## FORMULA FOR CALCULATING THE APPROPRIATE SUM FOR THE POINT TO POINT FIXED LINKS LICENCE

## PART 1

FORMULA

1. In this Schedule-
(a) "the appropriate sum" means the amount in pounds sterling, which is payable for a Point to Point Fixed Links Licence, calculated in accordance with the formula set out in paragraph 2; and
(b) "Availability" means the minimum percentage of time that the fixed link is capable of functioning as set out in the licensee's licence.
2. The formula is $A S=S p x$ Bwf $x$ Bf $x$ Plf $x$ Avfwhere-
" $A S$ " means the appropriate sum;
"Avf" means the Availability Factor, being the number in Column 2 of the table set out in Part 5 as determined by the Availability (in per cent) as set out in Column 1 of that table;
"Bf" means the Band Factor, being the number in Column 2 of the table set out in Part 2 as determined by the range of frequency band (in GHz ), if any, of a fixed link set out in Column 1 of that table in which the licensee's band falls as declared by the licensee on application for a licence;
"Bwf" means the Bandwidth Factor, subject to paragraph 3, being the number corresponding to the bandwidth (in MHz ) of a co-ordinated bi-directional fixed link (or a part thereof) as declared by the licensee on application for a licence;
"MPL" means the Minimum Path Length, being the number corresponding to the applicable (depending on the amount of data that can be transmitted over the bandwidth ("the data rate") or over the channel width for analogue systems) length of the path (in kilometres) specified in Columns 2 and 3 of tables 1 or 2 set out in Part 4 as determined by the range of frequency band (in GHz ), if any, of a fixed link set out in Column 1 of those respective tables in which the licensee's band falls as declared by the licensee on application for a licence;
"PL" means the Path Length, being the number corresponding to the distance (in kilometres) between two fixed points of the link as declared by the licensee on application for a licence;
"Plf" means the Path Length Factor, being the number in Column 2 of the table set out in Part 3 as determined by the relationship between the $P L$ and the $M P L$ as set out in Column 1 of that table; and
"Sp" means the Spectrum Price, being a fixed sum of $£ 88$ per $2 \times 1 \mathrm{MHz}$ bandwidth for each co-ordinated bi-directional fixed link.
3. Where the number of the bandwidth (in MHz) of a co-ordinated bi-directional fixed link (or a part thereof) as set out in the licensee's licence is less than 1.0, the number of the Bandwidth Factor shall be 1.0.

Status: This is the original version (as it was originally made). This

## PART 2

## BAND FACTOR

| Column 1: Range of frequency band (fb)(in <br> GHz) | Column 2: Band Factor |
| :--- | :--- |
| $1.35 \leq \mathrm{fb}<2.69$ | 1.0 |
| $3.60 \leq \mathrm{fb}<4.20$ | 1.0 |
| $5.92 \leq \mathrm{fb}<7.13$ | 0.74 |
| $7.42 \leq \mathrm{fb}<7.90$ | 0.74 |
| $10.70 \leq \mathrm{fb}<11.70$ | 0.43 |
| $12.75 \leq \mathrm{fb}<15.35$ | 0.43 |
| $17.30 \leq \mathrm{fb}<19.70$ | 0.30 |
| $21.20 \leq \mathrm{fb}<23.60$ | 0.30 |
| $24.50 \leq \mathrm{fb}<29.06$ | 0.26 |
| $31.00 \leq \mathrm{fb}<31.80$ | 0.26 |
| $31.80 \leq \mathrm{fb}<33.40$ | 0.26 |
| $37.00 \leq \mathrm{fb}<39.50$ | 0.26 |
| $49.20 \leq \mathrm{fb}<57.00$ | 0.17 |

## PART 3

## PATH LENGTH FACTOR

| Column 1: Relationship between PL and MPL | Column 2: Path Length Factor |
| :--- | :--- |
| MPL $\leq$ PL | 1 |
| MPL $>$ PL | Smaller of (MPL / PL) ${ }^{0.5}$ and 4 |

## PART 4

## MINIMUM PATH LENGTH

## Table 1

| Column 1: Range of <br> frequency band (fb)(in GHz) | Column 2: MPL (km) where <br> the data rate is $<2 \mathrm{MBit} / \mathrm{s}$ or, <br> for analogue systems, where <br> the channel width is $<2 \mathrm{MHz}$ | Column 3: MPL (km) where <br> the data rate is $\geq 2 \mathrm{MBit} / \mathrm{sor}$, <br> for analogue systems, where <br> the channel width is $\geq 2 \mathrm{MHz}$ |
| :--- | :--- | :--- |
| $1.35 \leq \mathrm{fb}<2.69$ | 0 | 30 |

Table 2

| Column 1: Range of frequency band (fb)(in GHz) | Column 2: MPL (km) where the data rate is $<140$ MBit/ s or, for analogue systems, where the channel width is $<$ 140 MHz | Column 3: MPL (km) where the data rate is $\geq 140 \mathrm{MBit} /$ $s$ or, for analogue systems, where the channel width is $\geq$ 140 MHz |
| :---: | :---: | :---: |
| $3.60 \leq \mathrm{fb}<4.20$ | 24.5 | 16 |
| $5.92 \leq \mathrm{fb}<7.13$ | 24.5 | 16 |
| $7.42 \leq \mathrm{fb}<7.90$ | 15.5 | 9.5 |
| $10.70 \leq \mathrm{fb}<11.70$ | 10 | 6 |
| $12.75 \leq \mathrm{fb}<15.35$ | 9.5 | 5.5 |
| $17.30 \leq \mathrm{fb}<19.70$ | 4 | 2.5 |
| $21.20 \leq \mathrm{fb}<23.60$ | 4 | 2 |
| $24.50 \leq \mathrm{fb}<29.06$ | 3 | 2 |
| $31.00 \leq \mathrm{fb}<31.80$ | 0 | 0 |
| $31.80 \leq \mathrm{fb}<33.40$ | 2 | 1.5 |
| $37.00 \leq \mathrm{fb}<39.50$ | 0 | 0 |
| $49.20 \leq \mathrm{fb}<57.00$ | 0 | 0 |

## PART 5

## AVAILABILITY FACTOR

| Column 1: The percentage of Availability | Column 2: Availability Factor |
| :--- | :--- |
| Availability $\leq 99.9 \%$ | 0.7 |
| $99.9 \%<$ Availability $<99.99 \%$ | $0.7+$ (Availability x $100-99.9) \times(0.3 / 0.09)$ |
| $99.99 \% \leq$ Availability | $1.0+$ (Availability $\times 100-99.99) \times(0.4 / 0.009)$ |

