

EUT Info

Necessary Bandwidth as defined in 47CFR 2.202(b). Provide justification.

The Stratos LV-T transmits using bipolar FSK. The deviation in this modulator is nominally 16 KHz. The 2 KHz data is Manchester encoded to 4 KHz.

Using Carson's Rule,

$$B_T = 2(\beta + 1)R$$

Where B_T is the occupied bandwidth, and R is the channel rate.
 $\beta = \Delta f/R$ where Δf is the deviation

In this system, $R=4000$ and $\beta = 16/4 = 4$, so that $B_T = 40$ kHz

FCC Emissions Designators:

(1) MICS transmitter: 40K0F1D

(2) Inductive radio: 10K0K1D

DC voltages: Internal battery, 3 volts nominal

DC current into final transmitter stage: approx. 1 mA