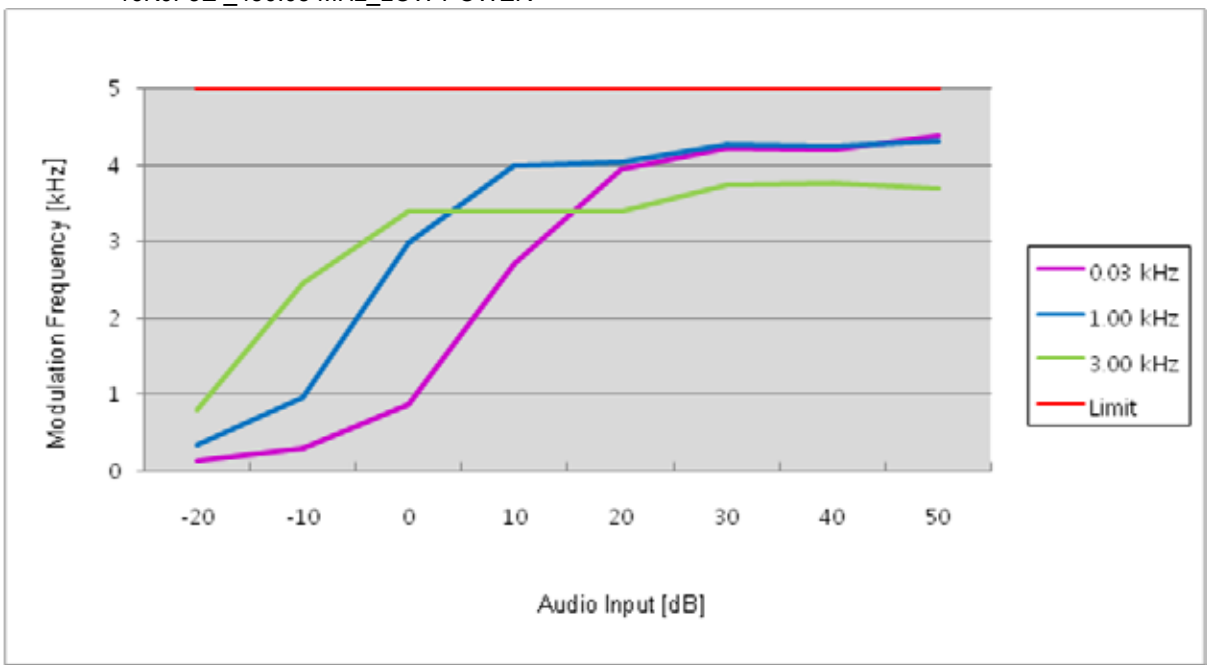
16K0F3E _406.15 MHz_LOW POWER



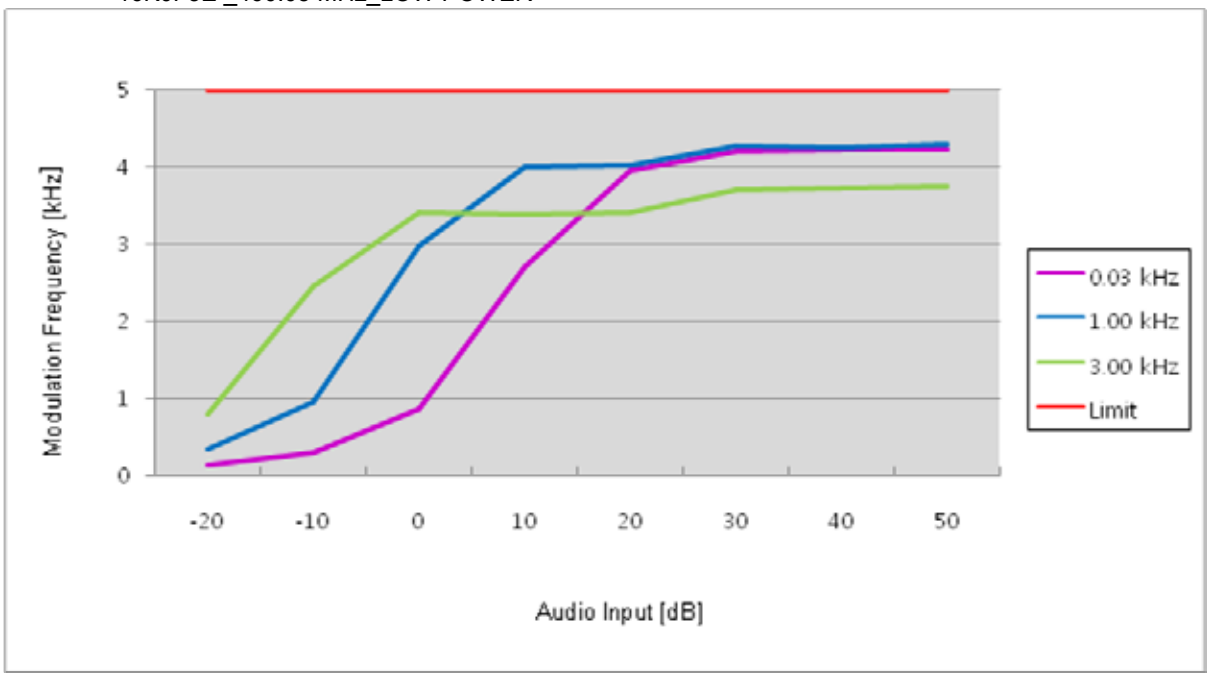
16K0F3E _418.05 MHz_LOW POWER



16K0F3E _450.05 MHz_LOW POWER

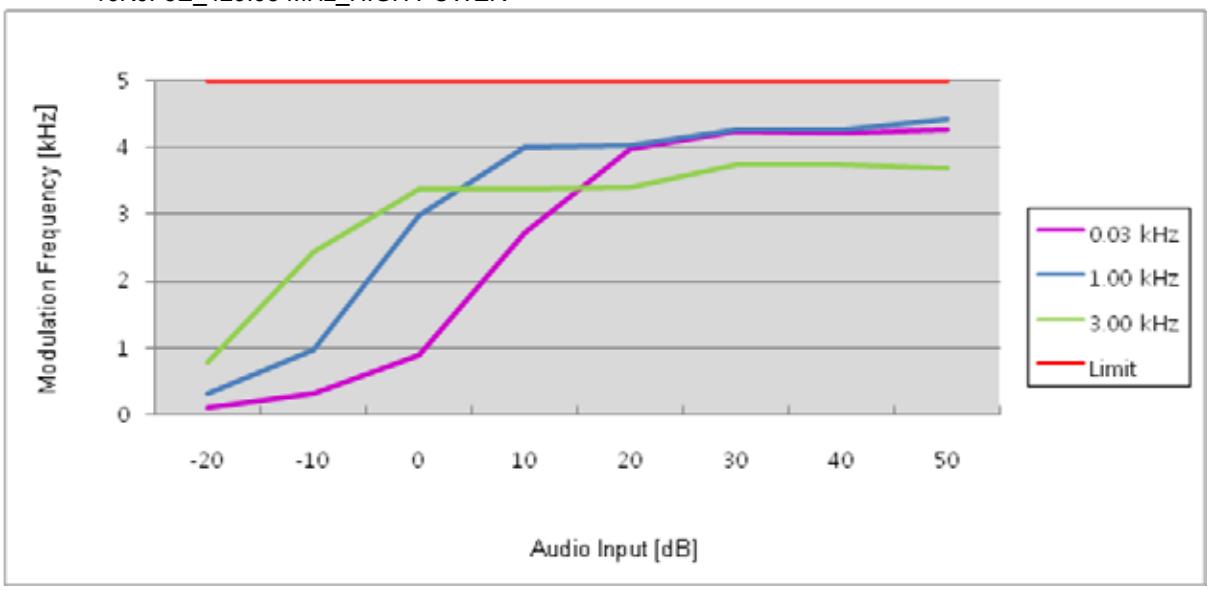


16K0F3E _460.05 MHz_LOW POWER

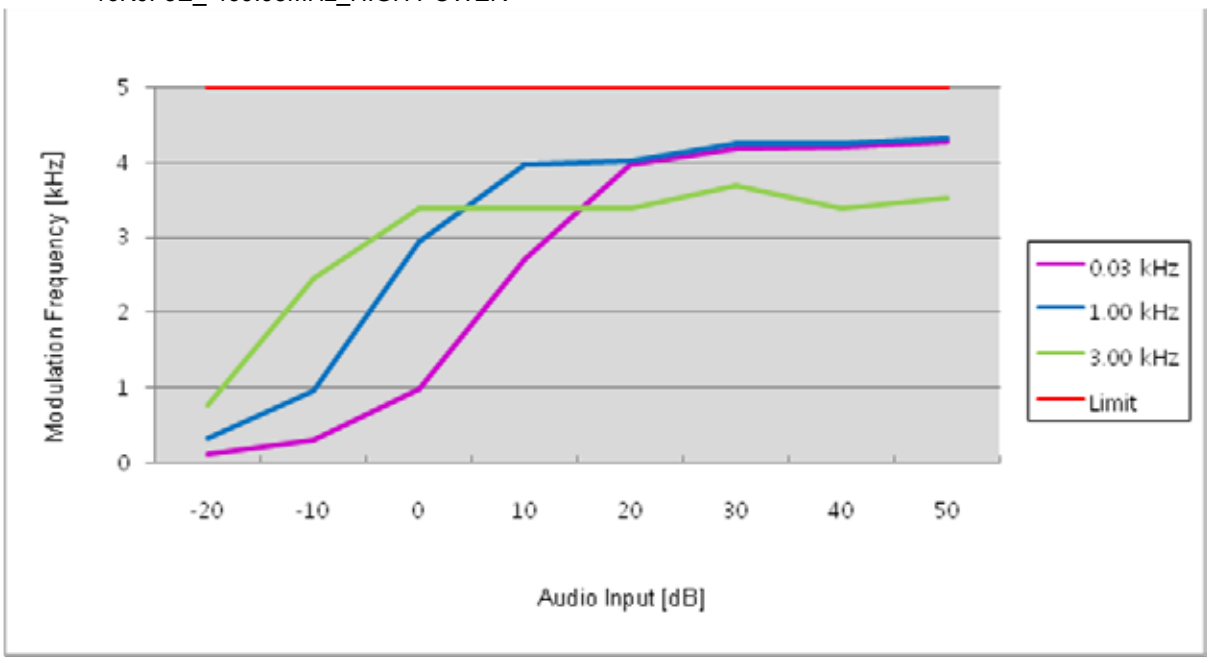


Negative Peaks

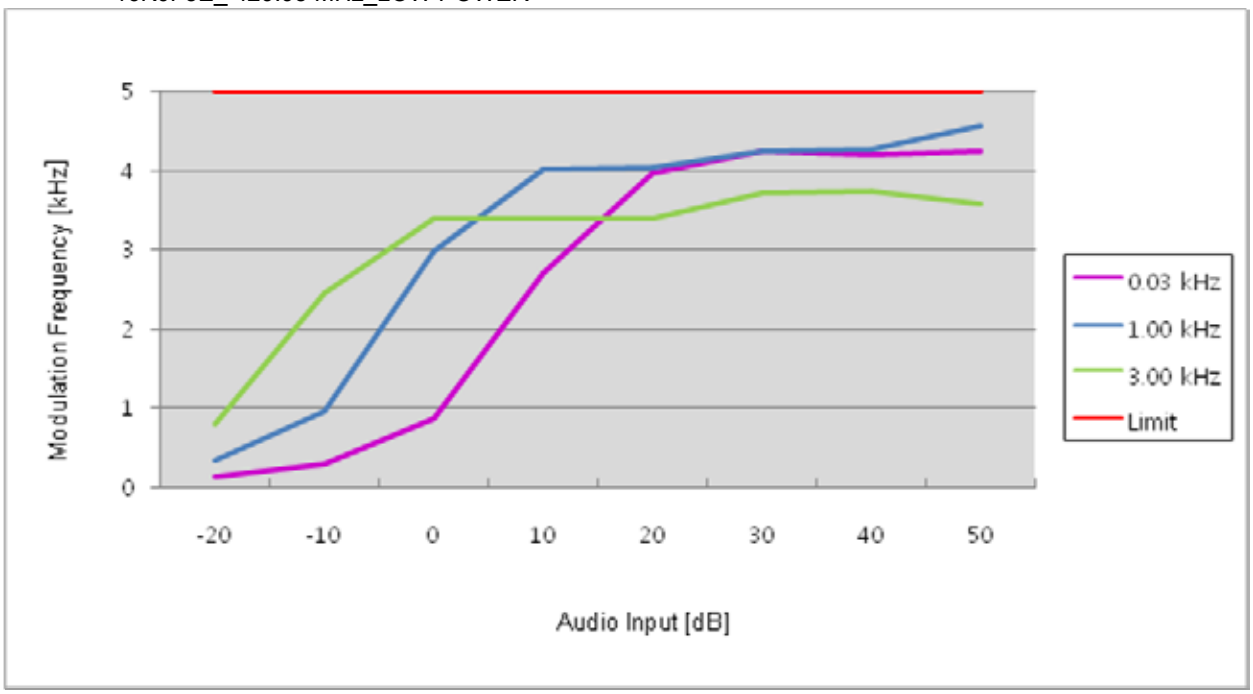
16K0F3E_429.95 MHz_HIGH POWER



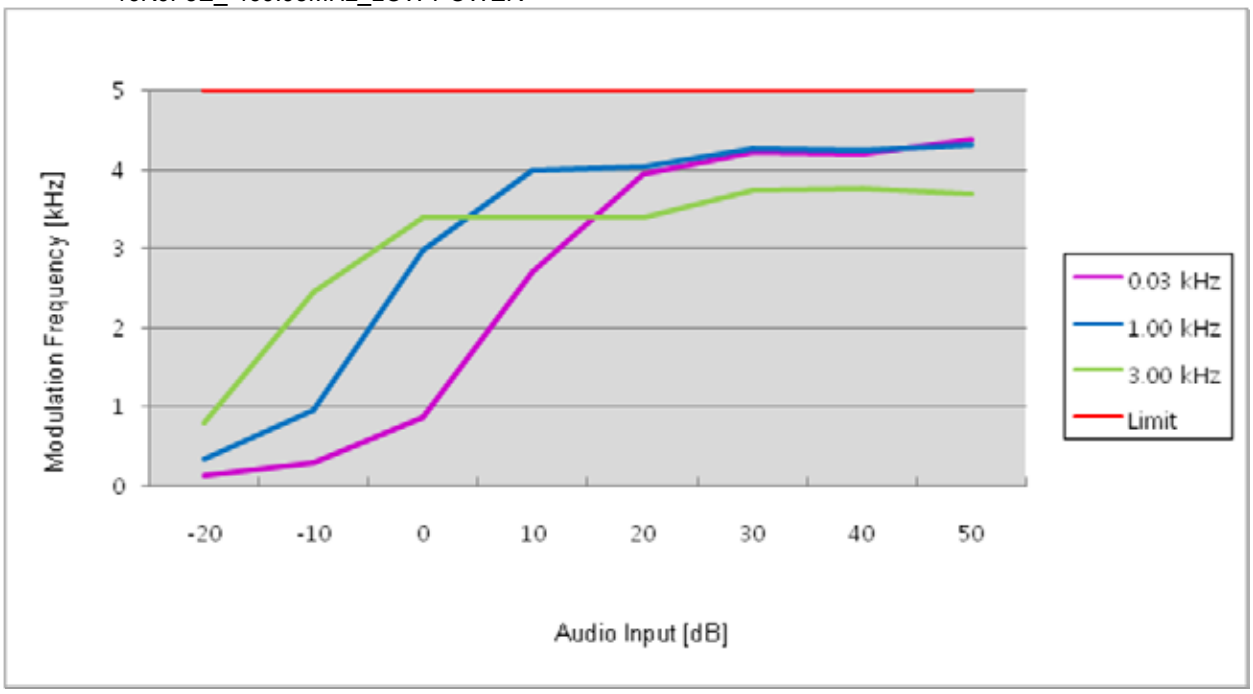
16K0F3E_ 469.95MHz_HIGH POWER



16K0F3E_ 429.95 MHz_LOW POWER



16K0F3E_ 469.95MHz_LOW POWER

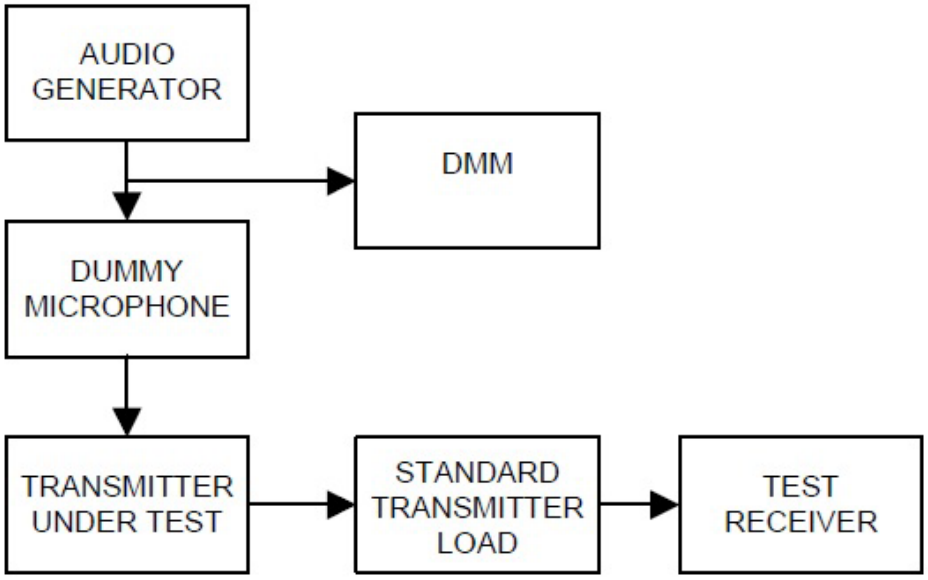


7.5 Audio Frequency Response / Audio Low Pass Filter Response

▣ Definition

The audio frequency response is the degree of closeness to which the frequency deviation of the transmitter follows a prescribed characteristic.

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

According to 2.2.6 in TIA-603-D Standard.

a) Connect the equipment as illustrated.
b) Set the test receiver to measure peak positive deviation. Set the audio bandwidth for ≤ 50 Hz to ≥ 15,000 Hz. Turn the de-emphasis function off.
c) Set the DMM to measure rms voltage.
d) Adjust the transmitter per the manufacturer's procedure for full rated system deviation.
e) Apply a 1000 Hz tone and adjust the audio frequency generator to produce 20% of the rated system deviation.
f) Set the test receiver to measure rms deviation and record the deviation reading.
g) Record the DMM reading as $V_{REF.}$
h) Set the audio frequency generator to the desired test frequency between 300 Hz and 3000 Hz.
i) Vary the audio frequency generator output level until the deviation reading that was recorded in step f) is obtained.
j) Record the DMM reading as $V_{FREQ.}$
k) Calculate the audio frequency response at the present frequency as:
audio frequency response = $20 * \log_{10}(V_{FREQ}/V_{REF})$

l) Repeat steps h) through k) for all the desired test frequencies.

*Note : Audio Filter of the above result is substituted with the same structure as Audio Frequency Response.

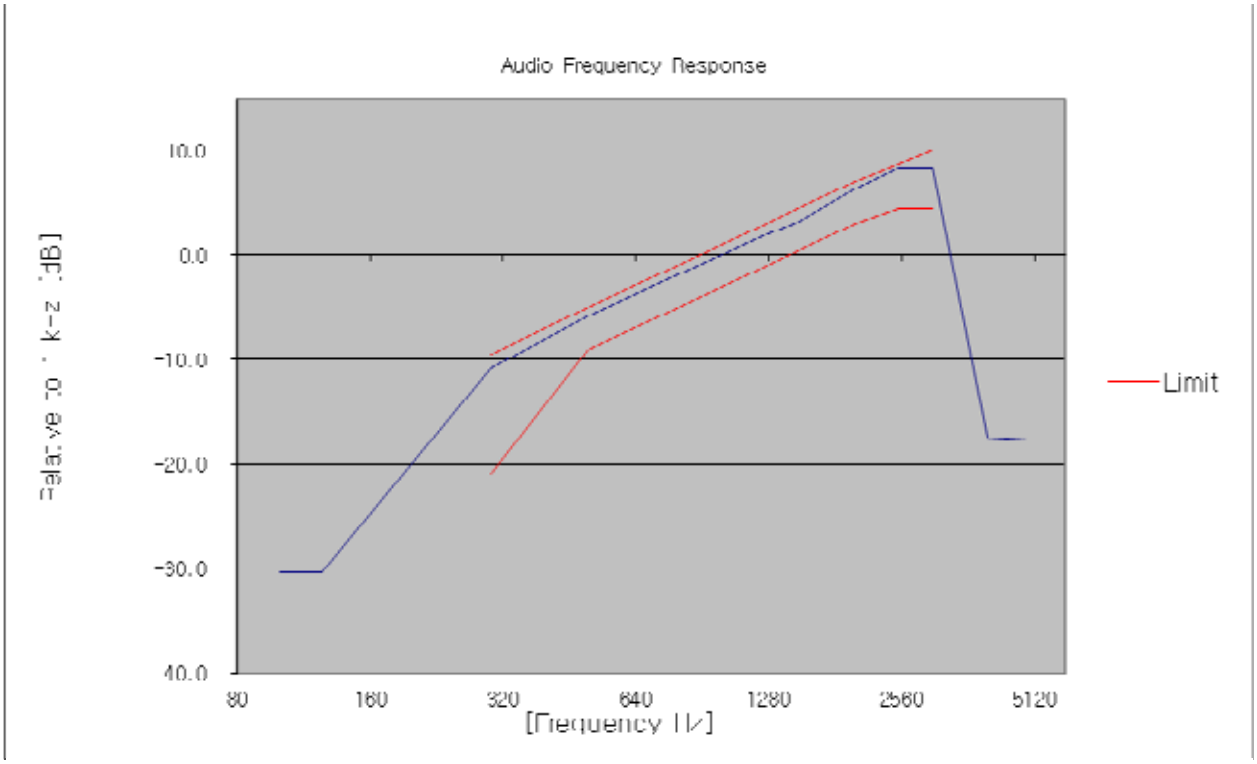
On the transmission condition below 3kHz, Transceiver shows pre-emphasis condition of transmission function.

On the transmission condition above 3kHz, Transceiver shows Audio Low Pass Filter.

