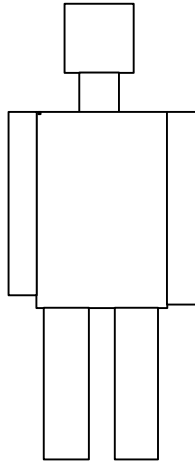| SPECIFIC ABSORPTION RATE CALCULATION |
|---|

Calculations per 2.1093 of CFR 47.

These calculations are based upon a typical human figure as approximated below. The height is 5' 8" (173 cm.) and the weight is 160 lbs. (72.6kg).

The calculated absorption cross section for this figure is 143 cm squared.

CALCULATED UNCONTROLLED, GENERAL POPULATION SAR

$S = PG/(4\pi R^2)$

Where S = power density in mw/cm^2
P = input power to antenna in mw.
G = power gain of antenna
R = distance from antenna in cm.

For a minimum distance of 2.54 centimeters and 0.5 watt (500mW) operation with a ¼ wave whip antenna, S is:

$S = 500(1)/(4\pi(2.54)^2) = 6.167$ mw/cm^2

For a body cross sectional area of 143 cm squared, (6.167)(143) = 881.9 mw is absorbed.

For a body mass of 72.6 kg, this is 0.8819/72.6 = 0.01248 watts/kg

This is well within the .08 watts/kg limit prescribed by CFR 47 paragraph 2.1093.
It is recommended that the EUT be used 2" to 3" away from the microphone. This distance would reduce the SAR calculation to 0.003 watts/kg.