

March 31, 2000

Frank Coperich

Fcoperic@fcc.gov

Correspondence Reference Number : 12978

From : Leon Kogan, JMR Electronics Inc.

Applicant : Listen Technologies Corporation

FCC ID: OMD700-216

731 Confirmation Number : EA96005

Dear Mr. Coperich:

Below you will find the information that was requested in your letter on March 23, 2000. All items concur with the numbered questions in your past e-mail.

ITEM 2:

: Please list actual ERP on FCC Form 731 and provide a justification for this value

For determination of the ERP the field strength produced by LT700 unit with its supplied antenna, was re-measured for 1K Standard channel and 2K extra band channel. Then by substitution method the ERP was determined. For substitution method "Tunable Dipole Antenna, model # FCC3" with RG-58U cable, L=7.8 m and "HP 8648A Signal Generator" were used.

A. The following are the results of the actual field strength readings

	The field strength Peak value
Standard channel 1K	82.34 dBuV
Extra band channel 2K	83.19 dBuV

B The following are the results of the actual HP8648A Signal generator readings to produce the same field strength readings as in the table above.

	HP8648A readings	The field strength, Peak value
Standard channel 1K	80.96 dBuV / -26.04 dBm	82.34 dBuV
Extra band channel 2K	80.81 dBuV / -26.19 dBm	83.19 dBuV

C. The equation for ERP determination is

$$\text{ERP} = \text{P} + \text{G} - \text{L} \quad \text{where}$$

P is a power into dipole (reading of the HP8648A);

G is the relative gain of the half-wave dipole antenna which is equal 2.68 dB ;

L is the losses of the RG-58U cable which is equal 1.3 dB.

The following are the results of the ERP :

	ERP value
Standard channel 1K	0.00342 W / -24.66 dBm
Extra band channel 2K	0.00330 W / -24.81 dBm

ITEM 3:

: Please provide modulation limiting data, which would be plots of the transmitter deviation as a function of input level – done at several frequencies over the audio modulating range.

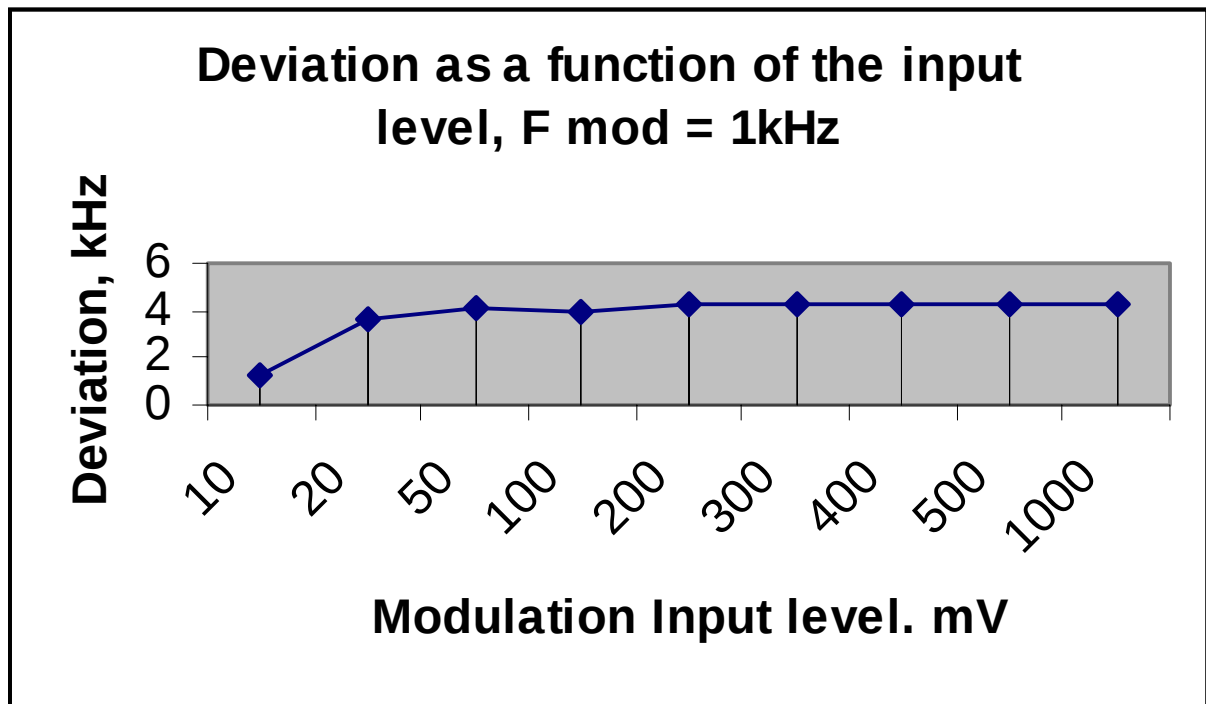
The following are a series of data/plots showing the system deviation as the input level of the modulation frequency changes.