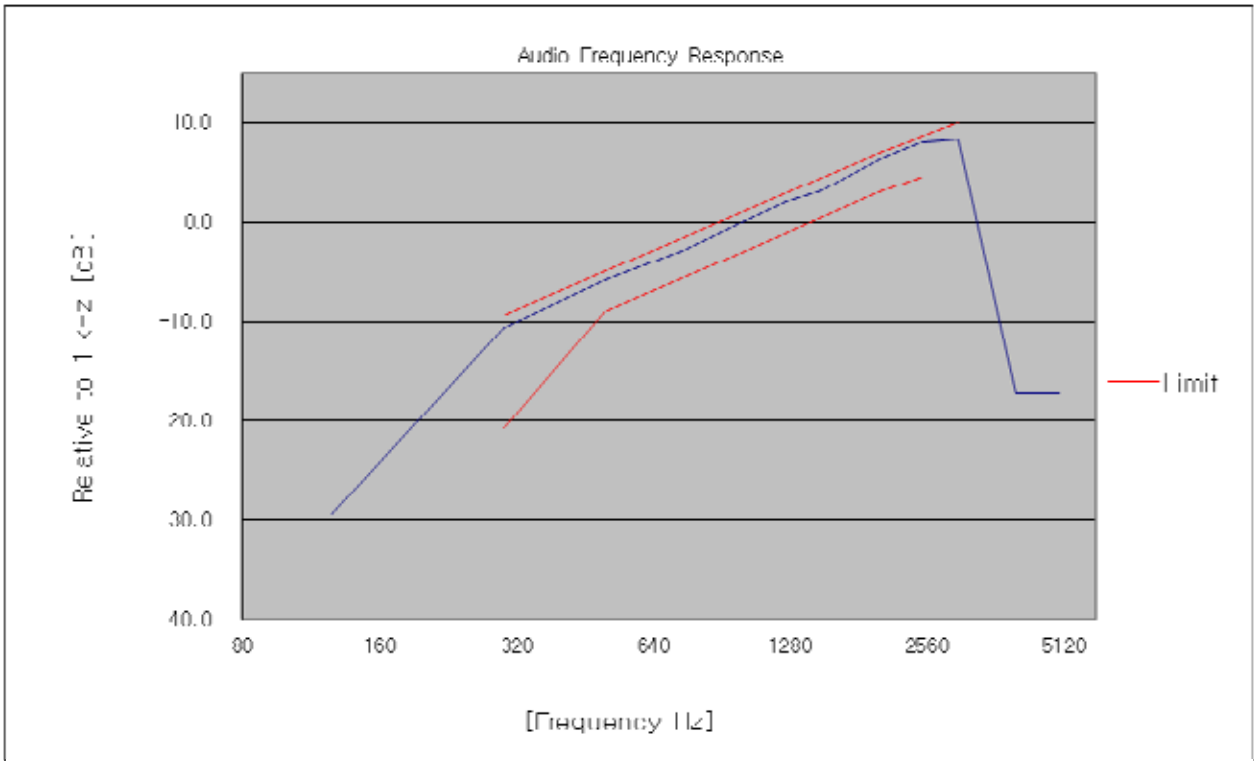
▣ TEST RESULTS

11K0F3E For FCC

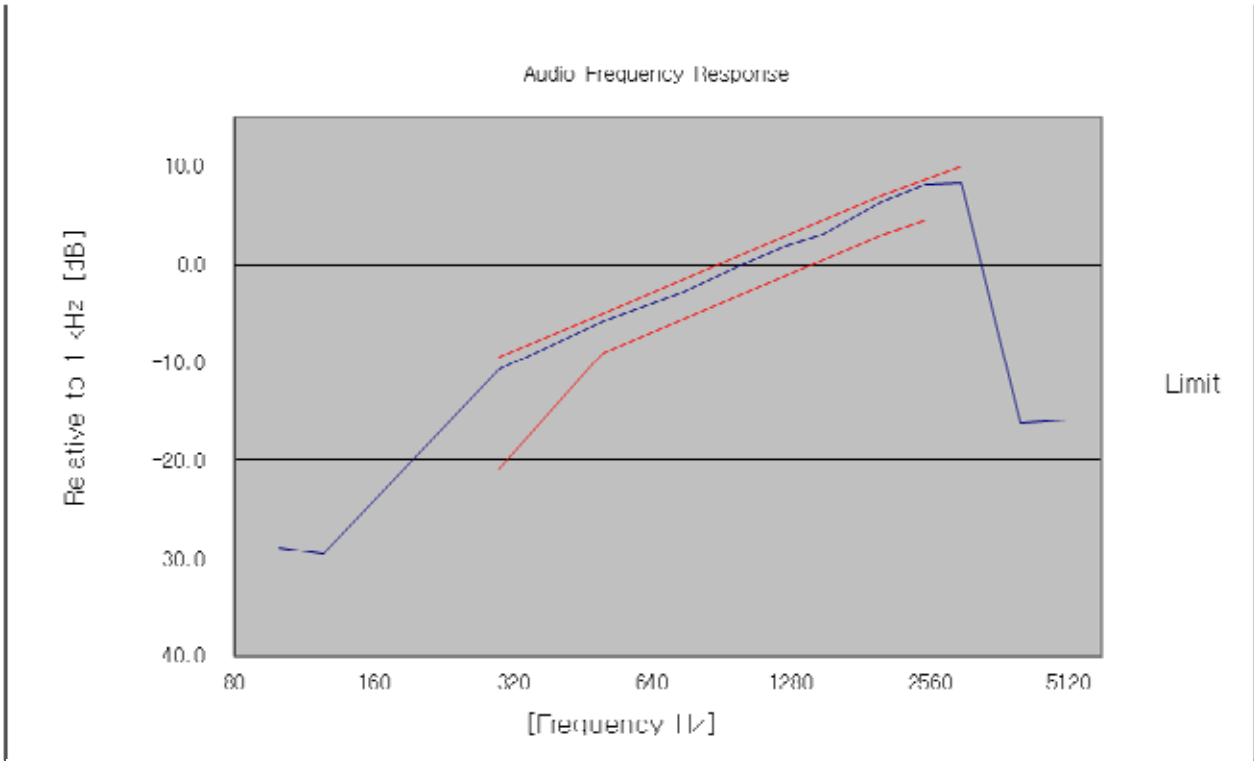
11K0F3E_ 406.15 MHz_HIGH POWER



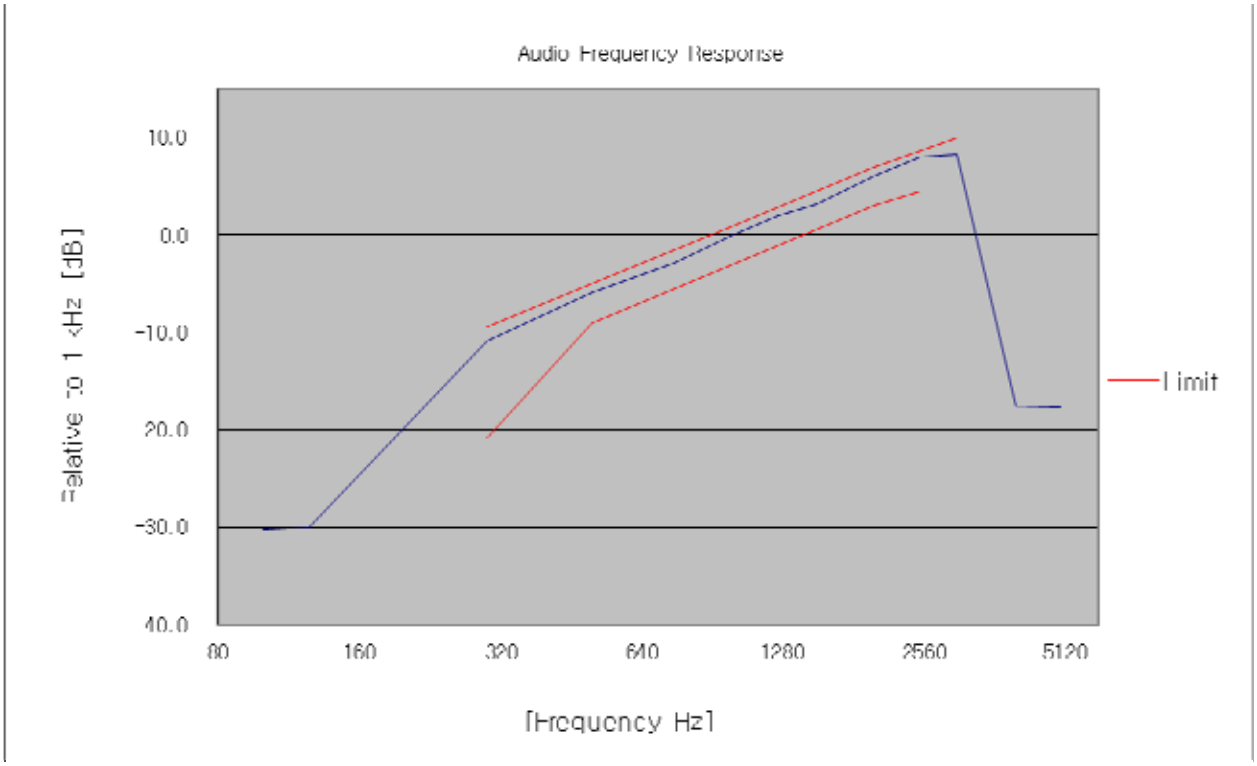
11K0F3E_ 429.95 MHz_HIGH POWER



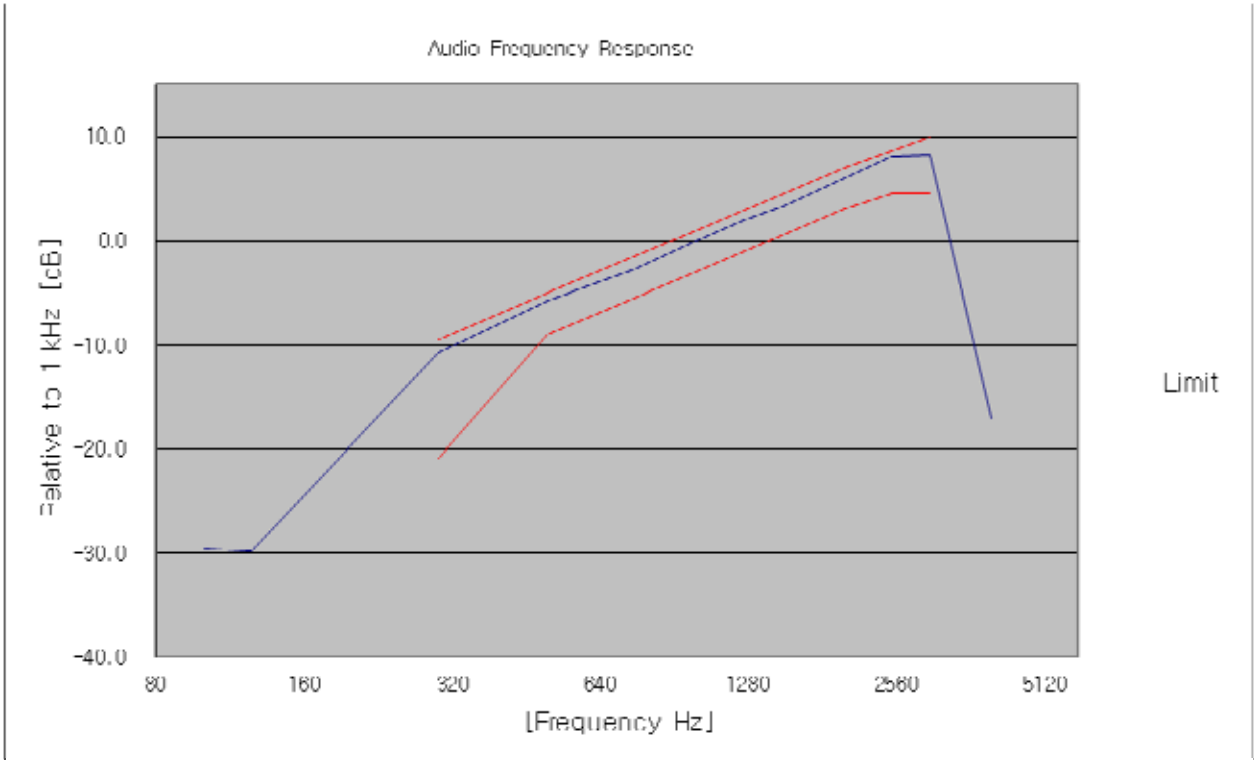
11K0F3E_ 469.95 MHz_HIGH POWER



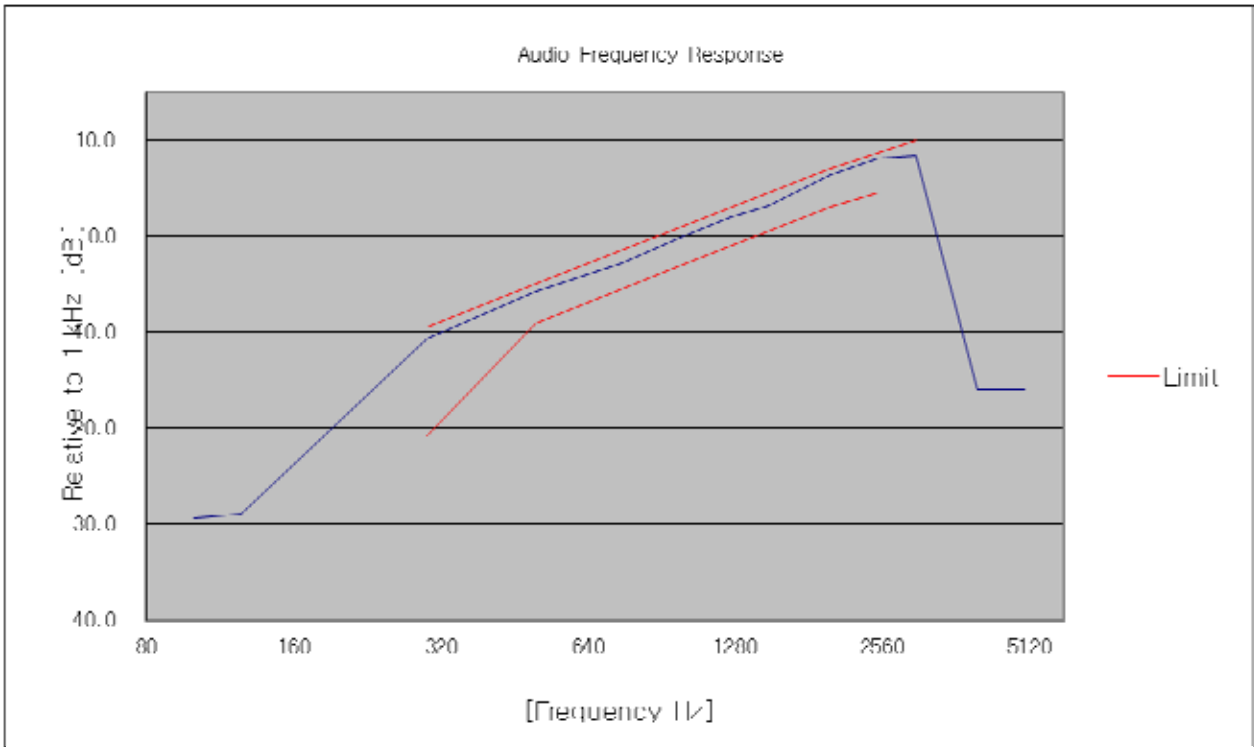
11K0F3E_ 406.15 MHz_LOW POWER



11K0F3E_ 429.95 MHz_LOW POWER

