

SCHEDULE

PART 2

Direct biophysical effects of exposure

Action levels – thermal effects

Table AL3 – ALs for exposure to electromagnetic fields from 100 kHz to 300 GHz

| <i>Frequency range</i> | <i>External electric field strength ALs (E) [Vm⁻¹]</i> | <i>Magnetic flux density ALs (B) [μT]</i> | <i>Power density AL (S)[Wm⁻²]</i> |
|---|---|---|--|
| 100 kHz ≤ f < 1 MHz | 6.1×10^2 | $2.0 \times 10^6/f$ | |
| 1 ≤ f < 10 MHz | $6.1 \times 10^8/f$ | $2.0 \times 10^6/f$ | |
| 10 ≤ f < 400 MHz | 61 | 0.2 | |
| 400 MHz ≤ f < 2 GHz | $3 \times 10^{-3} f^{1/2}$ | $1.0 \times 10^{-5} f^{1/2}$ | |
| 2 ≤ f < 6 GHz | 1.4×10^2 | 4.5×10^{-1} | |
| 6 ≤ f ≤ 300 GHz | 1.4×10^2 | 4.5×10^{-1} | 50 |
| Exposure levels not exceeding the ALs will be compliant with: | Up to 6 GHz: the health effect ELVs in Table ELV4 6 - 300 GHz: the health effect ELV in Table ELV6 | | The health effect ELV in Table ELV6 |

Notes

1. The electric field strength and magnetic flux density ALs are root mean square values.
2. For radiofrequency pulses, the peak power density averaged over the pulse width must not exceed 1000 times the respective AL (S) value. For multi-frequency fields, the analysis must be based on summation.
3. Note 3 to Table AL1 applies in relation to the ALs for external electric field strength and magnetic flux density.
4. The power density is the maximum level averaged over any 20cm² of exposed area. Spatial maximum power densities averaged over 1cm² must not exceed 20 times the value of 50 Wm⁻².
5. From 6 to 10 GHz, power density must be averaged over a six minute period. Above 10 GHz, it must be averaged over a $68/f^{1.05}$ -minute period (where “f” is the frequency in GHz).

Table AL4 – AL for exposure to electromagnetic fields from 10 to 110MHz

| <i>Frequency range</i> | <i>Limb current AL (I_L) [mA]</i> |
|------------------------|---|
| 10 ≤ f ≤ 110 MHz | 100 |

Status: This is the original version (as it was originally made). This item of legislation is currently only available in its original format.

| <i>Frequency range</i> | <i>Limb current AL (I_L) [mA]</i> |
|---|--|
| Exposure levels not exceeding the ALs will be compliant with: | The health effect ELV in Table ELV4 - localised SAR in the limbs |

Note

The AL is a root mean square value.