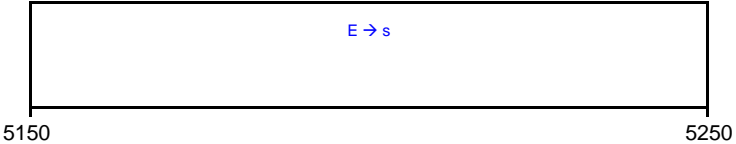
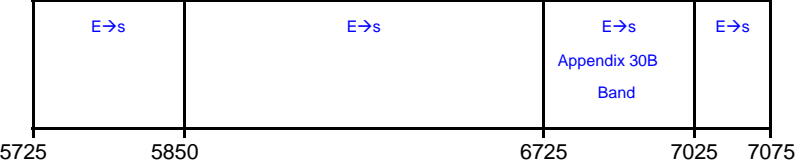
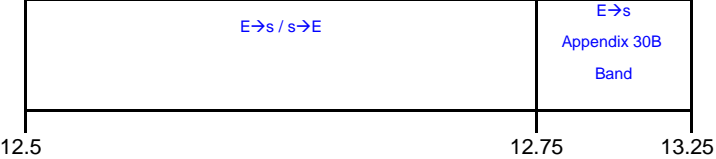


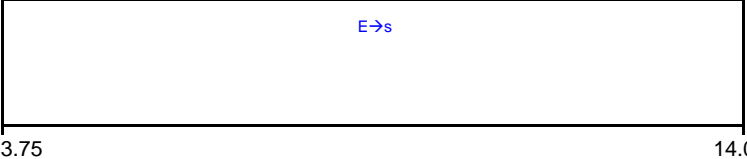
RA 383
Frequency
Allocations for the
Fixed Satellite Service in the United Kingdom

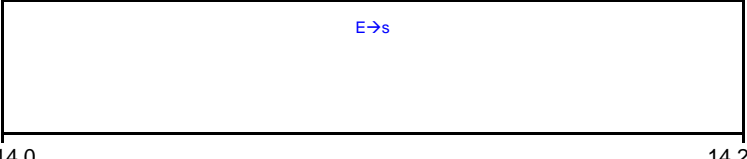
This Information Sheet provides details of the frequency allocations for Satellite Links that can be licensed for transmission by the Fixed Terrestrial and Satellite Links Unit (FTSLU).

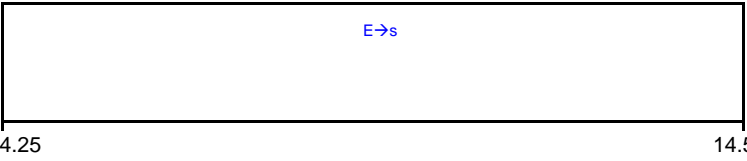
Currently, only the transmitter (earth-to-space) can be licensed, but in some bands, protection is provided to the receive (space-to-earth) spectrum for co-ordinated permanent earth stations. For completeness this spectrum is also shown.

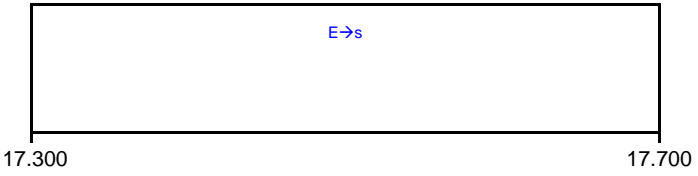
Transmit (Licensed) Bands

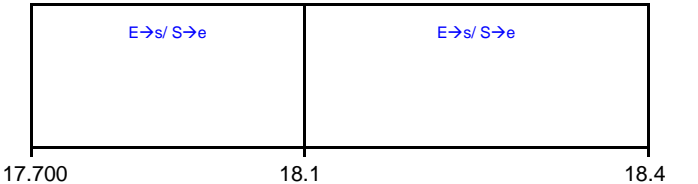
| 5 GHz | Applications | Other Information |
|---|--|---|
|  <p>5150 5250</p> | <p>This band may only be used for MSS NGSO feeder links.</p> | |
| 6 GHz | Applications | Other Information |
|  <p>5725 5850 6725 7025 7075</p> | <p>FIXED SATELLITE: Uplink band mainly used for intercontinental television distribution (mainly digital), telephony and digital business links.</p> | <p>A variety of transponder bandwidth sizes from 36 MHz to 140 MHz.</p> <p>Shared with Fixed Links, requires co-ordination in bands 5850-7075</p> |
| 12 GHz | Applications | Other Information |
|  <p>12.5 12.75 13.25</p> | <p>FIXED SATELLITE: 12.5 to 12.75 GHz: primarily used for downlinks. This band is mainly paired with 14.0 to 14.25 GHz for VSAT and business services.</p> <p>FIXED SATELLITE: 12.75 to 13.25 GHz: is used for uplinks to satellites offering commercial TV services and interactive services.</p> | <p>As far as the RA is aware, there are no satellites filed with 12.5-12.75 as an uplink (E to s).</p> <p>The 12.75-13.25 GHz band is heavily used by Fixed Links. There is a requirement to coordinate and protect and as a general rule, use of the band within the M25 and other major conurbations is not generally feasible.</p> |