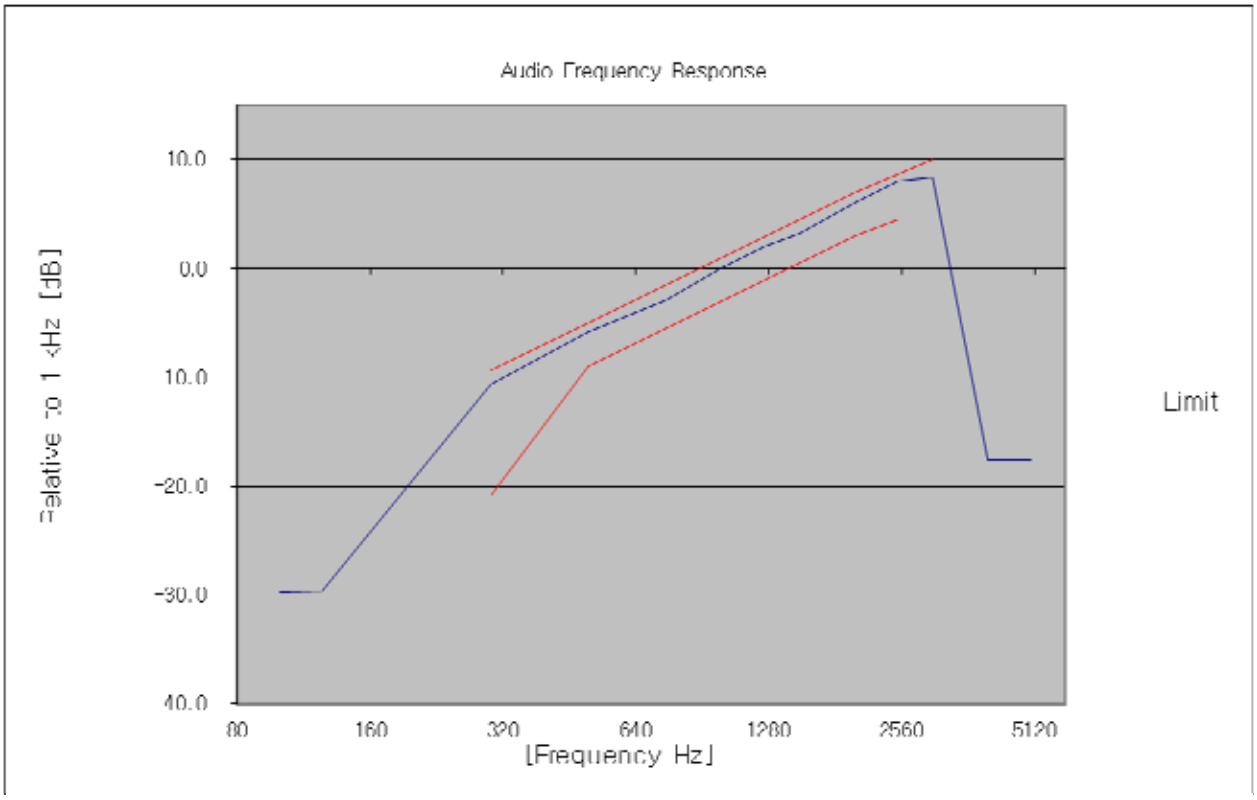


11K0F3E_ 469.95 MHz_LOW POWER

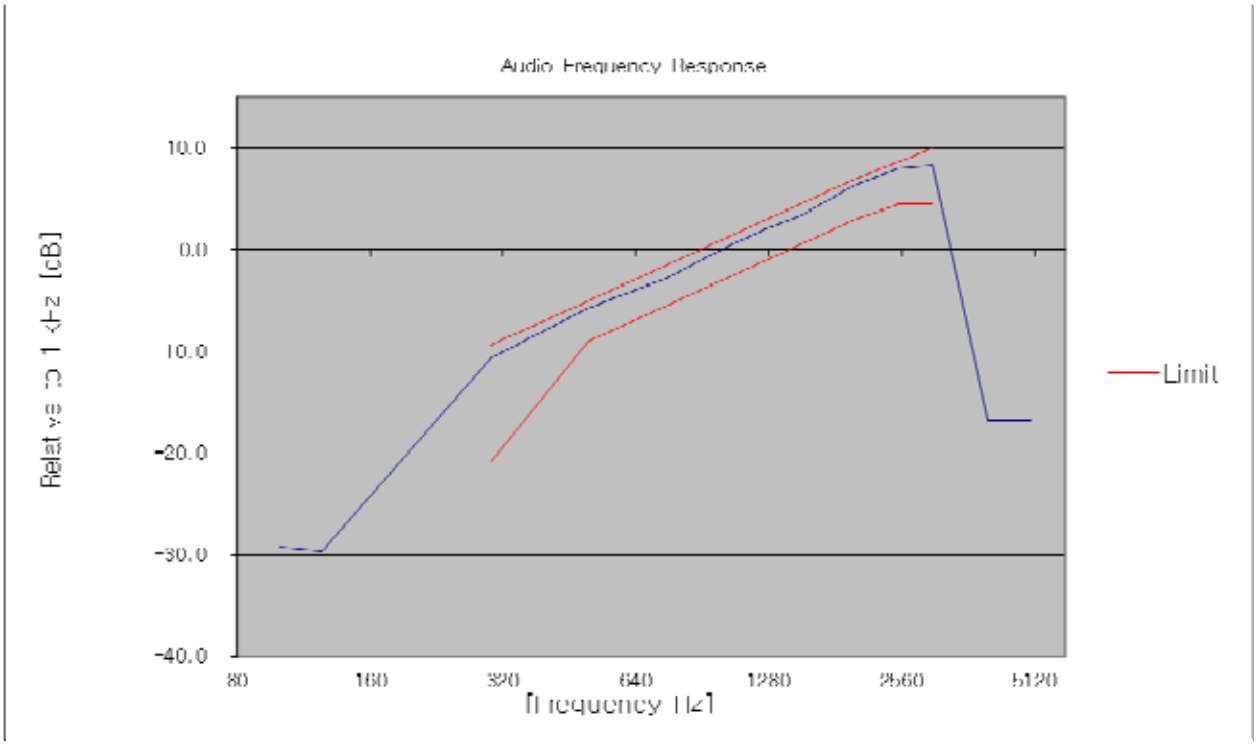


▣ TEST RESULTS For IC

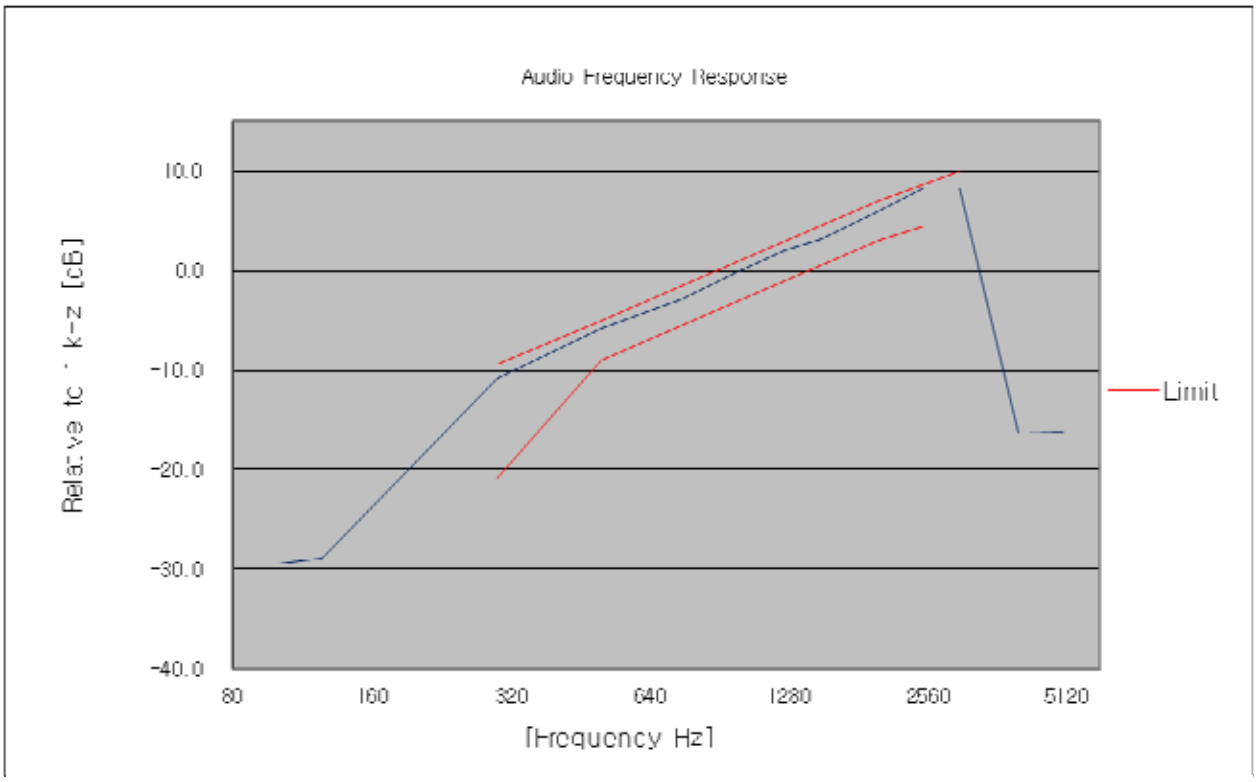
11K0F3E_ 418.05 MHz_HIGH POWER



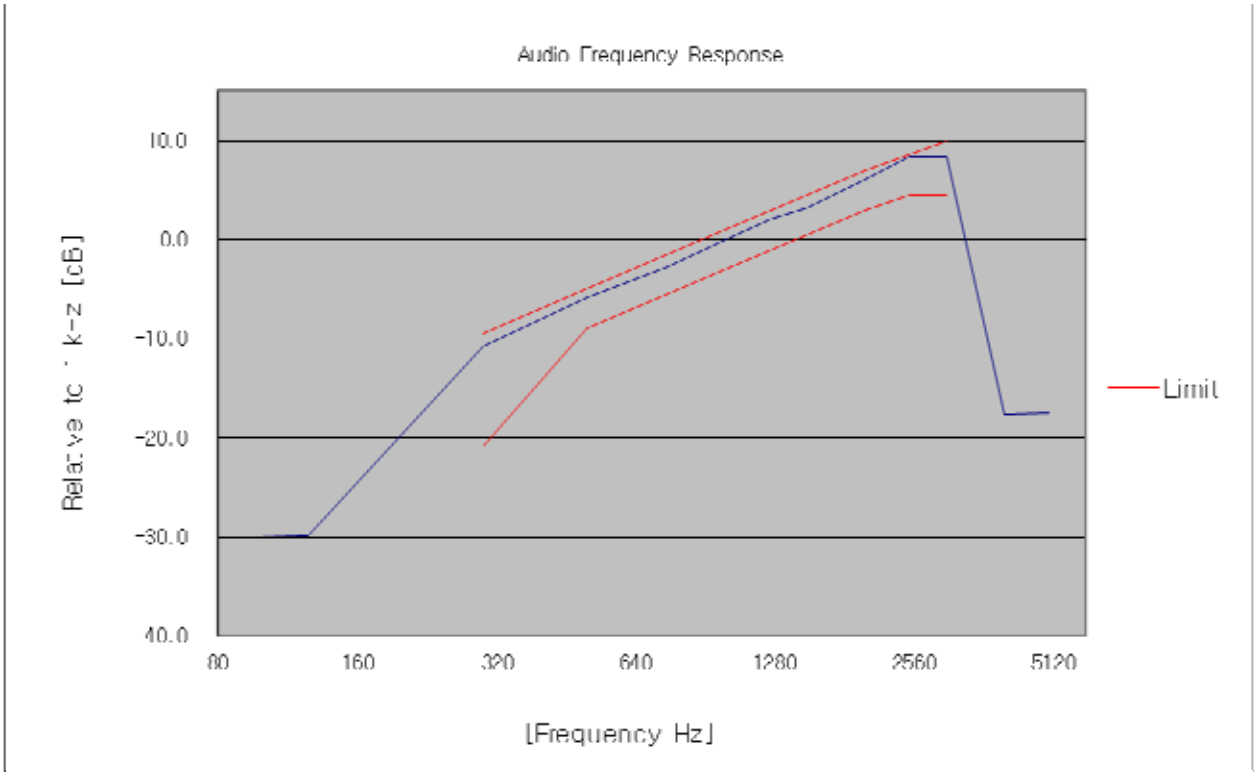
11K0F3E_ 450.05 MHz_HIGH POWER



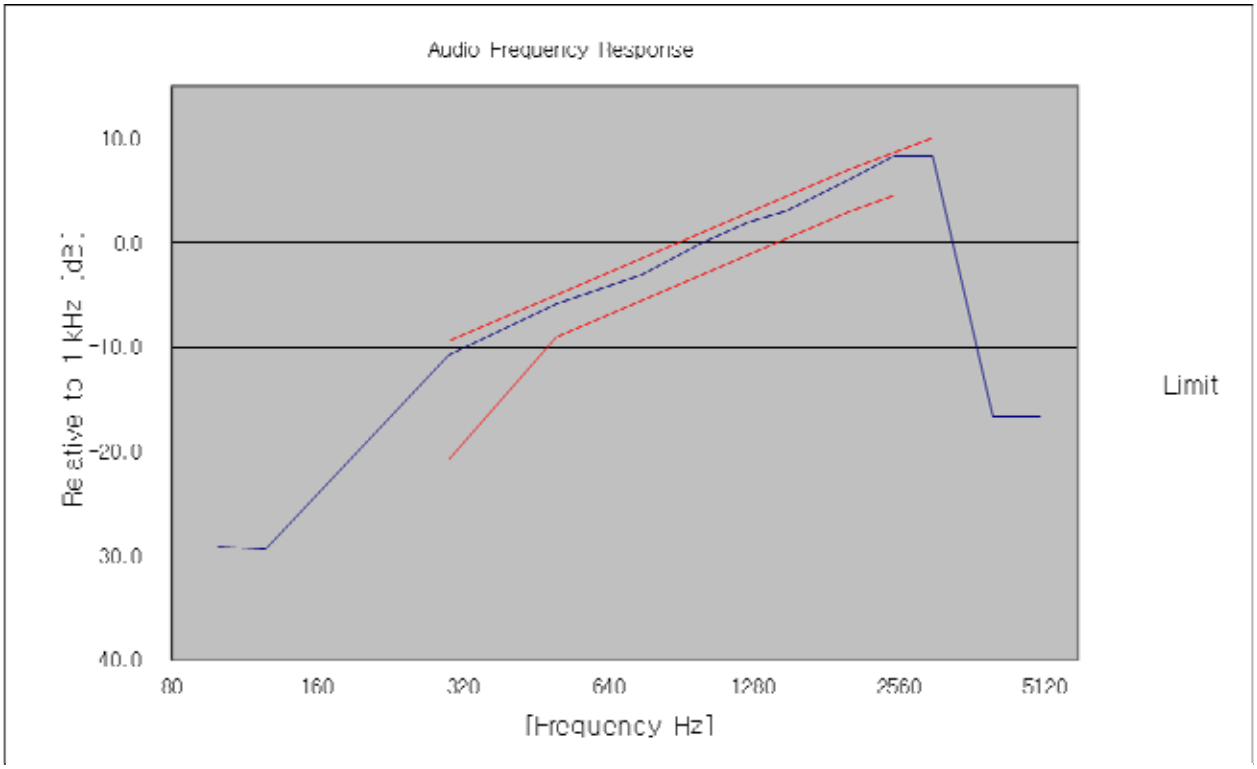
11K0F3E_ 460.05 MHz_HIGH POWER



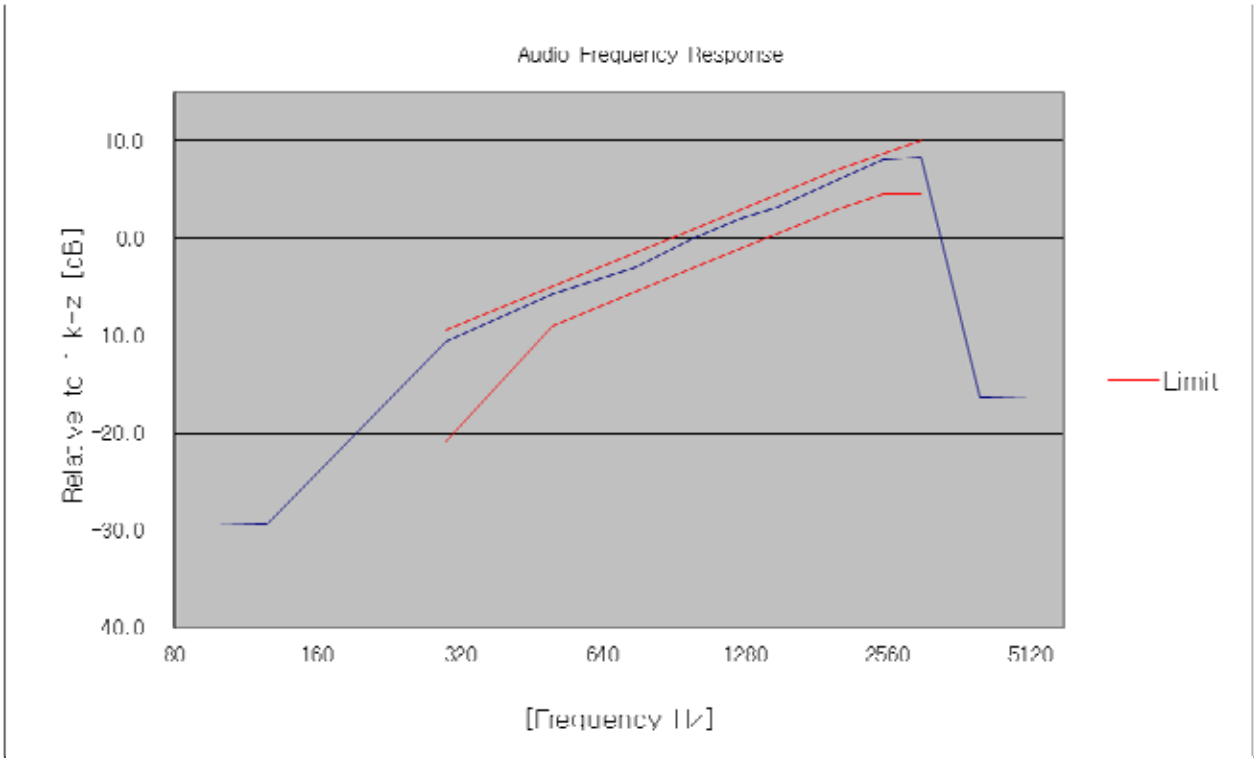
11K0F3E_ 418.05 MHz_LOW POWER



