

**NORTHWEST EMC, INC.**

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April 6, 2001

Subject: Change to the grant for FCC ID: CM676A90343-WMTS (issued 11/29/00)

Dear Application Examiner:

On behalf of Spacelabs Medical, Northwest EMC, Inc is requesting a change to the emission designator on the grant for Model 90343/90347 Digital Telemetry Transmitter, FCC ID: CM676A90343-WMTS. It is a biomedical telemetry transmitter operating under Part 95 WMTS.

The grantee, Spacelabs Medical identified an error in the calculation of the Necessary Bandwidth (see section 7.0 of the technical report submitted with the original application), which produces an incorrect Emission Designator (24K0F1D) on the Grant.

The calculation for Carson's Rule erroneously used 6000 Hz as the Maximum Modulation Frequency. Where in fact it is 8192 Hz, which is shown in the schematic as the output of the clock divider network (see Exhibit F of original application). The Peak Deviation of 6 kHz was correct.

Modulation frequency and deviation measurements from a production sample are attached: The Modulation signal is displayed on a LeCroy oscilloscope which does not have enough frequency resolution for the measurement, so 8.192 kHz was confirmed with a calibrated frequency counter, Racal-Dana Model 1992. A Tektronix 2712 Spectrum Analyzer was used to record the deviation of +/- 6kHz.

The corrected calculation for Carson's Rule is as follows:

Where M = Maximum Modulation Frequency in Hz and D = Peak Deviation in Hz.

$$2M + 2D = 2(8192) + 2(6000) = 28384 \text{ or } 28.4 \text{ kHz}$$

Thus the correct Emissions Designator on the FCC grant should be 28K4F1D. Please note that nothing has changed in this certified unit since the grant was originally issued. There have been no modifications to either the design or construction. This request to change the emission designator is made solely to correct an error in the original application.

Your efforts in correcting the grant are greatly appreciated.

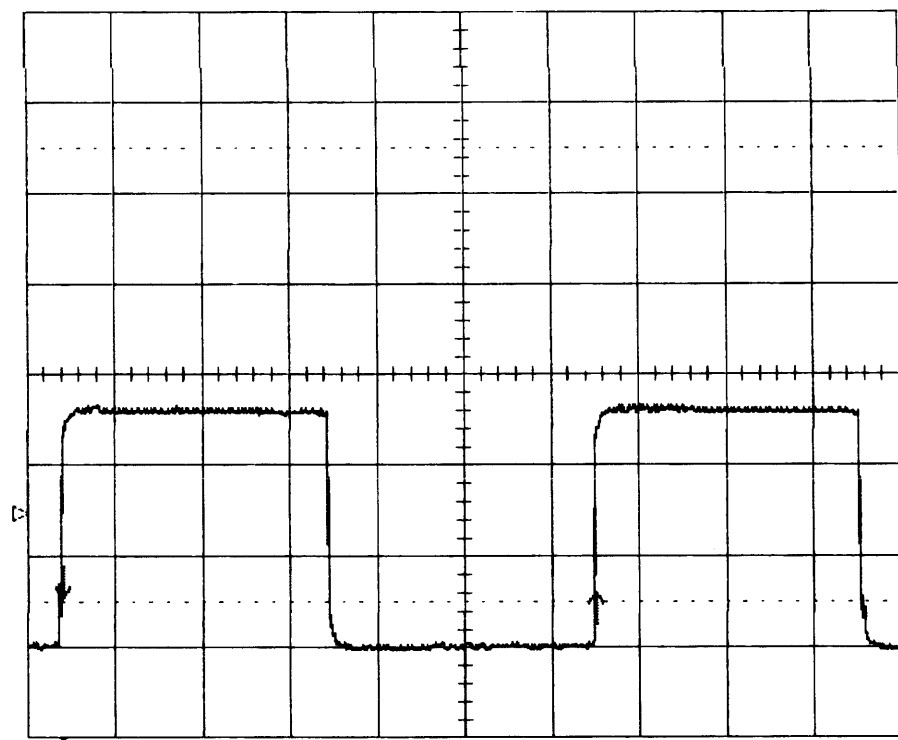
Best regards,



Greg Kiemel, Director of Engineering  
Northwest EMC, Inc.