MODULATION CHARACTERISTICS were tested on the Standard band channel 1K for modulation frequencies 1kHz, 3kHz, 5kHz and Extra band channel 2K for modulation frequencies 1kHz, 3kHz, 5kHz, 7kHz and 9kHz..

1.0 Channel 1K, $F_c = 216.512496$ MHz, RBW = 3 kHz

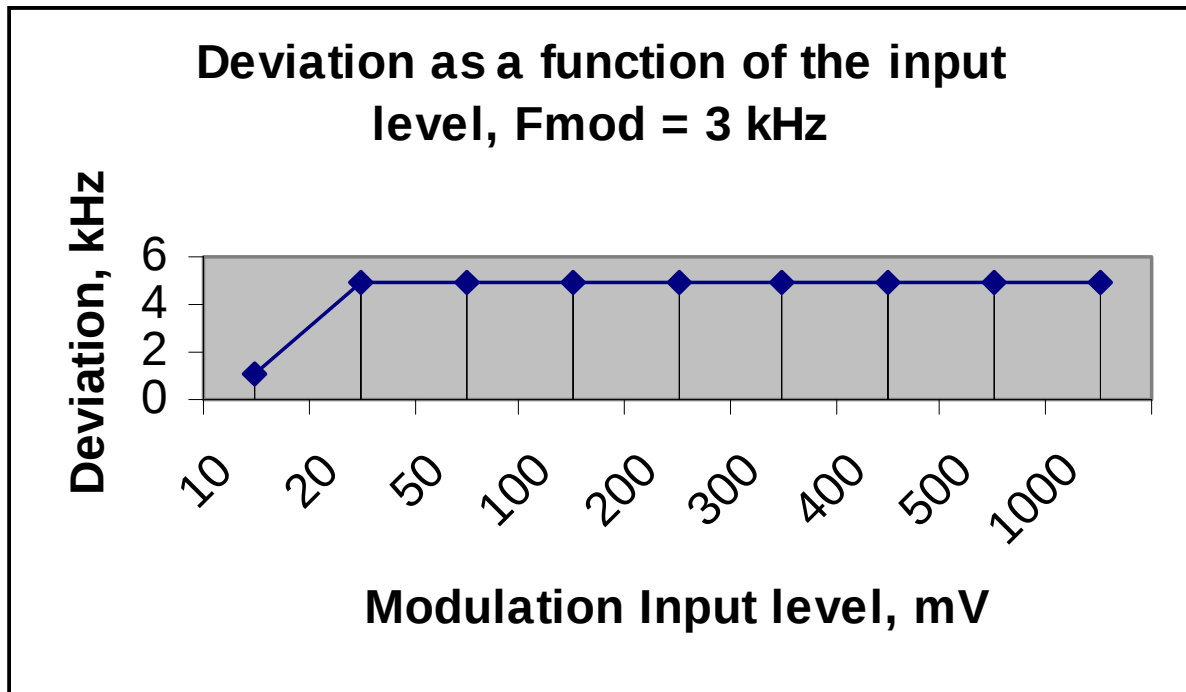
1.1 F mod = 1 kHz

The modulation Amplitude mV	Tx frequency F_{99} at 99% level of F_c peak MHz	Deviation $F_c - F_{99}$ kHz	The modulation Frequency F_{mod} kHz
10	216.511184	1.312	1
20	216.508840	3.656	1
50	216.508464	4.032	1
100	216.508496	4.000	1
200	216.508248	4.248	1
300	216.508248	4.248	1
400	216.508248	4.248	1
500	216.508248	4.248	1
1000	216.508248	4.248	1