11K0F3E_450.05 MHz_LOW POWER



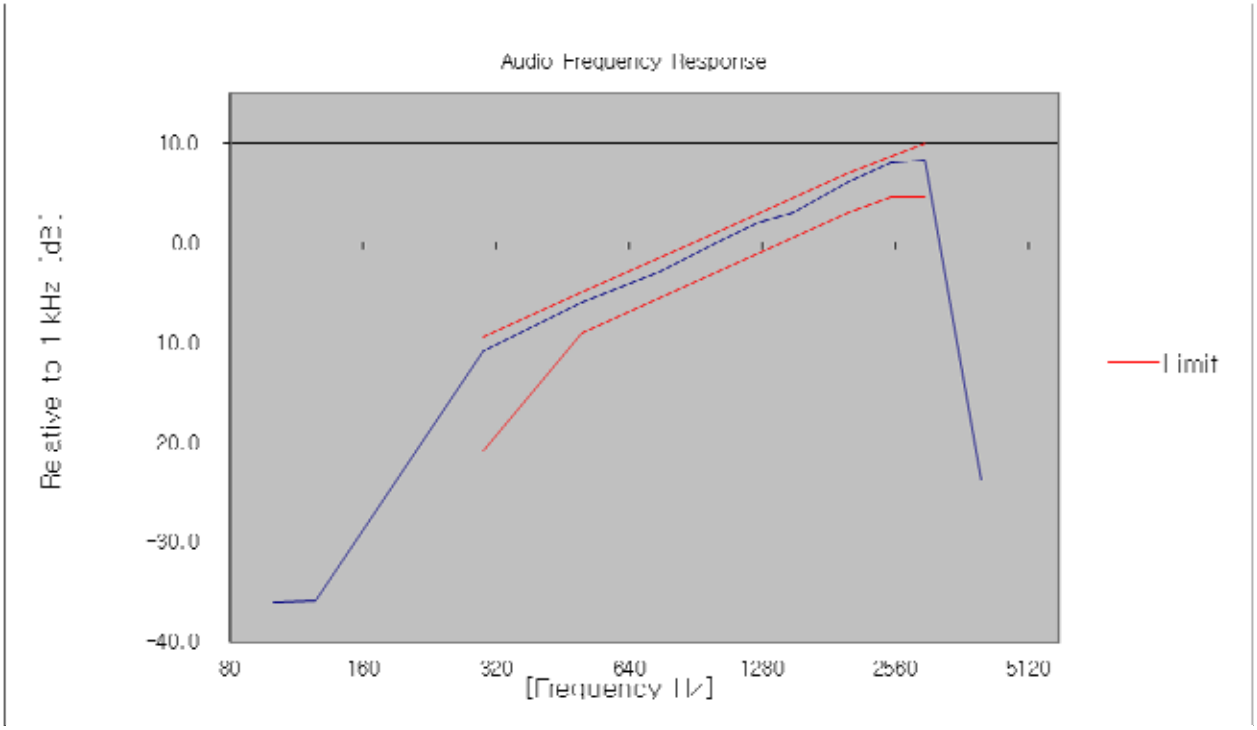
11K0F3E_ 460.05 MHz_LOW POWER



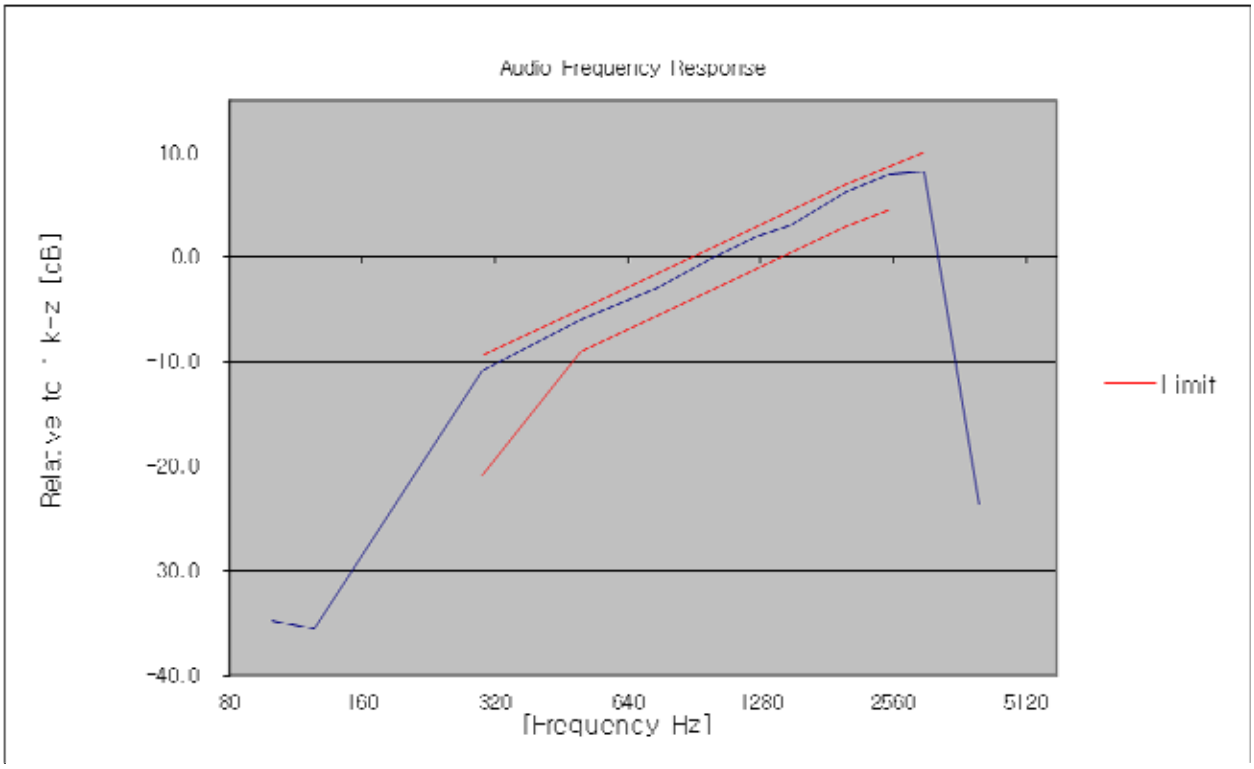
▣ TEST RESULTS

16K0F3E For IC

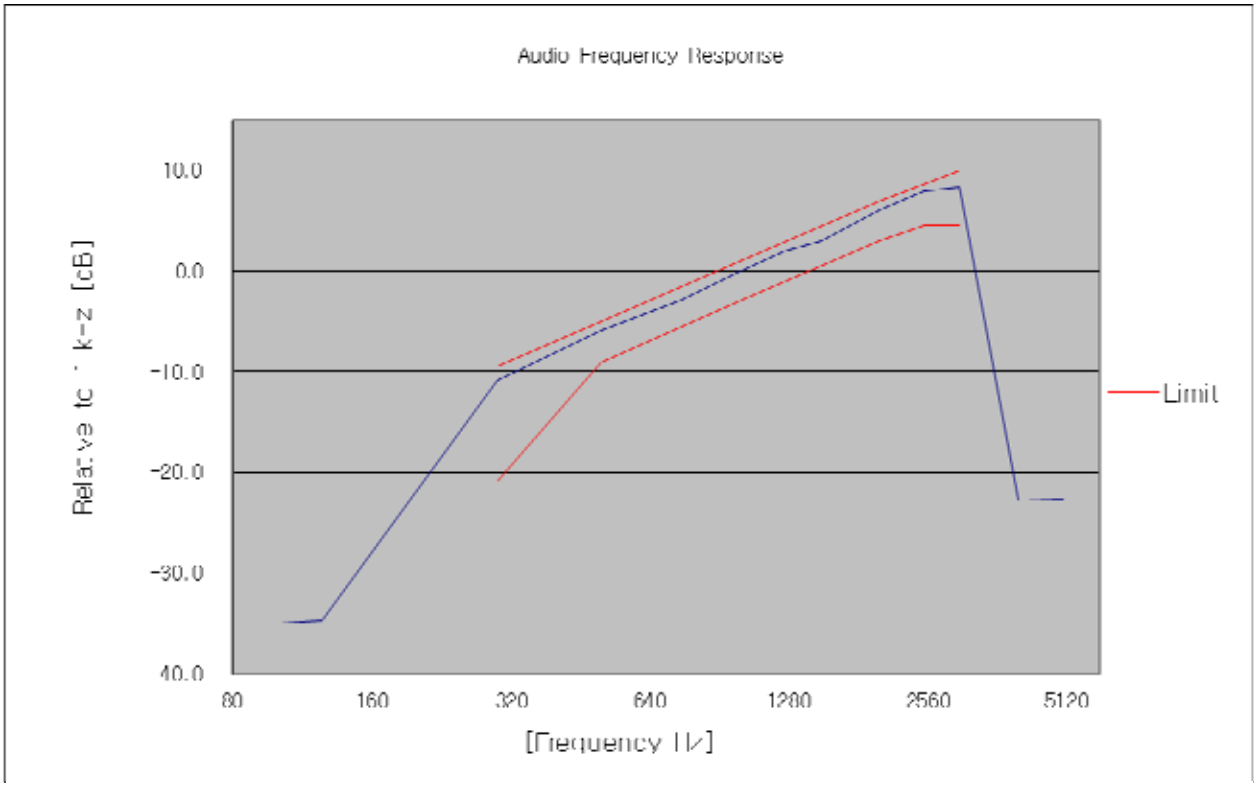
16K0F3E_ 406.15 MHz_HIGH POWER



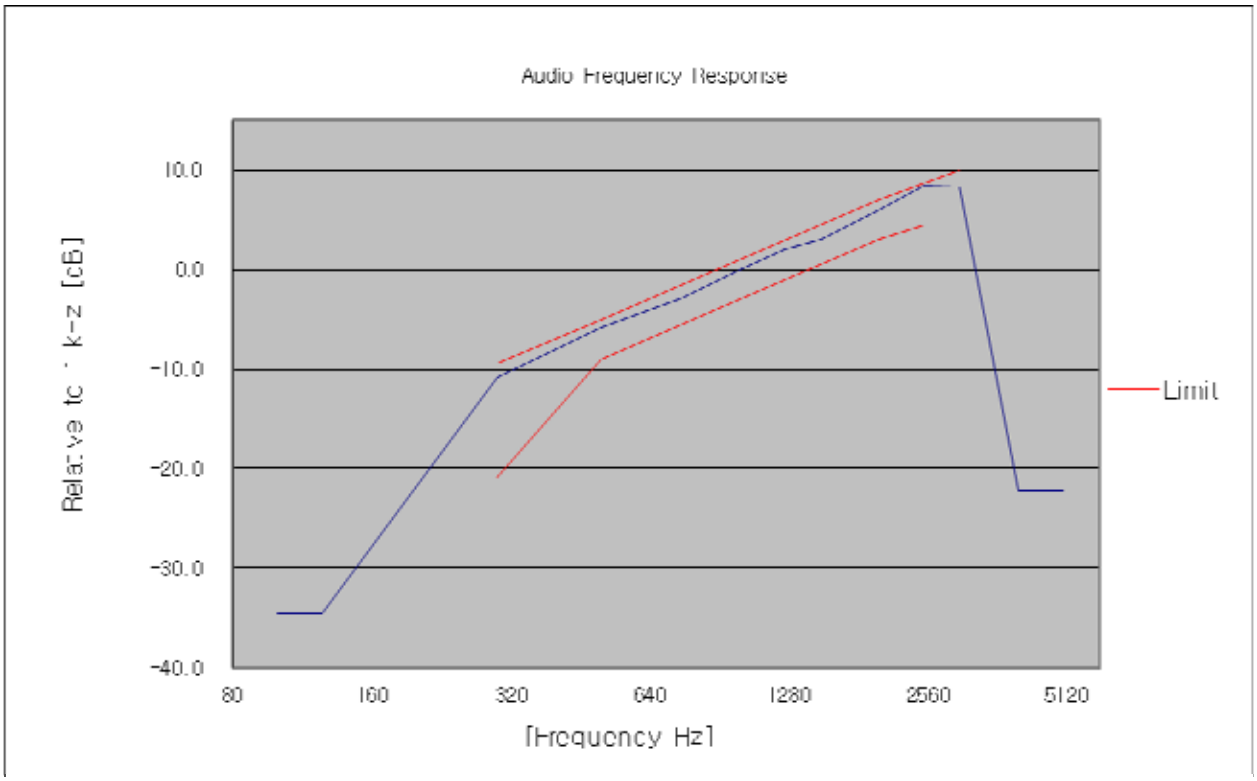
16K0F3E_ 418.05 MHz_HIGH POWER



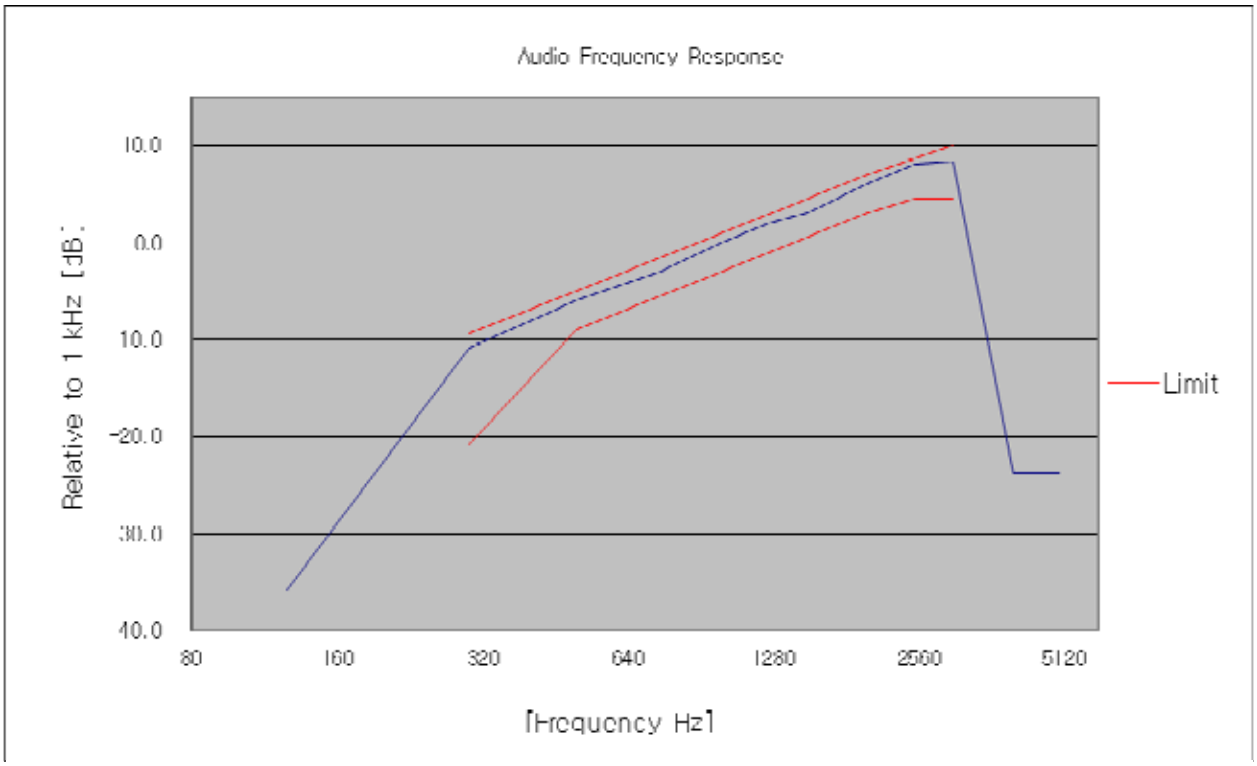
16K0F3E _ 450.05 MHz_HIGH POWER



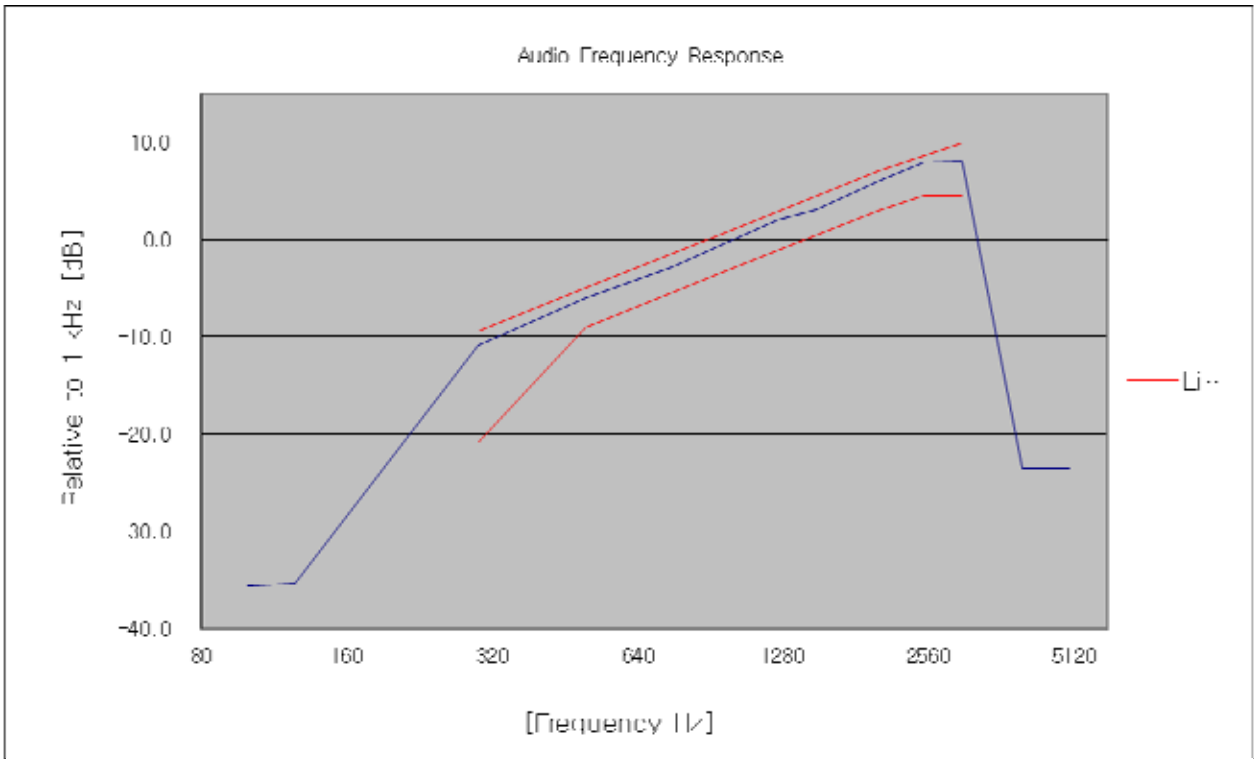
