

## STATUTORY INSTRUMENTS

# 2015 No. 591

## The Wireless Telegraphy (Ultra-Wideband Equipment) (Exemption) Regulations 2015

### PART 7

#### USE OF ULTRA-WIDEBAND EQUIPMENT FOR BUILDING MATERIAL ANALYSIS

#### Exemption

**29.** The establishment, installation or use of ultra-wideband equipment complying with the terms, provisions and limitations in regulation 30 is hereby exempt from the provisions of section 8(1) of the Act.

#### Commencement Information

**11** Reg. 29 in force at 25.3.2015, see [reg. 1](#)

#### Terms, provisions and limitations

**30.**—(1) The exemption provided for in regulation 29 shall apply to ultra-wideband equipment which is a building material analysis device and which complies with the requirements of paragraphs (2) to (4) of this regulation.

(2) The ultra-wideband equipment must—

- (a) only have the transmitter turned on if manually operated with a non-locking switch;
- (b) be used in close proximity to the material being analysed with the emissions being directed into the direction of the object of the analysis; and
- (c) switch off automatically after ten seconds without any movement.

(3) The ultra-wideband equipment must not cause or contribute to undue interference to other users of the electromagnetic spectrum.

(4) The ultra-wideband equipment must only emit signals <sup>F1</sup>... which—

- (a) are kept to a minimum; and
- (b) if the equipment were to be placed on a representative wall [<sup>F2</sup>(as defined within harmonised standard ETSI EM 302 065-4)]<sup>F3</sup> would be in accordance with the condition in regulation 31.

**F1** Words in [reg. 30\(4\)](#) omitted (6.2.2018) by virtue of [The Wireless Telegraphy \(Ultra-Wideband Equipment\) \(Exemption\) \(Amendment\) Regulations 2018 \(S.I. 2018/44\)](#), regs. 1, 2(7)(a)

**F2** Words in [reg. 30\(4\)\(b\)](#) substituted (6.2.2018) by [The Wireless Telegraphy \(Ultra-Wideband Equipment\) \(Exemption\) \(Amendment\) Regulations 2018 \(S.I. 2018/44\)](#), regs. 1, 2(7)(b)(i)

**F3** Reg. 30(4)(b) footnote omitted (6.2.2018) by virtue of *The Wireless Telegraphy (Ultra-Wideband Equipment) (Exemption) (Amendment) Regulations 2018 (S.I. 2018/44)*, regs. 1, 2(7)(b)(ii)

**Commencement Information**

**I2** Reg. 30 in force at 25.3.2015, see [reg. 1](#)

**Transmission limits**

**31.** The condition referred to in regulation 30(4)(b) is that the ultra-wideband equipment only emits transmissions which—

- (a) in the frequencies up to 1.215 GHz when measured in any direction have—
  - (i) a maximum mean power spectral density no greater than -85.0 dBm/MHz; and
  - (ii) a maximum peak power no greater than -45.0 dBm or the equivalent transmission level;
  - (iii) a total radiated power spectral density of -90.0 dBm/MHz;
- (b) in the frequency band 1.215 GHz to 1.73 GHz when measured in any direction—
  - (i) have a maximum mean power spectral density —
    - (aa) no greater than -85.0 dBm/MHz; or
    - (bb) no greater than -70.0 dBm/MHz provided that a listen before talk mechanism [F<sup>4</sup>described in harmonised standard ETSI EN 302 065-4] is used to mitigate interference to other users of the electromagnetic spectrum.
  - (ii) have a maximum peak power no greater than -45.0 dBm or the equivalent transmission level; and
  - (iii) have a total radiated power spectral density of -90.0 dBm/MHz;
- (c) in the frequency band 1.73 GHz to 2.2 GHz when measured in any direction have—
  - (i) a maximum mean power spectral density no greater than -65.0 dBm/MHz;
  - (ii) a maximum peak power no greater than -25.0 dBm or the equivalent transmission level; and
  - (iii) a total radiated power spectral density of -70 dBm/MHz;
- (d) in the frequency band 2.2 GHz to 2.5 GHz when measured in any direction have—
  - (i) a maximum mean power spectral density no greater than -50.0 dBm/MHz;
  - (ii) a maximum peak power no greater than -10.0 dBm or the equivalent transmission level; and
  - (iii) a total radiated power spectral density of -55 dBm/MHz;
- (e) in the frequency band 2.5 GHz to 2.69 GHz when measured in any direction—
  - (i) have a maximum mean power spectral density —
    - (aa) no greater than -65.0 dBm/MHz; or
    - (bb) no greater than -50.0 dBm/MHz provided that a listen before talk mechanism [F<sup>5</sup>described in harmonised standard ETSI EN 302 065-4] is used to mitigate interference to other users of the electromagnetic spectrum;
  - (ii) have a maximum peak power spectral density no greater than -25.0 dBm or the equivalent transmission level; and
  - (iii) have a total radiated power spectral density of -70.0 dBm/MHz;
- (f) in the frequency band 2.69 GHz to 2.7 GHz when measured in any direction have—