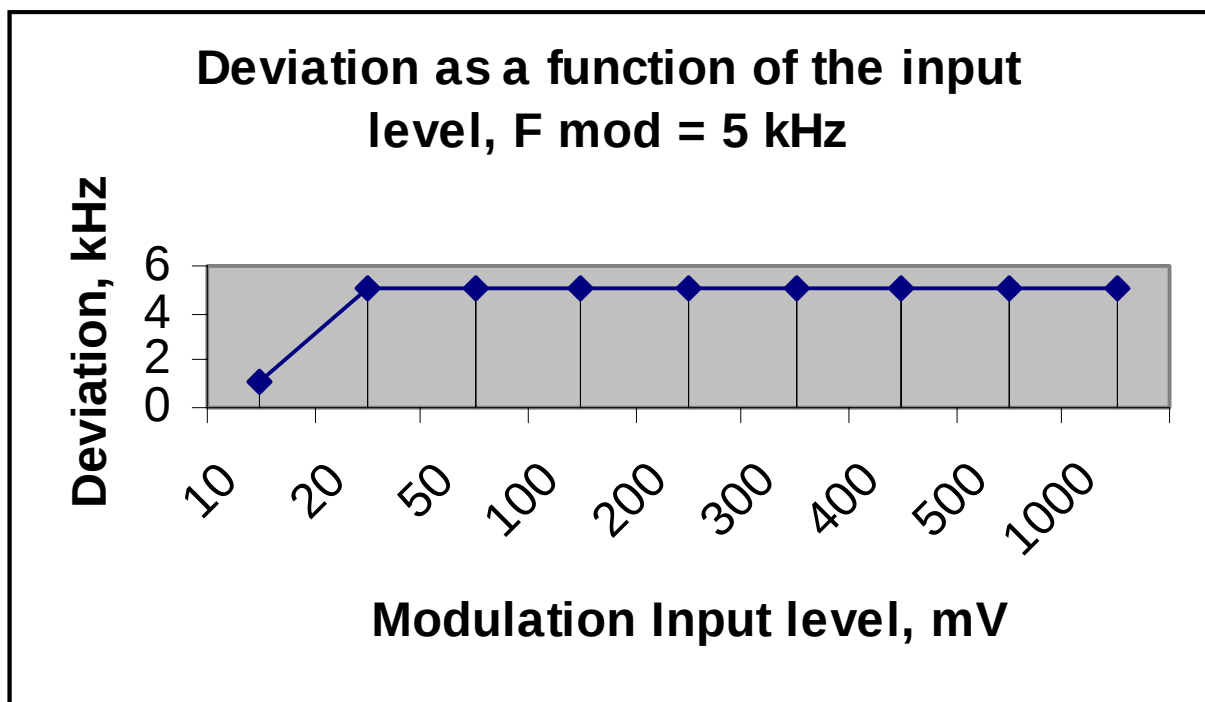
1.2 F mod = 3 kHz

The modulation Amplitude mV	Tx frequency F ₉₉ at 99% level of Fc peak MHz	Deviation Fc – F ₉₉ kHz	The modulation Frequency kHz
10	216.511496	1.000	3
20	216.506560	5.936	3
50	216.506560	5.936	3
100	216.506560	5.936	3
200	216.506560	5.936	3
300	216.506560	5.936	3
400	216.506560	5.936	3
500	216.506560	5.936	3
1000	216.506560	5.936	3



