Letters

Corrections to "An Empirical Relationship for Electromagnetic Energy Absorption in Man for Near-Field Exposure Conditions"

I. CHATTERJEE, M. J. HAGMANN, AND O. P. GANDHI

In the above referenced paper,[1] the following corrections should be made.

On page 1236, in Table I, the unit for SAR should be μW/kg rather than W/kg$\times 10^{-6}$.

On page 1236, in Fig. 1, the caption should read: Fig. 1. Whole-body-average SAR (in W/kg for 1 mW/cm^2 incident energy density) for man in free space [3]. *Divide* by 3770 for W/kg with 1 V/m rms incident ***E***-field or (3770$\times$2) for W/kg with 1 V/m peak incident ***E***-field.

On page 1237, in Fig. 3, the ordinate should read SAR (μW/kg).

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[1] I. Chatterjee, M. J. Hagman, and O. P. Ghandi, *IEEE Trans. Microwave Theory Tech.*, vol. MTT-29, pp. 1235–1238, Nov. 1981.

The caption should read: Fig. 3. Comparison of exact numerical solutions with those obtained from the empirical equation. Frequency = 77 MHz. Spatial maximum in vertical electric field = *0.707 V/m rms or 1 V/m peak*. $\Delta_v = 0.5\ \lambda$. The asymptotic line indicates the value of SAR for $\Delta_h = \infty$. We would like to point out that in order to obtain the SAR for the near-field with $\Delta_v = 0.5\ \lambda$ and $\Delta_h = \infty$ at 77 MHz, we have to use a value of far-field SAR read off from Fig. 1 divided by (3770$\times$2). Therefore, from (1)

$$\mathrm{SAR}|_{\text{near-field}} = \frac{0.22/(3770\times 2)}{\left[1+\left(\frac{2.12}{1.95}\right)^2\right]}$$

$$= 13.4\ \mu\mathrm{W/kg}$$

for a spatial maximum in vertical electric field = 0.707 V/m rms. This is very close to the value indicated by the solid horizontal line in Fig. 3. The agreement is not exact because the values of SAR shown in Fig. 1 were obtained for a homogeneous block model and the numerical results in Fig. 3 are for an inhomogeneous block model.

Patent Abstracts

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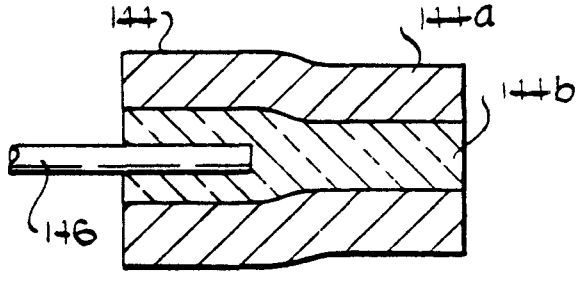
4,290,667 Sep. 22, 1981

Optical Fiber Terminations and Connectors

Inventor: Martin Chown.
Assignee: International Standard Electric Corporation.
Filed: Jun. 30, 1978.

Abstract—A termination for an optical fiber is formed with an integral lens for producing an expanded parallel light beam. A pair of terminations provide an optical coupler for connecting between a corresponding pair of optical fibers.

11 Claims, 20 Drawing Figures



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