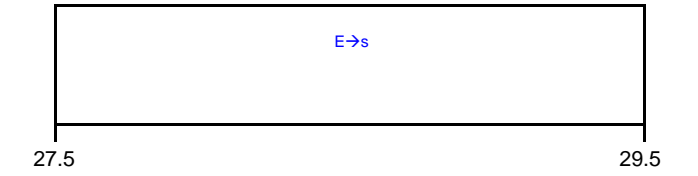
| 14 GHz | Applications | Other Information |
|---|---|--|
|  <p data-bbox="129 327 873 347">13.75 14.0</p> | <p data-bbox="1012 156 1290 204">FIXED SATELLITE: used for Earth-to-space.</p> | <p data-bbox="1312 156 1612 177">13.75 to 14.0 GHz</p> <p data-bbox="1312 193 1612 416">Use of this band by the FSS is subject to compliance with Radio Regulation footnotes S5.502 (EIRP of an emission from an earth station should be at least 68 dBW, and should not exceed 85 dBW, with a minimum antenna diameter of 4.5m) and S5.503</p> |

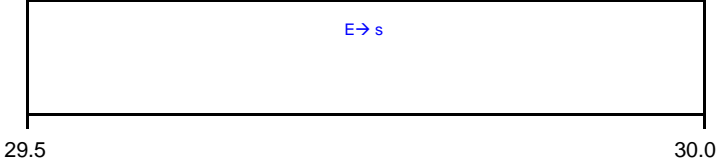
| 14 GHz | Applications | Other Information |
|---|--|---|
|  <p data-bbox="129 722 873 743">14.0 14.25</p> | <p data-bbox="1012 544 1290 592">FIXED SATELLITE: used for Earth-to-space.</p> <p data-bbox="1012 647 1290 719">Mainly used for low density carriers, including VSATs and SNGs.</p> | <p data-bbox="1312 544 1612 616">This portion of the 14GHz band is not shared with terrestrial fixed links.</p> <p data-bbox="1312 632 1612 652">Paired with 12.5 – 12.75 GHz</p> |

| 14 GHz | Applications | Other Information |
|---|--|--|
|  <p data-bbox="129 1139 873 1160">14.25 14.5</p> | <p data-bbox="1012 976 1290 1024">FIXED SATELLITE: used for Earth-to-space.</p> <p data-bbox="1012 1080 1290 1128">Used only by PES, and SNG.</p> | <p data-bbox="1312 976 1612 1096">This portion of the 14GHz band is shared with terrestrial fixed links and its use is subject to national coordination.</p> |

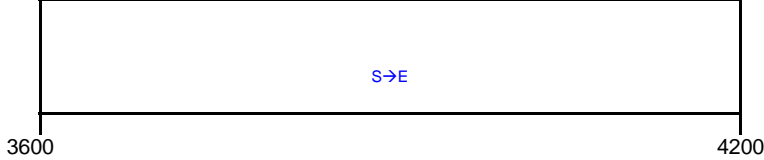
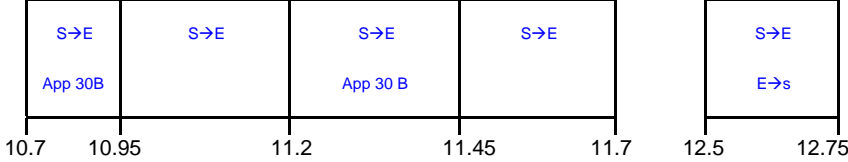
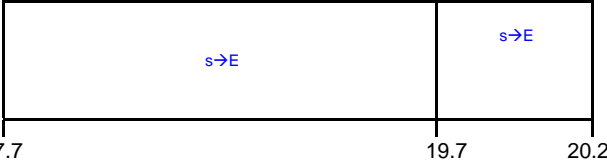
| 17 GHz | Applications | Other Information |
|---|--|--|
|  | <p>FIXED SATELLITE: 17.3 to 17.7 GHz is limited for use for BSS feeder links.</p> | <p>Shared with a few fixed links associated with cable TV systems, subject to national coordination.</p> <p>Subject to RR Appendix 30A and paired with BSS downlink bands, 11.7 – 12.5 GHz</p> |