1.3 F mod = 5 kHz

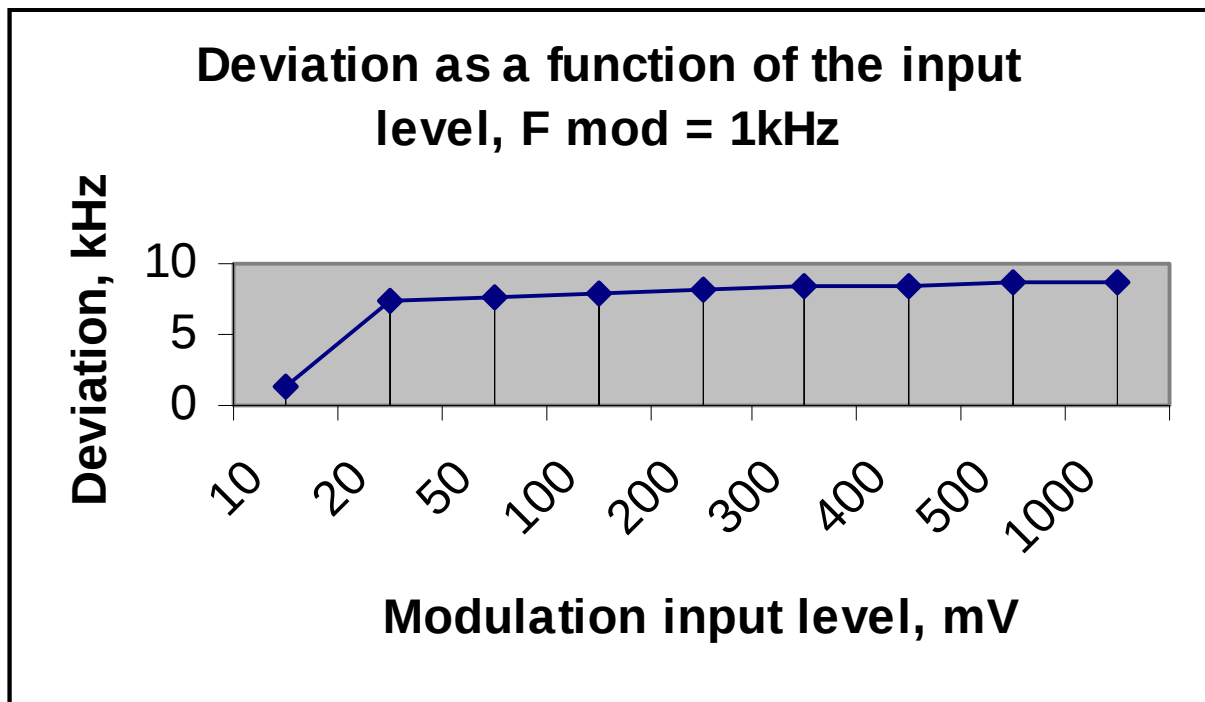
The modulation Amplitude MV	Tx frequency F ₉₉ at 99% level of Fc peak MHz	Deviation F _c – F ₉₉ kHz	The modulation Frequency kHz
10	216.511432	1.064	5
20	216.507504	4.992	5
50	216.507504	4.992	5
100	216.507504	4.992	5
200	216.507504	4.992	5
300	216.507504	4.992	5
400	216.507504	4.992	5
500	216.507504	4.992	5
1000	216.507504	4.992	5



