

[DRAFT] SCHEDULE 4 TO LICENCE NUMBER: [xxx]

Licence category: D2D services in [xxx] MHz

Description of D2D services

1. References in this schedule to D2D services are references to wireless communications services provided by an undertaking operating a mobile satellite system to enable terrestrial users of electronic communications to send and receive radio signals directly to and from a space station.

Special conditions relating to the operation of D2D services

2. The Licensee shall ensure that the provision of D2D services shall not cause or contribute to harmful interference to any wireless telegraphy.
3. Prior to providing the D2D services, the Licensee shall procure (by entering into a contract with the undertaking operating the mobile satellite system) that the undertaking complies with the provisions set out in paragraphs 6 – 13. In the event that this contract terminates for whatever reason, the Licensee shall cease to provide D2D services.
4. During the period that this schedule remains in force, unless consent has otherwise been given by Ofcom, the Licensee shall compile and maintain accurate written records of the following details relating to the D2D services:
 - (a) A coverage map of service in the UK, showing the predicted PFD (power flux density) on the ground for the best-serving beam, at a resolution of 100m x 100m pixels;
 - (b) A coverage map of service in the UK, showing the predicted aggregate PFD (power flux density) on the ground from all beams over the UK, at a resolution of 100m x 100m pixels;
 - (c) A map of unwanted transmissions outside of service areas in the UK, showing the predicted aggregate PFD (power flux density) on the ground from all beams over the UK, at a resolution of 100m x 100m pixels and at a distance of up to 100km from the boundary of each service area and any other areas specified by Ofcom from time to time;
 - (d) The out of block and out of band spectrum masks associated with each beam; and
 - (e) confirming that there are no pixels within the service area for which the best serving satellite is less than 10 degrees elevation relative to the ground,

and the Licensee must produce these records if requested by any person authorised by Ofcom. Where information in paragraph 4 changes, a date-stamped historic record must be maintained.

5. The Licensee shall also compile and maintain accurate written records demonstrating how they have complied with any coordination procedures as set out in paragraphs 8 – 13, including any coordination calculations.

Permitted frequency blocks

6. The D2D services shall be provided in the following frequencies only:

Downlink frequencies	Uplink frequencies
X [range]	X [range]

Co-ordination at Frequency and Geographical Boundaries and Compliance with Other Procedures Relating to Interference Mitigation

7. The D2D services shall operate on a non-interference, non-protection basis. For the avoidance of doubt, this means that the D2D services must not cause undue interference to other authorised uses of radio spectrum and that no claim of protection can be made if interference is received from another authorised device or service.
8. The D2D services shall be operated in compliance with such co-ordination and sharing procedures as may be notified to the Licensee by Ofcom from time to time.
9. When providing the D2D services:
- a) the aggregate transmitted power from all the space stations, measured at the surface of the earth shall not exceed **[the relevant limit set out in table 3.3 of Section 3 of the Statement and Further Consultation]** dBm/MHz/m² when transmitted at any frequency outside of the range set out in the table at paragraph 6.
 - b) **[Subject to consultation responses, condition relating to protection of 2.7 GHz Air Traffic Control Radar to be inserted following conclusion of the consultation set out in section 3.41 to 3.46 of the Statement and Further Consultation.]**
10. No space station that is used to provide D2D services shall transmit to a location within the geographical scope of the Licence from an angle of elevation below 10 degrees.

International Cross-Border Coordination

12. The D2D services shall be operated in compliance with such cross-border co-ordination and sharing procedures as may be notified to the Licensee by Ofcom from time to time.
13. When providing the D2D services the aggregate transmitted power from all the space stations, measured at the surface of the earth shall not exceed **[the relevant limit set out in table 3.3 of Section 3 of the Statement and Further Consultation]** dBm/MHz/m² at any frequency at the border, or coastline, of neighbouring countries and territories (including the Isle of Man and the Channel Islands).

Interpretation

14. In this schedule:

- a) “associated facilities” and “electronic communications network” have the meaning given to them by Section 32 of the Communications Act 2003;
- b) “mobile satellite system” means an electronic communications network and associated facilities which is capable of providing radio-communications services between a mobile earth station and one of more space station; and
- c) “undertaking” means any natural or legal person (or other entity) engaged in economic activity, regardless of its legal status and the way it is financed.

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