16K0F3E _ 460.05 MHz_HIGH POWER



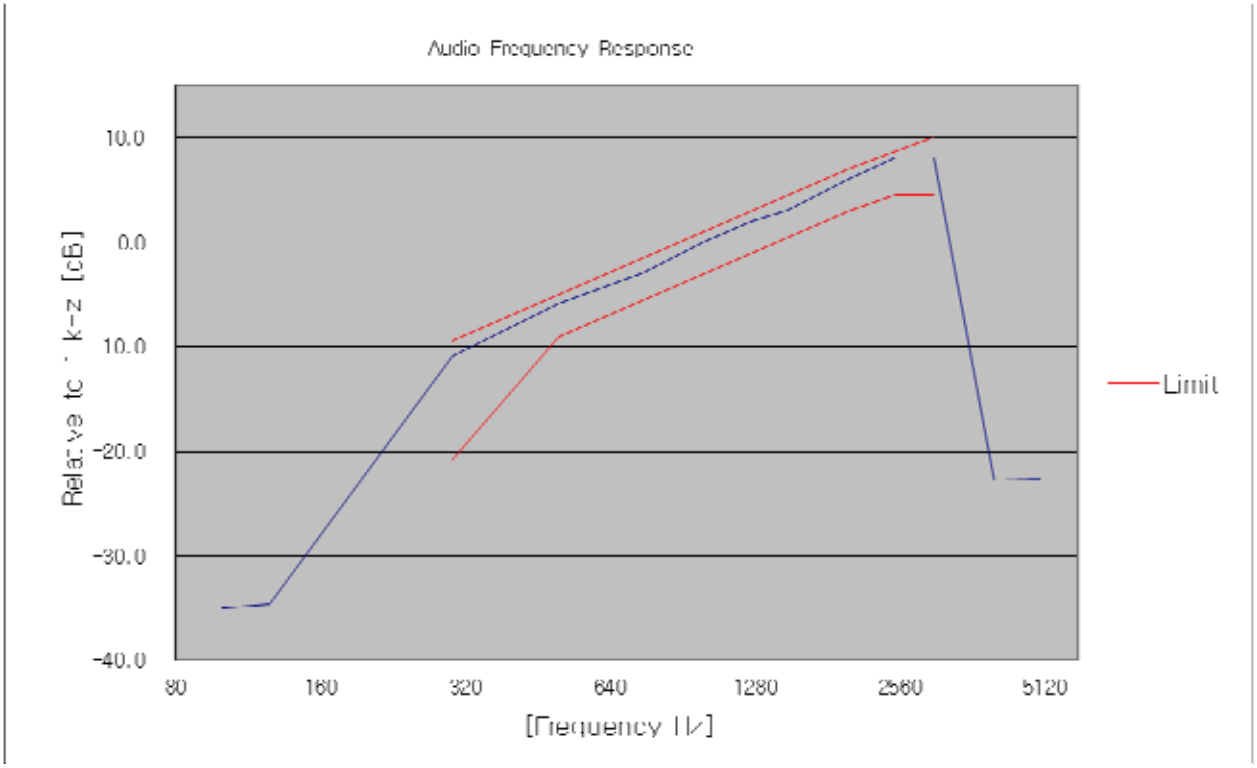
16K0F3E _ 406.15 MHz_LOW POWER



16K0F3E _ 418.05 MHz_LOW POWER

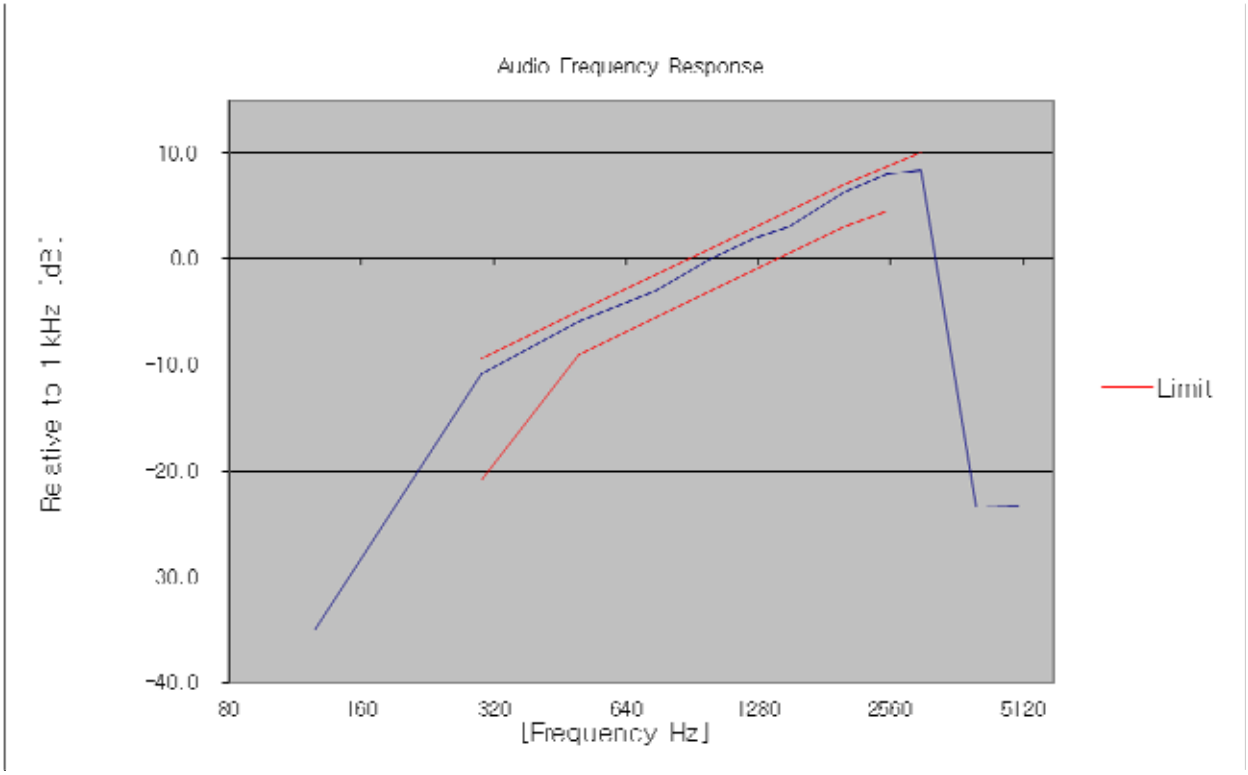


16K0F3E _450.05 MHz_LOW POWER

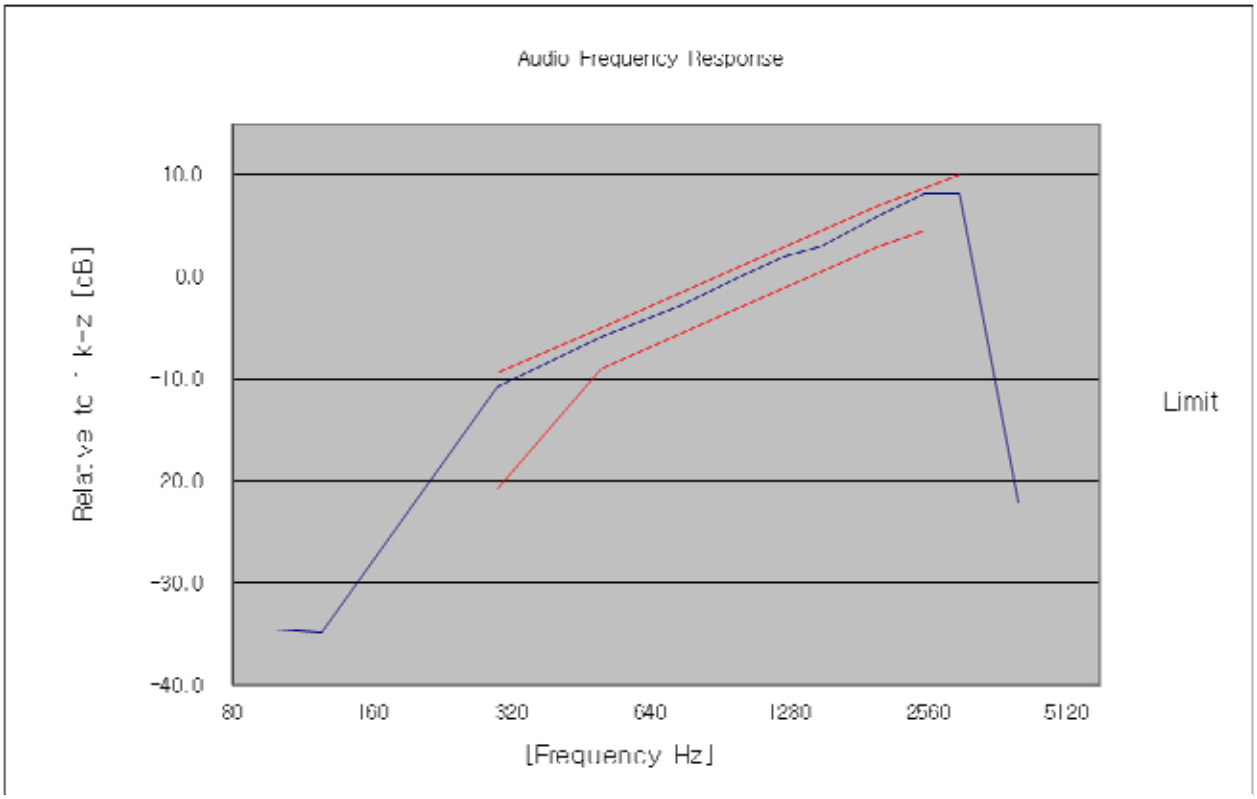


16K0F3E _ 460.05 MHz_LOW POWER

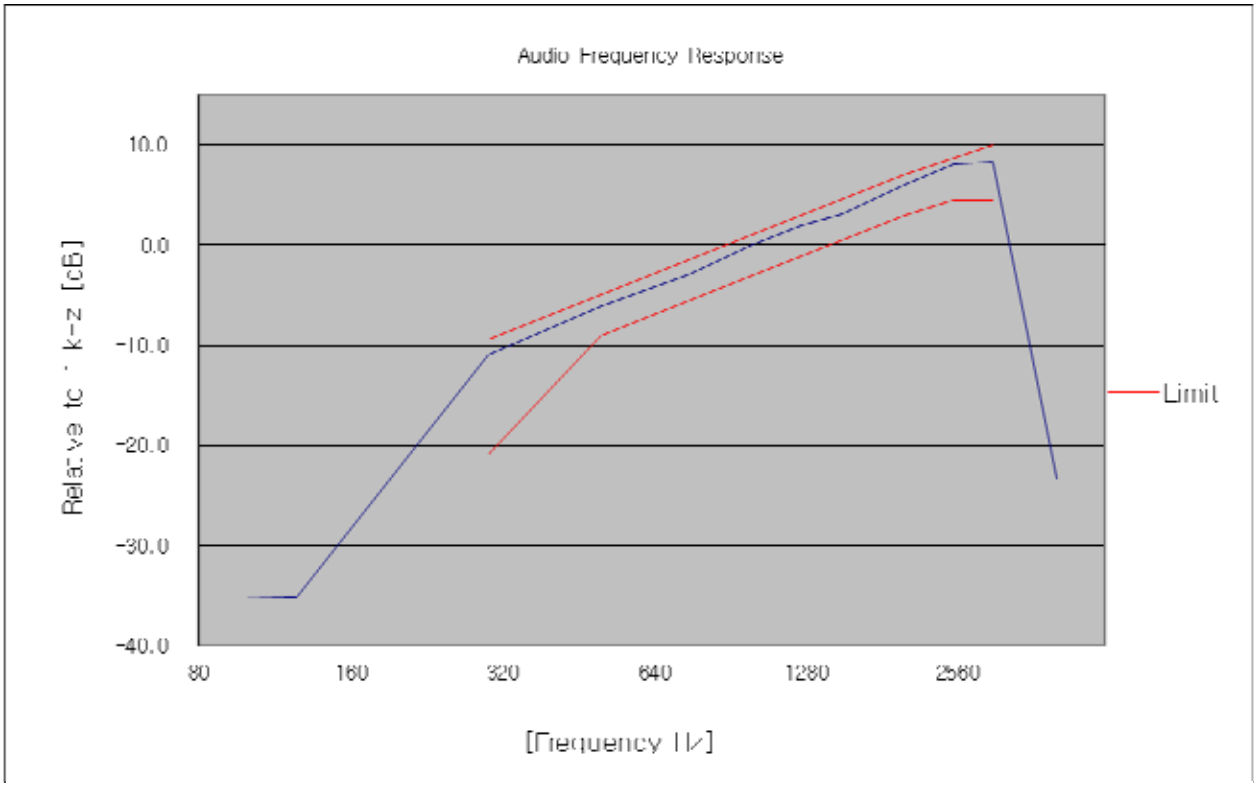
16K0F3E_ 429.95 MHz_HIGH POWER



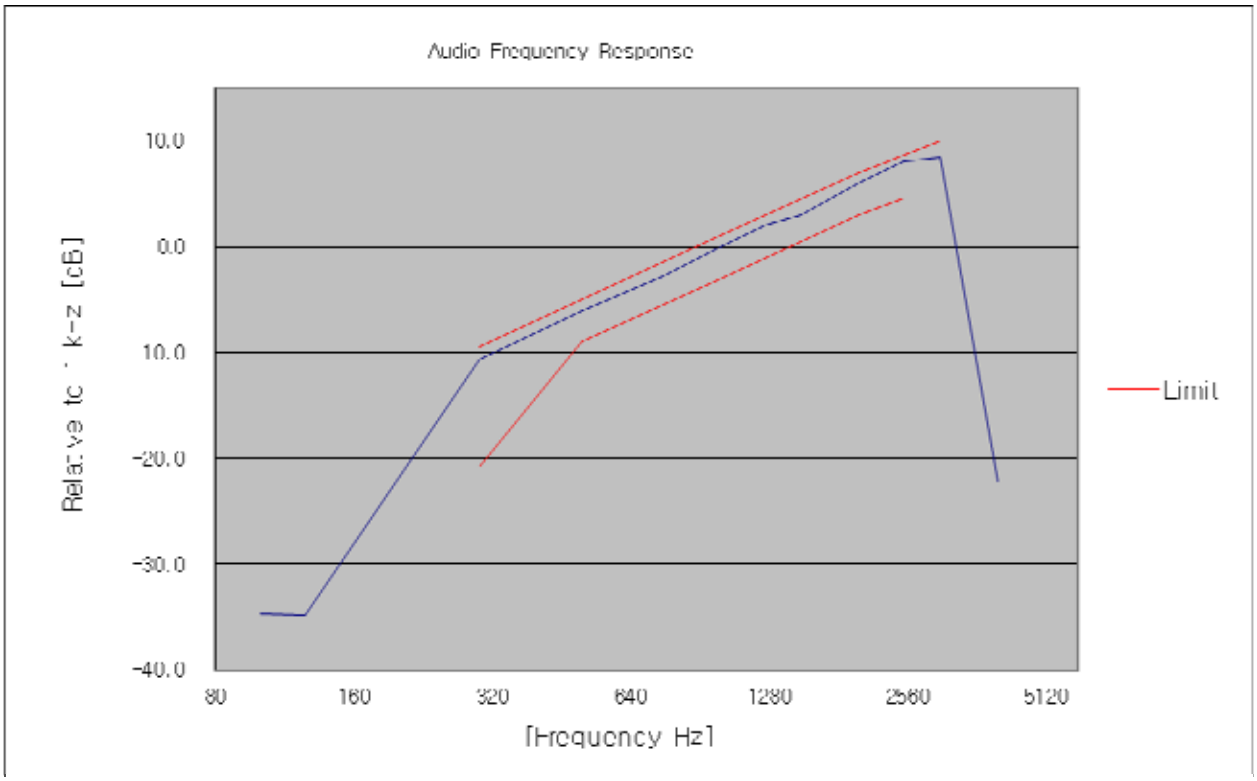