2.0 Channel 2K, $F_c = 216.524496$ MHz, RBW = 3 kHz

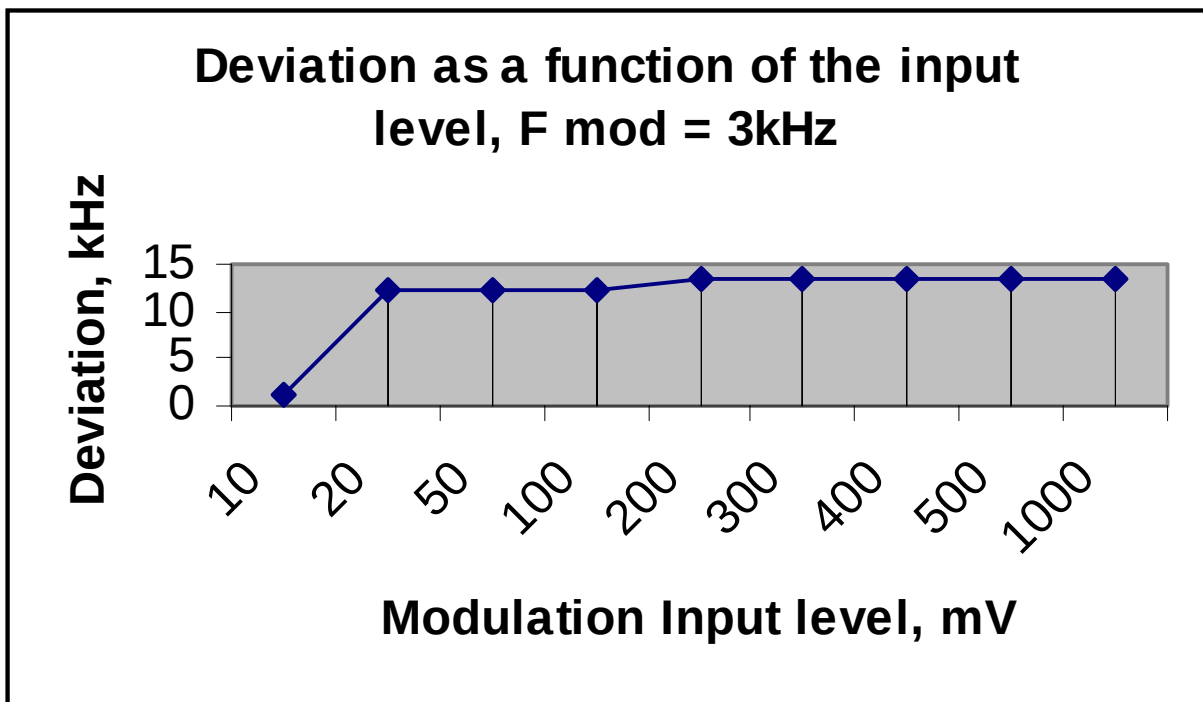
2.1 F mod = 1 kHz

The modulation Amplitude mV	Tx frequency F_{99} at 99% level of F_c peak MHz	Deviation $F_c - F_{99}$ kHz	The modulation Frequency kHz
10	216.523272	1.224	1
20	216.517176	7.320	1
50	216.516744	7.752	1
100	216.516680	7.816	1
200	216.516432	8.064	1
300	216.516184	8.312	1
400	216.516184	8.312	1
500	216.515937	8.559	1
1000	216.515936	8.560	1