001  
201

1  
20 ps  
2.00 V  
0.16 V



20 ps  
1 .2 V DC  $\times$   
2 10 mV DC  
3 .5 V DC  
4 .1 V 50 $\Omega$

$\Delta t$  122.3 ps  $\frac{1}{\Delta t}$  8.177 kHz  
1 DC 0.92 V

MEASURE

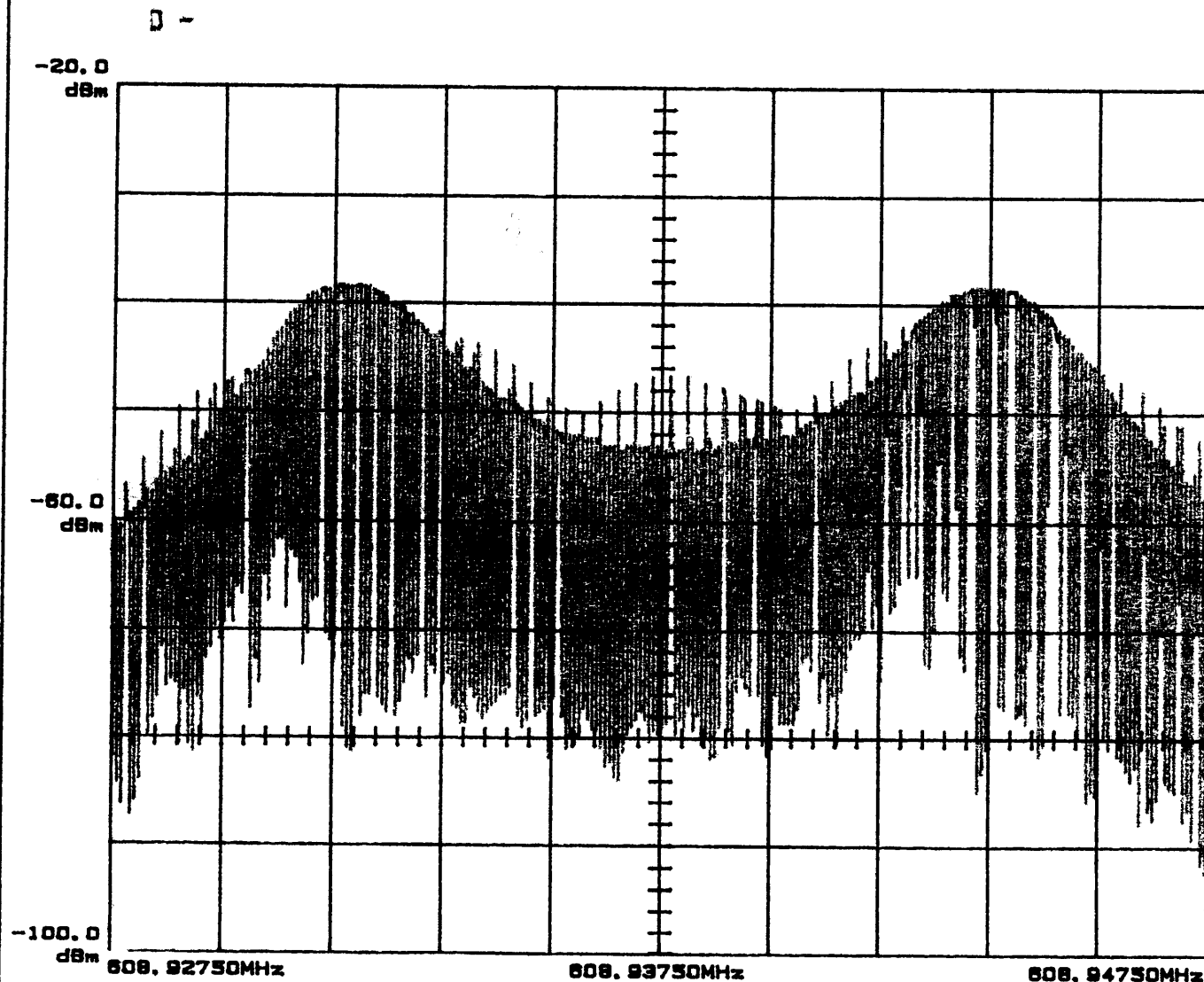
OFF Cursors  
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Difference  
cursor

100 MS/s

☐ AUTO

Modulation Frequency 8.192 kHz confirmed  
with Roca-Dana Model 1992 Frequency Counter  
Measured 8.19198 kHz. *1/1 4/6/01*

Tek  
2712



608.93750MHz  
-20.0dBm  
2.0kHz/  
3KHz RBW

ATTN 10dB  
VF 3kHz  
10 dB/

TIME: 50 ms/DIV

MAX/MIN MODE

Tracking Generator:  
0.0dBm

4/5/01  
JLC

Note: Readouts  
correspond to  
waveform 'D'