16K0F3E _469.95 MHz_HIGH POWER



16K0F3E _429.95 MHz_LOW POWER



16K0F3E _469.95 MHz_LOW POWER

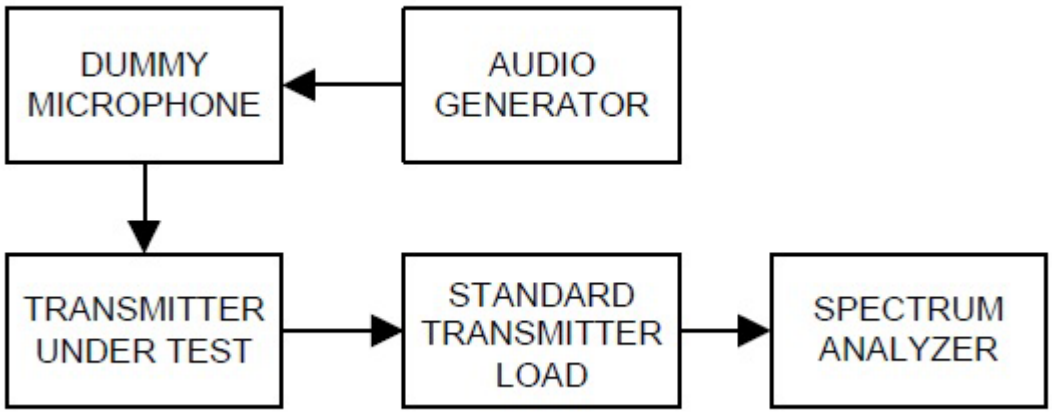


7.6 Emission Mask

▣ Definition

The transmitter sideband spectrum denotes the sideband power produced at a discrete frequency separation from the carrier up to the test bandwidth (see 1.3.4.4) due to all sources of unwanted noise within the transmitter in a modulated condition.

