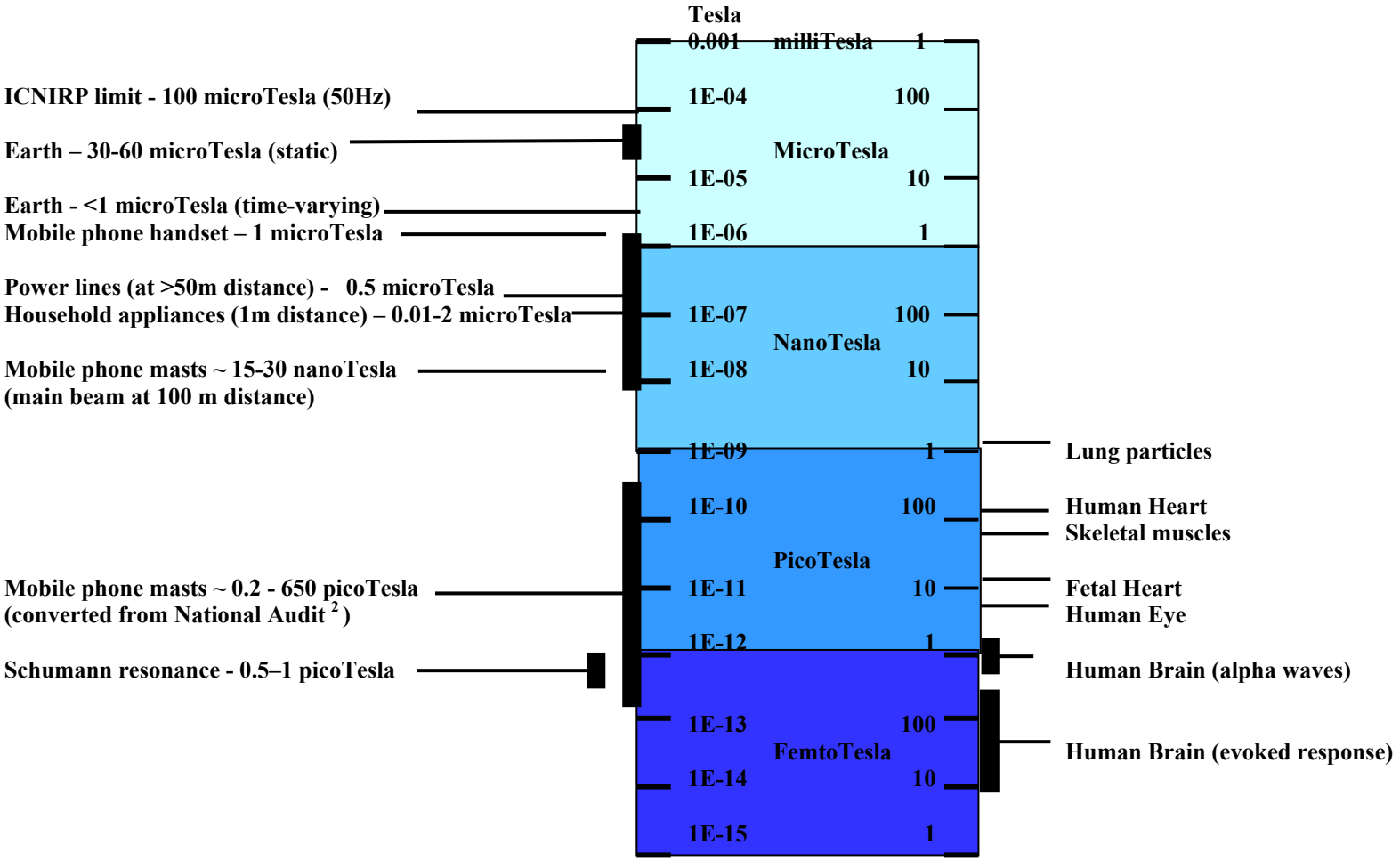
MAGNETIC FLUX DENSITY

ENVIRONMENTAL FIELDS

BIOLOGICAL FIELDS
(Squid Magnetometer measurements[1])



[1] **From - http://www.lanl.gov/quarterly/q_spring03/pdfs/larq_4_03_squid.pdf**

[2] **The intensity I (power density) of an electromagnetic wave and its magnetic flux density B are related by the equation**

$$I = \frac{c}{\mu_0} B^2$$

If I is measured in W/m^2 and B in μT this relation becomes

$$I = 239B^2 \qquad or \qquad B = 0.0647\sqrt{I}$$

Examples

Intensity in W/m^2	Magnetic Flux Density in μT	Magnetic Flux Density in pT
1	0.0647	64700
0.01	0.00647	6470
1E-04	0.000 647	647
1E-06	0.000 0647	64.7
1E-08	0.000 00647	6.47
1E-10	0.000 000 647	0.647
1E-12	0.000 000 0647	0.0647

Results from measurements of mobile phone masts (UK national audit) at http://www.ofcom.org.uk/sitefinder/audit_info

~ 1E-11 W/m^2 – 1E-04 W/m^2 = 0.204 pT - 647 pT