
STATUTORY INSTRUMENTS

2015 No. 591

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

PART 4

**USE OF ULTRA-WIDEBAND EQUIPMENT IN
AUTOMOTIVE VEHICLES AND RAILWAY VEHICLES**

Exemption

12. The establishment, installation or use of ultra-wideband equipment complying with the terms, provisions and limitations in regulation 13 is hereby exempt from the provisions of section 8(1) of the Act.

Commencement Information

I1 Reg. 12 in force at 25.3.2015, see [reg. 1](#)

Terms, provisions and limitations

13.—(1) The exemption provided for in regulation 12 shall apply to ultra-wideband equipment which complies with the requirements of paragraphs (2) to (4) of this regulation.

(2) The ultra-wideband equipment must be used in an automotive vehicle or in a railway vehicle.

(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 emit transmissions which are in accordance with the condition in regulation 14.

Commencement Information

I2 Reg. 13 in force at 25.3.2015, see [reg. 1](#)

Transmission limits

14. The condition referred to in regulation 13(4) is that the ultra-wideband equipment only emits transmissions which—

(a) in frequencies up to 1.6 GHz when measured in any direction have—

(i) a maximum mean power spectral density no greater than -90.0 dBm/MHz; and

(ii) a maximum peak power no greater than -50.0 dBm or the equivalent transmission level;

- (b) in the frequency band 1.6 GHz to 2.7 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;
- (c) in the frequency band 2.7 GHz to 3.1 GHz when measured in any direction have—
 - (i) a maximum mean power spectral density no greater than -70.0 dBm/MHz; and
 - (ii) a maximum peak power no greater than -36.0 dBm or the equivalent transmission level;
- (d) in the frequency band 3.1 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;
 - (bb) no greater than -41.3 dBm/MHz provided that the technique set out in regulation 15(a) is used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied; or
 - (cc) no greater than -41.3 dBm/MHz provided that both of the techniques set out in regulation 15(b) and regulation 15(c) are used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied; and
 - (ii) have a maximum peak power—
 - (aa) no greater than -36 dBm or the equivalent transmission level;
 - (bb) no greater than 0.0 dBm or the equivalent transmission level provided that the technique set out in regulation 15(a) is used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied; or
 - (cc) no greater than 0.0 dBm or the equivalent transmission level provided that both of the techniques set out in regulation 15(b) and regulation 15(c) are used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied;
- (e) in the frequency band 3.4 GHz to 3.8 GHz when measured in any direction—
 - (i) have a maximum mean power spectral density—
 - (aa) no greater than -80.0 dBm/MHz;
 - (bb) no greater than -41.3 dBm/MHz provided that the technique set out in regulation 15(a) is used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied; or
 - (cc) no greater than -41.3 dBm/MHz provided that both of the techniques set out in regulation 15(b) and regulation 15(c) are used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied; and
 - (ii) have a maximum peak power—
 - (aa) no greater than -40.0 dBm or the equivalent transmission level;
 - (bb) no greater than 0.0 dBm or the equivalent transmission level provided that the technique set out in regulation 15(a) is used to mitigate interference to

- other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied; or
- (cc) no greater than 0.0 dBm or the equivalent transmission level provided that both of the techniques set out in regulation 15(b) and regulation 15(c) are used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied;
- (f) in the frequency band 3.8 GHz to 4.8 GHz when measured in any direction—
- (i) have a maximum mean power spectral density—
- (aa) no greater than -70.0 dBm/MHz;
- (bb) no greater than -41.3 dBm/MHz provided that the technique set out in regulation 15(a) is used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied; or
- (cc) no greater than -41.3 dBm/MHz provided that both of the techniques set out in regulation 15(b) and regulation 15(c) are used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied; and
- (ii) have a maximum peak power—
- (aa) no greater than -30.0 dBm or the equivalent transmission level;
- (bb) no greater than 0.0 dBm or the equivalent transmission level provided that the technique set out in regulation 15(a) is used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied; or
- (cc) no greater than 0.0 dBm or the equivalent transmission level provided that both of the techniques set out in regulation 15(b) and regulation 15(c) are used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied;
- (g) in the frequency band 4.8 GHz to 6.0 GHz when measured in any direction have—
- (i) a maximum mean power spectral density no greater than -70.0 dBm/MHz; and
- (ii) a maximum peak power no greater than -30.0 dBm or the equivalent transmission level;
- (h) in the frequency band 6.0 GHz to 8.5 GHz when measured in any direction—
- (i) have a maximum mean power spectral density—
- (aa) no greater than -53.3 dBm/MHz;
- (bb) no greater than -41.3 dBm/MHz provided that the technique set out in regulation 15(a) is used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 MHz is applied; or
- (cc) no greater than -41.3 dBm/MHz provided that the technique set out in regulation 15(c) is used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 MHz is applied; and
- (ii) have a maximum peak power—
- (aa) no greater than -13.3 dBm or the equivalent transmission level;
- (bb) no greater than 0.0 dBm or the equivalent transmission level provided that the technique set out in regulation 15(a) is used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied; or

- (cc) no greater than 0.0 dBm or the equivalent transmission level that the technique set out in regulation 15(c) is used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied;
- (i) in the frequency band 8.5 GHz to 9 GHz when measured in any direction have—
 - (i) a maximum mean power spectral density—
 - (aa) no greater than -65.0 dBm/MHz; or
 - (bb) no greater than -41.3 dBm/MHz provided that both of the techniques set out in regulation 15(b) and regulation 15(c) are used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied; and
 - (ii) have a maximum peak power—
 - (aa) no greater than -25 dBm or the equivalent transmission level; or
 - (bb) no greater than 0 dBm or the equivalent transmission level provided that both of the techniques set out in regulation 15(b) and regulation 15(c) are used to mitigate interference to other users of the electromagnetic spectrum and an exterior limit of -53.3 dBm/MHz is applied;
- (j) in the frequency band 9 GHz to 10.6 GHz when measured in any direction have—
 - (i) a maximum mean power spectral density no greater than -65.0 dBm/MHz; and
 - (ii) a maximum peak power no greater than -25.0 dBm or the equivalent transmission level; and
- (k) in frequency bands above 10.6 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.

Commencement Information

I3 Reg. 14 in force at 25.3.2015, see [reg. 1](#)

Mitigation techniques

- 15.** The mitigation techniques referred to in regulation 14 are—
- (a) the low duty cycle mitigation technique and its limits described in harmonised standard EN 302 065-3(1);
 - (b) the detect and avoid mitigation technique and its limits described in harmonised standard EN 302 065-3; and
 - (c) the transmit power control mitigation technique and its limits described in harmonised standard EN 302 065-3.

Commencement Information

I4 Reg. 15 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 4. (See end of Document for details)*

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There are currently no known outstanding effects for the The Wireless Telegraphy (Ultra-Wideband Equipment) (Exemption) Regulations 2015, PART 4.