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

According to 2.2.11 in TIA-603-D Standard.

a) Connect the equipment as illustrated. Use the table to determine the spectrum analyzer resolution bandwidth:

Spectrum Analyzer Resolution Bandwidth

Frequency Band (MHz)	Mask for Equipment with Audio Low Pass Filter	Mask for Equipment without Low Pass Filter	Spectrum Analyzer Resolution Bandwidth (Hz)
25-50	B	C	300
72-76	B	C	300
138-174	NTIA	NTIA	300
150-174	B	C	300
150-174	D or E	D or E	100
406-420	NTIA	NTIA	300
421-512	B	C	300
421-512	D or E	D or E	100
806-821/851-866	B or EA	G or EA	300
821-824/866-869	B	H	300
896-901/935-940	I	J	300

b) Adjust the spectrum analyzer for the following settings:

1) Resolution Bandwidth per the above table

2) Video Bandwidth at least 10 times the resolution bandwidth.

3) Sweep Speed slow enough to maintain measurement calibration.

4) Detector Mode = Positive Peak.

5) Span that will allow proper viewing of the test bandwidth (see 1.3.4.4).

c) Set the center frequency of the spectrum analyzer to the assigned transmitter frequency. Key the transmitter, and set the level of the unmodulated carrier to a full scale reference line. This is the 0 dB reference for the measurement.

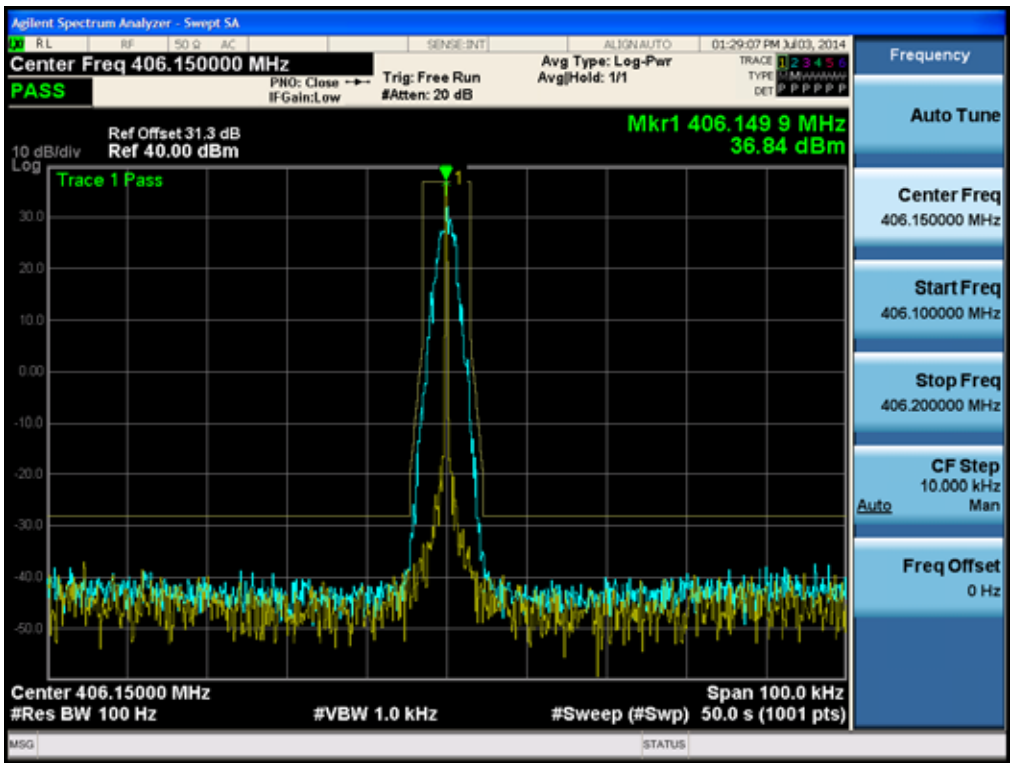
d) Modulate the transmitter with a 2500 Hz sine wave at an input level 16 dB greater than that necessary to produce 50% of rated system deviation. The input level shall be established at the frequency of maximum response of the audio modulating circuit. Transmitters employing digital modulation techniques that bypass the limiter and the audio low-pass filter shall be modulated as specified by the manufacturer.

e) Record the resulting spectrum analyzer presentation of the emission level with an on-line recording device or in a photograph. It is recommended that the emission limit (as given in 3.2.11) be drawn on the plotted graph or photograph. The spectrum analyzer presentation is the sideband spectrum.

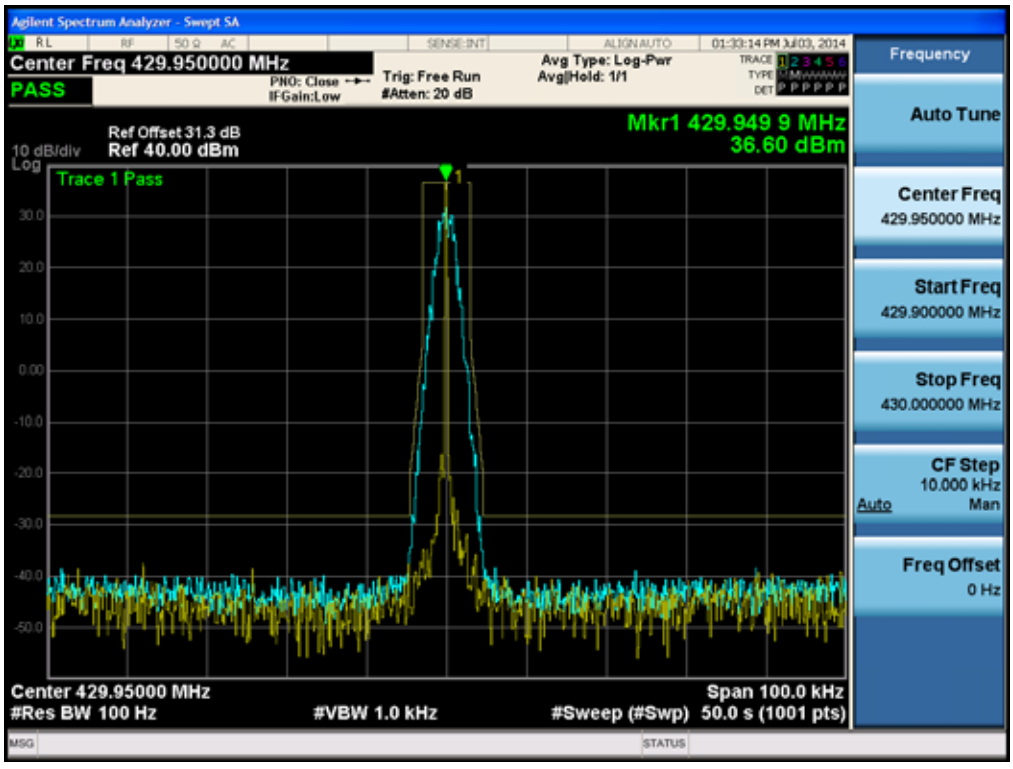
▣ TEST RESULTS

4K00F1E,4K00F1D,4K00F7W for FCC

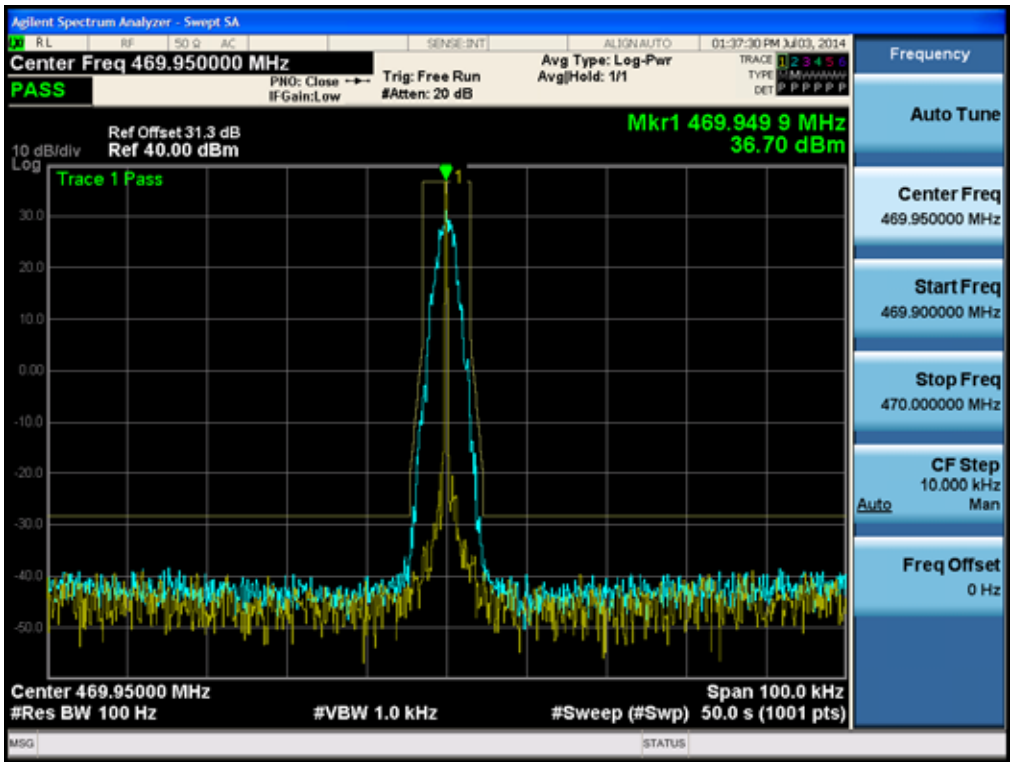
4K00F1E,4K00F1D,4K00F7W_406.15 MHz_HIGH POWER



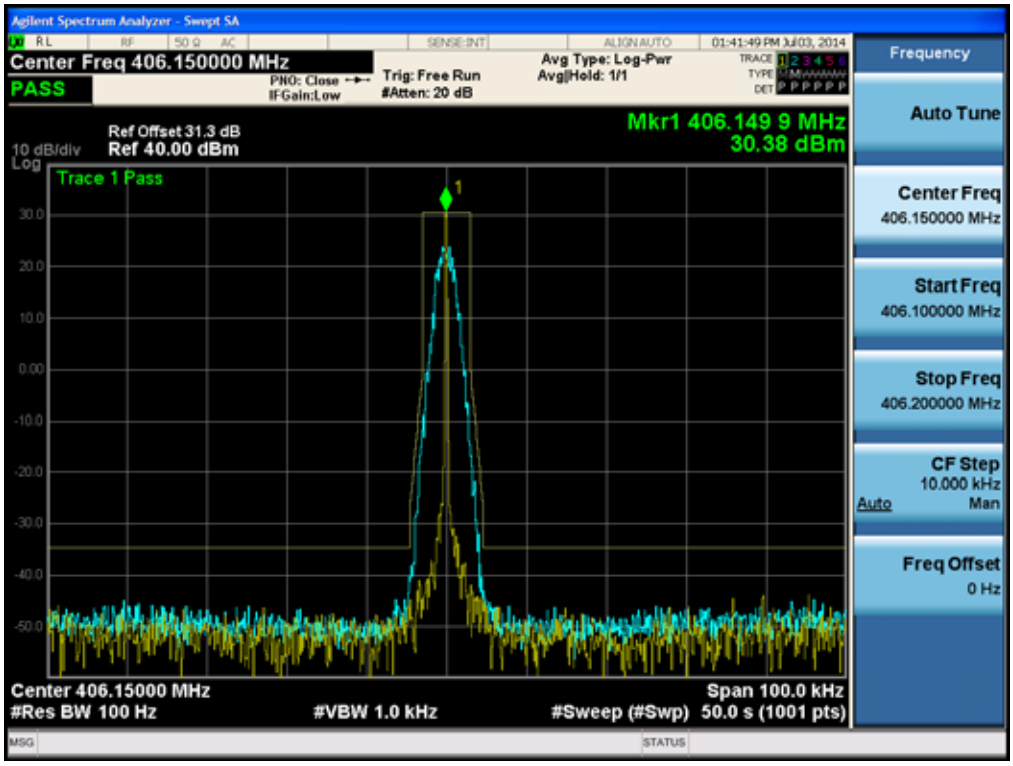
4K00F1E,4K00F1D,4K00F7W_429.95 MHz_HIGH POWER