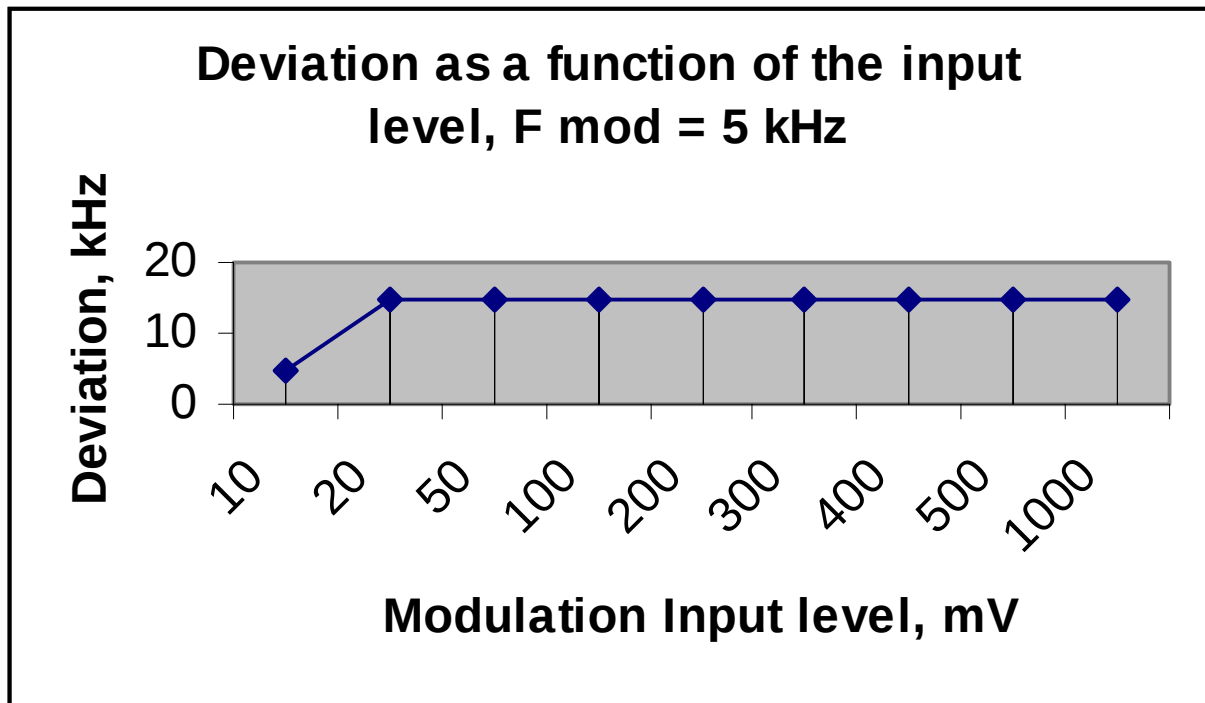
2.2 $F_{\text{mod}} = 3 \text{ kHz}$

The modulation Amplitude mV	Tx frequency F_{99} at 99% level of F_c peak MHz	Deviation $F_c - F_{99}$ kHz	The modulation Frequency kHz
10	216.523184	1.312	3
20	216.512432	12.064	3
50	216.512312	12.184	3
100	216.512432	12.064	3
200	216.511120	13.376	3
300	216.511184	13.312	3
400	216.510992	13.504	3
500	216.511056	13.440	3
1000	216.511056	13.440	3



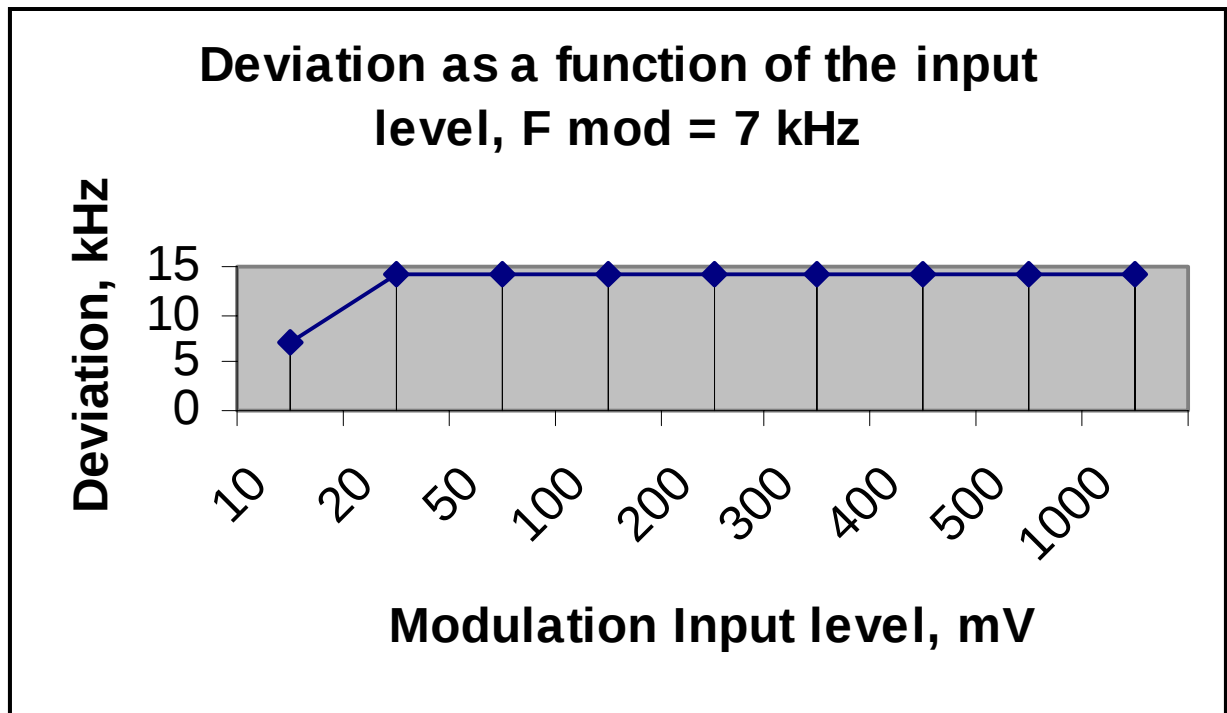
2.3 F mod = 5 kHz

The modulation Amplitude mV	Tx frequency F ₉₉ at 99% level of F _c peak MHz	Deviation F _c – F ₉₉ kHz	The modulation Frequency kHz
10	216.519720	4.776	5
20	216.509592	14.904	5
50	216.509688	14.808	5
100	216.509592	14.904	5
200	216.509688	14.808	5
300	216.509688	14.808	5
400	216.509688	14.808	5
500	216.509688	14.808	5
1000	216.509688	14.808	5



