

Answer 7

Derivation of Validation Targets

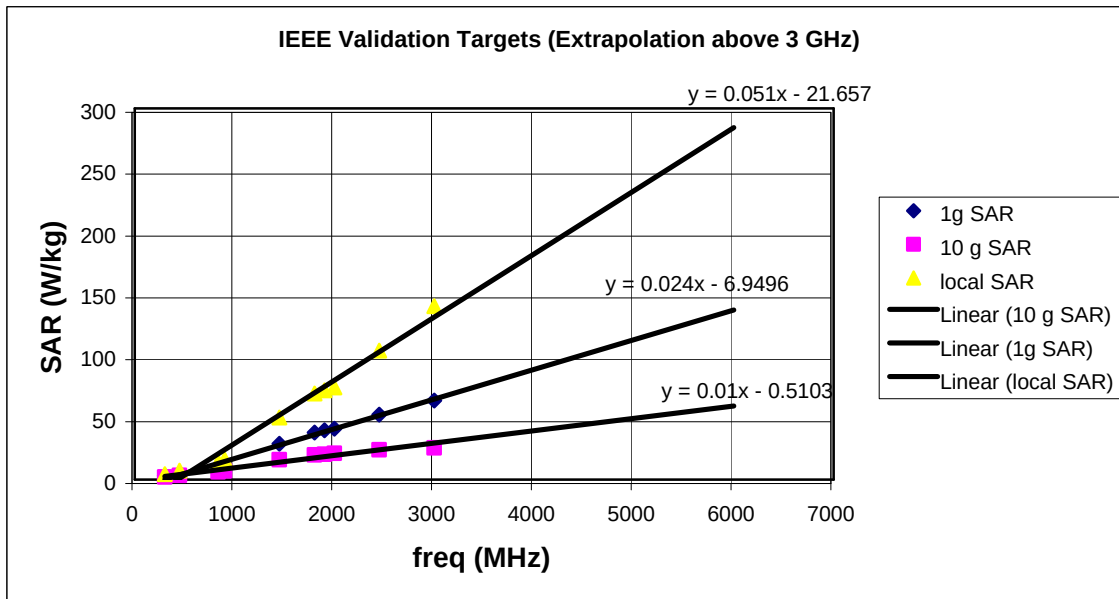


Figure A

Assuming the validation targets were related linearly with frequency, we characterized the validation targets with frequency in the above scatter plot. A linear extrapolation was then used to derive an approximate validation target for 5300. By substitution method, we obtained the following results:

For SAR normalized to a forward power of 1 W,

5300 MHz:

Local SAR = 248.64 W/kg

1g SAR = 120.25 W/kg

10g SAR = 52.49 W/kg

For the validations, we normalized 5300 MHz targets from a 50 mW forward power. The 1g SAR targets normalized to 50 mW are:

$$\text{SAR}_{\text{tgt}}(f= 5300 \text{ MHz}, P=0.05 \text{ W}) = 120.25 * 0.05 = \mathbf{6.01 \text{ W/kg}}$$

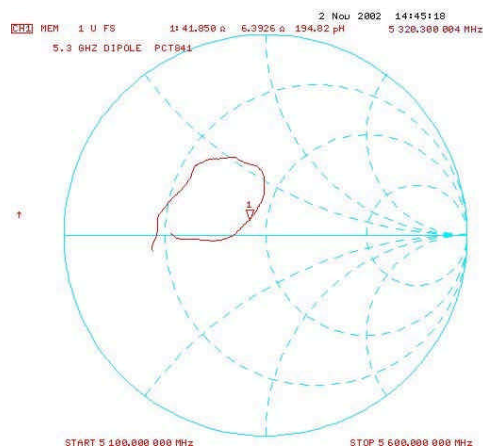
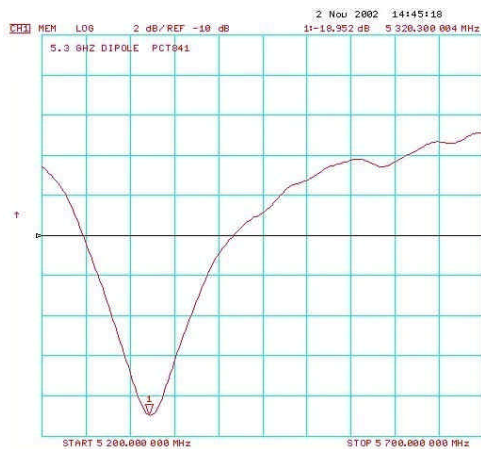
Answer 7

Dipole Physical Characteristics:

Length(L): 25.0 mm

Height (h): 13.4 mm

Depth (d): 3.75 mm



Dipole Photograph