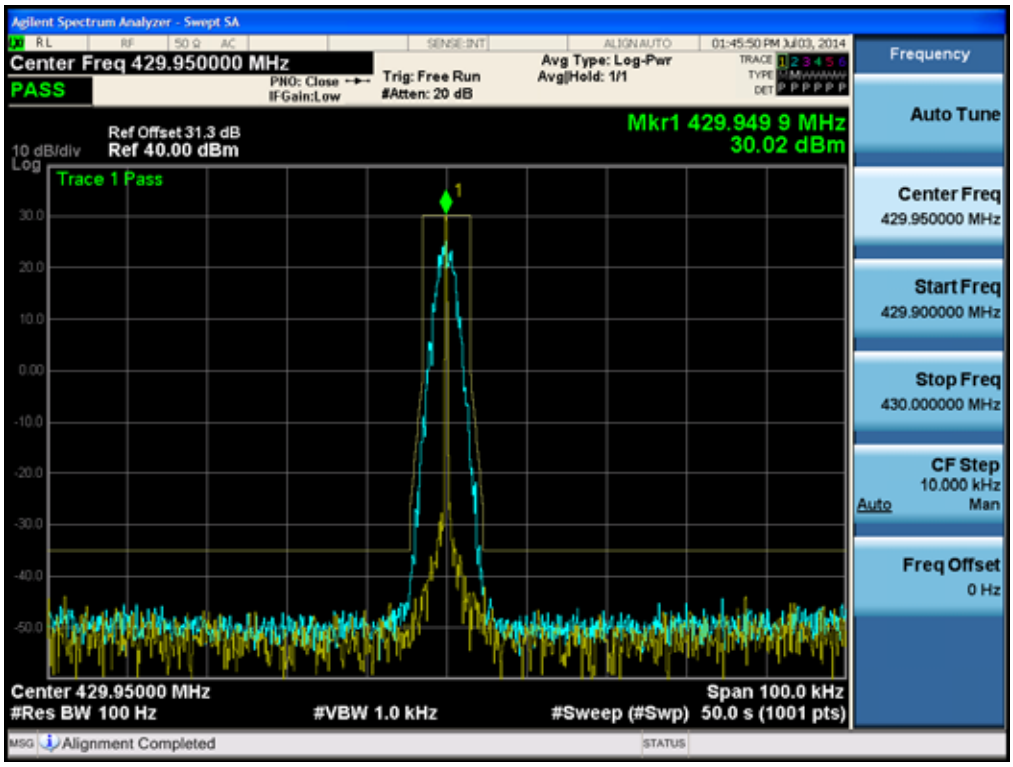
4K00F1E,4K00F1D,4K00F7W_469.95 MHz_HIGH POWER



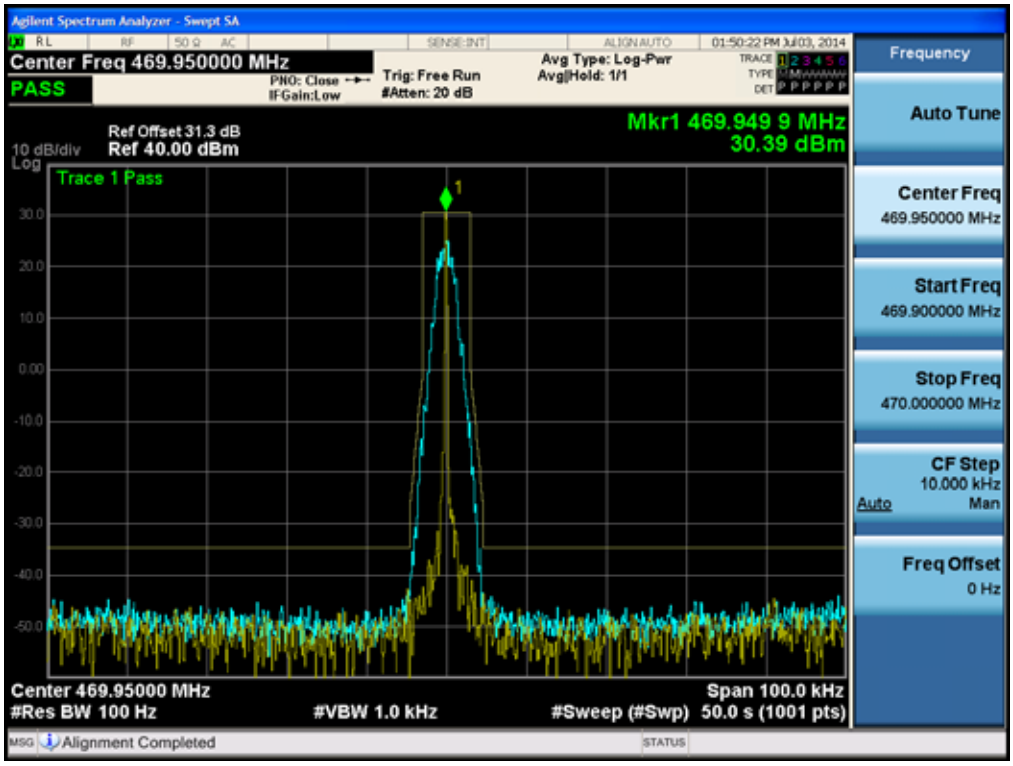
4K00F1E,4K00F1D,4K00F7W _406.15 MHz_LOW POWER



4K00F1E,4K00F1D,4K00F7W _429.95 MHz_LOW POWER



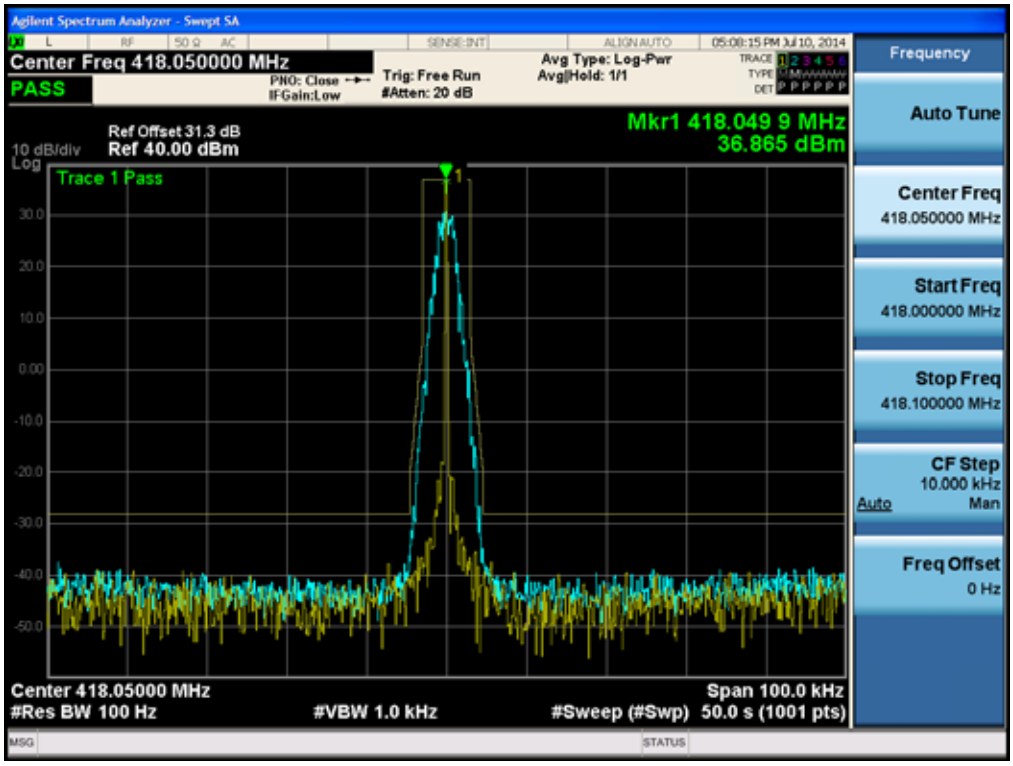
4K00F1E,4K00F1D,4K00F7W _469.95 MHz_LOW POWER



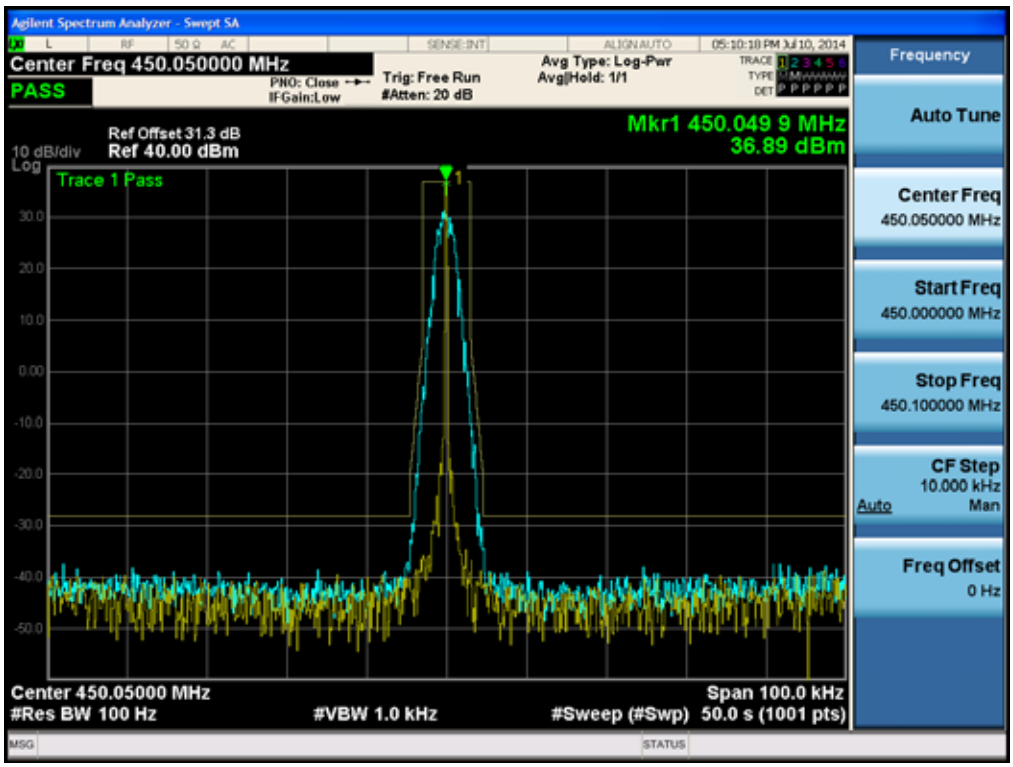
▣ TEST RESULTS

4K00F1E,4K00F1D,4K00F7W for IC

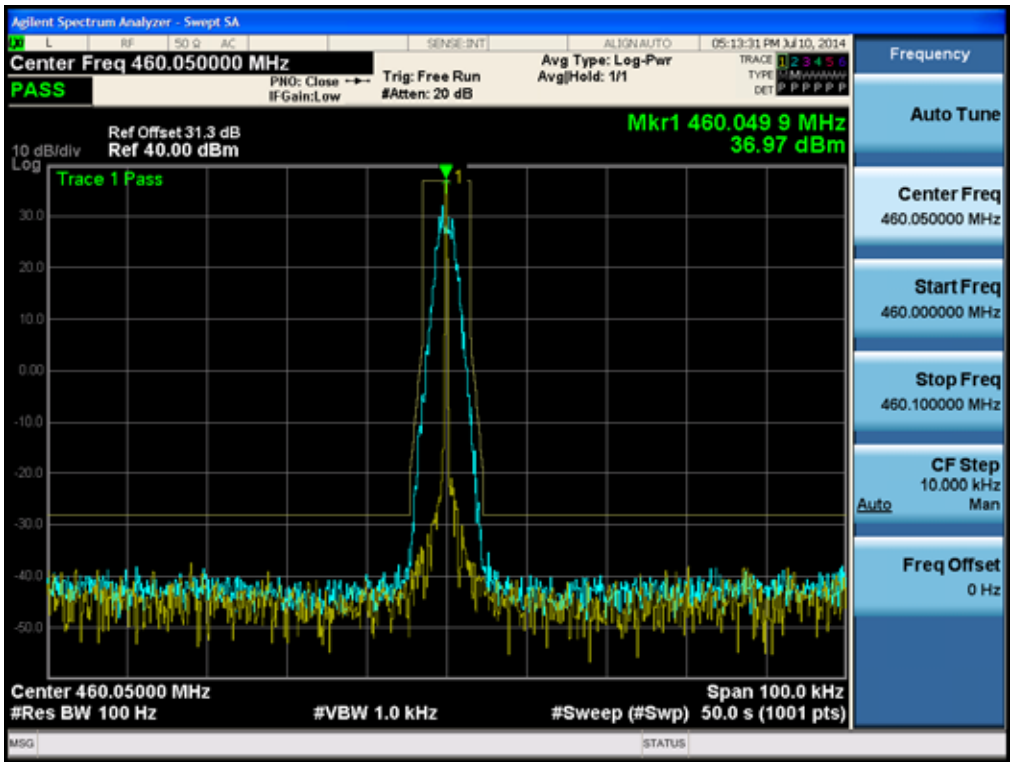
4K00F1E,4K00F1D,4K00F7W_418.05 MHz_HIGH POWER



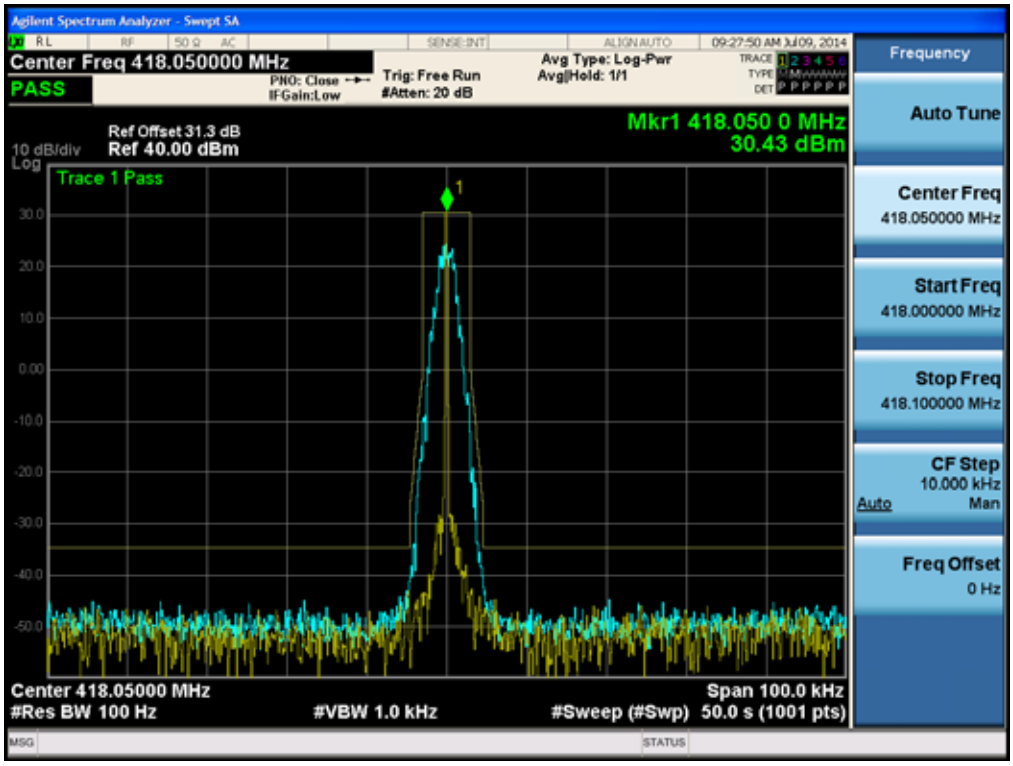
4K00F1E,4K00F1D,4K00F7W_450.05 MHz_HIGH POWER



4K00F1E,4K00F1D,4K00F7W_460.05 MHz_HIGH POWER



4K00F1E,4K00F1D,4K00F7W _418.05 MHz_LOW POWER



4K00F1E,4K00F1D,4K00F7W _450.05 MHz_LOW POWER