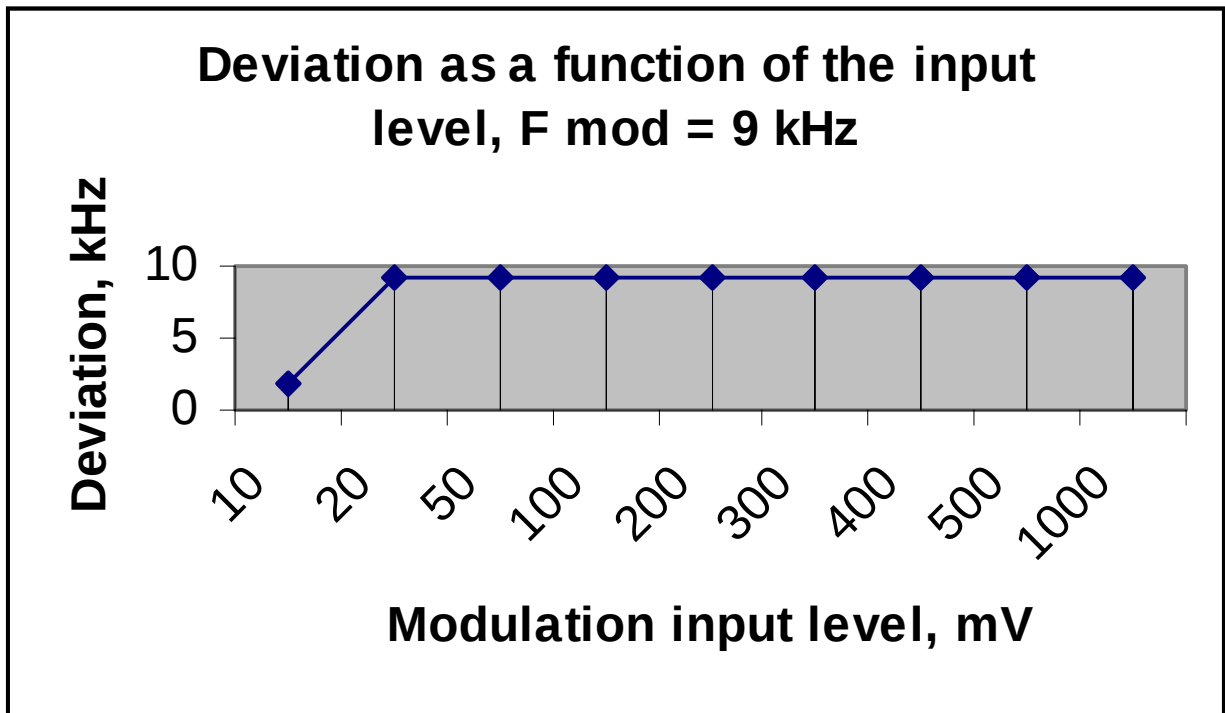
2.4 F mod = 7 kHz

The modulation Amplitude MV	Tx frequency F ₉₉ at 99% level of F _c peak MHz	Deviation F _c – F ₉₉ KHz	The modulation Frequency kHz
10	216.517560	6.936	7
20	216.510432	14.064	7
50	216.510432	14.064	7
100	216.510432	14.064	7
200	216.510432	14.064	7
300	216.510432	14.064	7
400	216.510432	14.064	7
500	216.510432	14.064	7
1000	216.510432	14.064	7



2.5 F mod = 9 kHz

The modulation Amplitude mV	Tx frequency F ₉₉ at 99% level of F _c peak MHz	Deviation F _c – F ₉₉ kHz	The modulation Frequency kHz
10	216.522616	1.880	9
20	216.515400	9.096	9
50	216.515400	9.096	9
100	216.515400	9.096	9
200	216.515400	9.096	9
300	216.515400	9.096	9
400	216.515400	9.096	9
500	216.515400	9.096	9
1000	216.515400	9.096	9



I hope these answers are sufficient. If there are any further questions, please feel free to email me or call me back .

Sincerely,

Leon Kogan

Technical Director
JMR Compliance Engineering
Voice: 818.739-1122
Fax: 818.993-9173
E-mail: LeonK@jmr.com