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Reference FCC ID: FBR-RSPDL800A

Thank you for your fax of 1/15/97. We would like to respond to your inquiries as follows:

- (1) The user's manual did not provide much information that would indicate why the product should qualify for Part 74 licensing. We would like to supplement that information with the following:

The customers for the Reply®DL keypad (FCC ID: FBR-RSPDL800A) will be businesses and educational institutions that provide audio and video (television) programming from a host site to a plurality of remote sites. This programming is typically distributed by cable or by satellite broadcasting to the remote sites. The inclusion of the wireless microphone in the Reply®DL keypad can provide the ability for such productions as referred to in 74.831 to "transmit comments, interviews, and reports from the scene of a remote broadcast." This is done from the Reply®DL keypad at a remote site with its built-in 800 MHz wireless microphone transmitting to an 800 MHz receiver in the Reply DL base unit. The base unit passes the audio to the host site via an analog phone line connection for broadcast so all sites watching the broadcast can hear the participant's comment or question.

- (2) If the description of the test procedure for obtaining the audio frequency response of the unit had been written a little differently, I think some confusion could have been avoided. More specifically, the procedure was as follows:

The microphone element is mounted inside the unit and there is no external input jack. For the tests, the case was opened and the microphone element was removed. The signal from the audio signal generator was fed in place of the microphone signal through a 1 uF DC blocking capacitor.

To verify occupied bandwidth compliance over the total range to 15 KHz, we have taken additional data on the unit at 10 KHz and 15 KHz. This data was

taken with a direct connection as before for consistency with the original data and to avoid the difficulty of achieving a proper and meaningful calibrated acoustic coupling method. The following chart shows both the original data taken to 5 KHz and additional data at 10 KHz and 15 KHz at both the reference 1.7 mV input level and at the 5.4 mV over modulation level.

MODULATION LIMITING - INPUT VS. FM DEVIATION

Input Mod. (mV)	Mod. Freq(Hz):	300	1000	3000	5000	10000	15000
0.3	--	7.6	14.0	13.0	--	--	
0.4	--	--	18.5	17.0	--	--	
0.5	4.1	12.0	23.0	21.0	--	--	
0.6	--	--	28.0	26.0	--	--	
0.7	5.7	17.0	--	--	--	--	
0.8	--	--	35.0	33.0	--	--	
1.0	8.6	24.5	45.0	42.0	--	--	
1.2	--	--	52.0	49.0	--	--	
1.5	12.0	36.0	70.0	60.0	--	--	
1.7*	--	--	73.0	60.0	46.4	34.4	
2.0	16.0	48.0	68.0	56.0	--	--	
2.5	20.0	60.0	57.0	49.0	--	--	
3.0	24.0	54.0	53.0	46.0	--	--	

* Max. Deviation = 73 KHz at 3000 Hz with an input of 1.7 mV
Deviation was also checked at the over modulation level of 5.4 mV at
15 KHz and was found to be 30.4 KHz.

The data above demonstrates that the deviation continues to decrease as the modulation frequency is increased (the deviation at 15 KHz is less than half of the deviation at 3 KHz). This would be reflected in the necessary bandwidth (NBW) as follows:

$$\begin{aligned} \text{NBW at 3 KHz} &= 2(73.0) + 2(3.0) = 152.0 \text{ KHz} \\ \text{NBW at 15 KHz} &= 2(34.4) + 2(15) = 98.8 \text{ KHz} \end{aligned}$$

I trust that this information will allow the processing of the application to be completed.

Sincerely,

Harry Derk
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cc: Nick Medendorp
Acil Couch