Annex B **Specifications for a new radio link**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | Site A | | Site B | |  | Notes on completion for an assignment application |
| **Site data:** | | | | | | | |  |
| BAKOM Code | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | A) | Insert BAKOM code if site location already exists in database for point-to-point microwave radio links, e.g. BNTG, 2-MNOP |
| BAKOM name | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | A) | Insert BAKOM site name if site location already exists in database for point-to-point microwave radio links, e.g. BANTIGER S |
| Applicant’s Site code | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | C) | Site code may be an abbreviation or a number |
| Applicant’s Site name | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | Name or designation of site locations |
| Address / field name | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | Address of site locations or field names according to map 1:25‘000 |
| Postal zip code, place | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | Municipality of site locations, postal zip code, please refer to [www.post.ch/db/owa/pv\_plz\_pack/pr\_main?p\_language=en](http://www.post.ch/db/owa/pv_plz_pack/pr_main?p_language=en) |
| Canton | Country | \_\_ | \_\_\_\_\_ | \_\_ | \_\_\_\_\_ |  | B) | Canton and country of site locations (official abbreviations), e.g. ZH / SUI, -/D,-/ F,.. |
| Co-ordinates | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | Swiss national co-ordinates (CH1903, LV95) for nadir of antenna tower, e.g. 2600 000 / 1200 000, accuracy +/- 10 m according to map 1:25‘000, check co-ordinates with: <http://map.geo.admin.ch> |
| Height above sea level | | m asl | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | Ground level, height above sea level (asl) at nadir,  accuracy +/- 5 m according to map 1:25‘000 |
| Joint use of site (third parties), site sharing | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | C) | Is this site location used also by other operators, which ones ? |
|  | |  |  | |  | |  |  |
| Distance | | km | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |  | Path length, distance between both site locations, e.g. 15.123 km |
| Frequency band | | GHz | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |  | Selected frequency band depends on path length and transmission rate according to [*RIR 0302-nn*](http://www.ofcomnet.ch/cgi-bin/rir.pl?id=0302) |
| **Antenna**: | | | | | | | | Please refer also to [*RIR 0302-nn*](http://www.ofcomnet.ch/cgi-bin/rir.pl?id=0302) *Pt. 11* |
| Manufacturer | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  | Name of manufacturer |
| Type | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  | Exact type designation |
| RPE Nr. | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  | Exact manufacturer’s designation of RPE (radiation pattern envelope) |
| Diameter | | m | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | Diameter of antenna |
| Gain | | dBi | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | Midband antenna gain, typical value |
| Half power beam width | | ° | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | Angle relative to main beam axis between the two directions at which the co-polar pattern is 3 dB below the value on main beam axis |
| Height above ground | | m | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |  | Height of antenna above nadir (height of building and/or tower), accuracy +/- 1 m |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Equipment**: | | | | | | | Please refer also to [*RIR 0302-nn*](http://www.ofcomnet.ch/cgi-bin/rir.pl?id=0302) |
| BAKOM Code | |  | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | A) | Insert BAKOM Code if link equipment is already in database of BAKOM, e.g. ABCD22C15S |
| Manufacturer | |  | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | Name of manufacturer |
| Type | |  | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | Exact type designation and name of equipment family |
| Bandwidth | Modulation | MHz | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | B) | Bandwidth, e.g. 13.75 MHz, 14 MHz, 27.5 MHz,  Modulation, e.g. 4-QPSK, 32-TCM, 128-QAM |
| Data rate | | Mbit/s | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | Transmission rate in Mbit/s, e.g. 155.0 |
| TX power min. | max | dBm | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | B) | Minimal and maximal TX power, typical values |
| ATPC Range | | dB | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | Control range of ATPC |
| BER 10-3 | BER 10-6 | dBm | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | B) | RX thresholds for BER 10-3 and BER 10-6, typical values |
| kTBF | | dBm | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | RX noise floor, typical value |
| Noise figure | | dB | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | B) | Noise figure of the RX, typical value |
| **Link data:** | | | | | | | Please refer also to [*RIR 0302-nn*](http://www.ofcomnet.ch/cgi-bin/rir.pl?id=0302) |
| Frequency  Polarization | | | MHz | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | D) | Desired operation frequency and polarization, will be taken into consideration for frequency assignment, e.g. 12‘345.6789 MHz / H |
| TX power reduction | | | dB | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | D) | Reduction of max. TX power, necessary for operation |
| ATPC | | | dB | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | D) | ATPC range required for operation of link |
| Losses TX | | | dB | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Insert losses TX-side caused by couplers, waveguides, a.s.o. |
| Losses RX | | | dB | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | Insert losses RX-side caused by couplers, waveguides, a.s.o. |
| ACM, Reference Mode | | |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  | If adaptive modulation is used please insert Reference Mode, e.g. 16-QAM |
| Max EIRP | | | dBm | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | C) | Max. radiated power in case of worst rain weather conditions |
| Nom. P RX | | | dBm | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | C) | Nominal RX power at clear weather conditions, corresponds with max. ATPC or min. P TX, refer also to [*RIR 0302-nn*](http://www.ofcomnet.ch/cgi-bin/rir.pl?id=0302) *item 11.* |
| Remarks: | | | | | | |  |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | |  |

**Please fill in all fields,** further explanations:

1. insert information already delivered to BAKOM
2. insert information if not already delivered to BAKOM
   * 1. *For new antennas complete information are required according to:*  *Microwave Antennas, Demand on technical specifications*
     2. *For new Radio equipment complete information are required according to: Microwave Radio Equipment, Demand on technical specifications*
3. information desired but not necessary.
4. Fill in desired dates for link operation but they are definitively set at the frequency assignment according to the results of interference power calculation. These results are used for the “Description of radio link network”.