- (i) a maximum mean power spectral density no greater than -55.0 dBm/MHz;
  - (ii) a maximum peak power no greater than -15.0 dBm or the equivalent transmission level; and
  - (iii) a total radiated power spectral density below -65.0 dBm/MHz;
- (g) in the frequency band 2.7 GHz to 3.4 GHz when measured in any direction—
- (i) have a maximum mean power spectral density —
    - (aa) no greater than -70.0 dBm/MHz; or
    - (bb) no greater than -50.0 dBm/MHz provided that a listen before talk mechanism [F6 described in harmonised standard ETSI EN 302 065-4] is used to mitigate interference to other users of the electromagnetic spectrum;
  - (ii) have a maximum peak power no greater than -30.0 dBm or the equivalent transmission level; and
  - (iii) have a total radiated power spectral density of -75.0 dBm/MHz;
- (h) in the frequency band 3.4 GHz to 4.8 GHz when measured in any direction have—
- (i) a maximum mean power spectral density no greater than -50.0 dBm/MHz;
  - (ii) a maximum peak power no greater than -10.0 dBm or the equivalent transmission level; and
  - (iii) a total radiated power spectral density of -55.0 dBm/MHz;
- (i) in the frequency band 4.8 GHz to 5.0 GHz when measured in any direction have—
- (i) a maximum mean power spectral density no greater than -55.0 dBm/MHz;
  - (ii) a maximum peak power no greater than -15.0 dBm or the equivalent transmission level; and
  - (iii) a total radiated power spectral density below -65.0 dBm/MHz;
- (j) in the frequency band 5.0 GHz to 8.5 GHz when measured in any direction have—
- (i) a maximum mean power spectral density no greater than -50.0 dBm/MHz;
  - (ii) a maximum peak power no greater than -10.0 dBm or the equivalent transmission level; and
  - (iii) a total radiated power spectral density of -55.0 dBm/MHz; and
- (k) in the frequency bands above 8.5 GHz when measured in any direction have—
- (i) a maximum mean power spectral density no greater than -85.0 dBm/MHz;
  - (ii) a maximum peak power no greater than -45.0 dBm or the equivalent transmission level; and
  - (iii) a total radiated power spectral density of -90.0 dBm/MHz.

- F4** Words in [reg. 31\(b\)\(i\)\(bb\)](#) substituted (6.2.2018) by [The Wireless Telegraphy \(Ultra-Wideband Equipment\) \(Exemption\) \(Amendment\) Regulations 2018 \(S.I. 2018/44\)](#), regs. 1, **2(8)(a)**
- F5** Words in [reg. 31\(e\)\(i\)\(bb\)](#) substituted (6.2.2018) by [The Wireless Telegraphy \(Ultra-Wideband Equipment\) \(Exemption\) \(Amendment\) Regulations 2018 \(S.I. 2018/44\)](#), regs. 1, **2(8)(b)**
- F6** Words in [reg. 31\(g\)\(i\)\(bb\)](#) substituted (6.2.2018) by [The Wireless Telegraphy \(Ultra-Wideband Equipment\) \(Exemption\) \(Amendment\) Regulations 2018 \(S.I. 2018/44\)](#), regs. 1, **2(8)(c)**

**Commencement Information**

- I3** Reg. 31 in force at 25.3.2015, see [reg. 1](#)

**Changes to legislation:**

There are currently no known outstanding effects for the The Wireless Telegraphy (Ultra-Wideband Equipment) (Exemption) Regulations 2015, PART 7.