| 18 GHz | Applications | Other Information |
|---|--|---|
|  | <p>FIXED SATELLITE: 17.7 to 18.4 GHz use as an uplink band is limited to use by BSS feeder links.</p> | <p>17.7- 18.4 GHz is shared with Fixed Links and is subject to national coordination</p> <p>In addition, use of the band 18.1 - 18.4 GHz is not generally feasible within the M25 and some other major conurbations.</p> <p>Subject to RR Appendix 30A and paired with BSS downlink bands, 11.7 – 12.5 GHz</p> |

| 28 GHz | Applications | Other Information |
|--|---|--|
|  | <p>This band may be used for coordinated earth stations subject to review of the UK moratorium in September 2002.</p> <p>27.5 to 29.5 GHz: soft partitioned in accordance with ERC/DEC/(00)09.</p> <p>Exclusive bands intended for uncoordinated FSS terminals. 27.5 to 27.8285 GHz, 28.4445 to 28.6365 GHz, 29.4525 to 29.5 GHz,</p> | <p>27.5 to 29.5 GHz uplinks are normally paired with 17.7 to 19.7 GHz downlinks.</p> |

| 30GHz | Applications | Other Information |
|--|--|--|
|  <p data-bbox="168 383 224 406">29.5</p> <p data-bbox="840 383 896 406">30.0</p> <p data-bbox="504 263 548 287">E → s</p> | <p data-bbox="1019 215 1288 311">This band is intended for use by interactive and ubiquitous un-coordinated terminals.</p> | <p data-bbox="1310 215 1601 263">29.5 to 30.0 GHz is an exclusive band.</p> <p data-bbox="1310 279 1601 375">Uplinks in the 29.5 to 30.0 GHz band are usually paired with 19.7 to 20.2 GHz downlinks</p> |

Receive Bands

| 4 GHz | Applications | Other Information |
|--|--|---|
|  <p>A diagram showing a single rectangular block representing the 4 GHz receive band. The block is bounded by 3600 on the left and 4200 on the right. Inside the block, the text "S→E" is centered.</p> | <p>FIXED SATELLITE: Downlink band mainly used for intercontinental television distribution (mainly digital), telephony and digital business links.</p> <p>MATV.</p> | <p>A variety of transponder bandwidth sizes from 36 MHz to 140 MHz</p> <p>3600 – 4200MHz is normally paired with 5850-6450MHz, shared with Fixed Links and local access radio, requires coordination/registration for protection.</p> |
| 11 GHz | Applications | Other Information |
|  <p>A diagram showing the 11 GHz receive band. It consists of two main sections. The first section is from 10.7 to 11.7 MHz, divided into four sub-blocks. The first and third sub-blocks are labeled "S→E" and "App 30B" below them. The second and fourth sub-blocks are also labeled "S→E". The second section is from 12.5 to 12.75 MHz, divided into two sub-blocks labeled "S→E" and "E→s".</p> | <p>10.7-11.7 mainly used for Direct to home television, ISP backhaul and Television distribution.</p> <p>12.5-12.75 used for the above and VSATs.</p> | <p>12.5-12.75 is normally paired with 14-14.25 GHz.</p> <p>10.7 – 11.7 GHz is shared with fixed links and requires coordination for protection.</p> |
| 18 GHz | Applications | Other Information |
|  <p>A diagram showing the 18 GHz receive band. It consists of two sub-blocks. The first sub-block is from 17.7 to 19.7 MHz, labeled "s→E". The second sub-block is from 19.7 to 20.2 MHz, also labeled "s→E".</p> | <p>Mainly intended for use by SOHO and ubiquitous terminals.</p> <p>19.7-20.2 is paired with 29.5-30 GHz for use by uncoordinated terminals</p> | <p>17.7 – 19.7 GHz is shared with Fixed Links and protection will only be provided to coordinated earth stations.</p> |

Further information:

Fixed Terrestrial & Satellite Links Unit

Wyndham House

189 Marsh Wall

London E14 9SX

Fixed Terrestrial & Satellite Links Unit Enquiry Point

Telephone (Direct Dialing)

☎: 020 7211 0300

Fax: 020 7211 0113

Website: www.radio.gov.uk

Notes

1. WT act Licences can only be issued for stations transmitting in the UK.
2. Site clearance is required for all transmissions in the earth to space direction.