**Comments on ECC Deliverable**

**“Draft CEPT/ECC Report 358”**

**1 Sources**

**Administration/Company/Entity:   
Finnish Transport and Communications Agency Traficom (abbreviation "FIN")**

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**2 General Comments**

It is preferable that this new ECC Report 358 will be approved at next ECC PT1 meeting for final adoption at ECC in June.

In general, we also agree with the content of the ECC Report 358, however you can find some specific comments below.

**3 Proposals related to the ECC Deliverables**

**Note:** Contributors shall use the following table to provide comments. It is also encouraged to provide as an annex a separate document showing the proposals with track changes. Minor editorial corrections do not need to be recorded in the table. The table is used in the resolution meeting to record how each proposal is addressed.

*The* following information must be included.

* **Comment number**: Sequential numbering of comments in the format “XX/1”, “XX/2” etc, where “XX” is the organisation name or a suitable abbreviation. Administrations may use CEPT country codes
* **Section number/Clause**: Relevant section number of the deliverable, use numbers where applicable e.g. “1.1”, “A1.4”, “List of abbreviations”
* **Paragraph/Figure/Table**: Paragraph number in section, e.g. “1”,”2”.. or Figure/Table, e.g. “Figure 1”, “Table 2”
* **Type of comment**: “General”, “Technical” or “Editorial” depending on the nature of the proposed changes
* **Comment**: Background/justification for proposed changes
* **Proposed change**: Proposed modifications shown in revision marks where possible. For more complicated changes (e.g. proposed deletion/addition of whole sections) or changes to tables it is sufficient to refer to the annex including the changes

| **Comment number** | **Section number**  **Clause** | **Paragraph**  **Figure**  **Table** | **Type of comment**  (General,  Technical or  Editorial) | **Comment** | **Proposed change** |
| --- | --- | --- | --- | --- | --- |
| FIN/1 | 0 Executive summary | Synchronisation of WBB LMB | General | The paragraph defines that two WBB LMP technologies have been considered. One based on 3GPP specs. and one based on DECT-2020 NR. Then it should be clarified here, that synchronisation. can only be supported for WBB LMP NETWORKS that are based on 3GPP specs not just different WBB LMP. | While both technologies can support unsynchronised operation, synchronisation between different WBB LMP networks can be only supported for WBB LMP networks based on 3GPP technical specifications. |
| FIN/2 | 0 Executive summary | Power levels and antenna heights studied for WBB LMP | General | Add "base stations" in the first sentence to clarify that the power levels indicated apply to BS. | For the purpose of studies, the following maximum power levels for 3GPP WBB LMP base stations have been defined: low power with 31 dBm/100 MHz EIRP and medium power with up to 49 dBm/100 MHz or up to 51 dBm/100 MHz EIRP. |
| FIN/3 | 0 Executive summary | Power levels and antenna heights studied for WBB LMP | General | Clarification in the third sentence, that in DECT, there are no distinction between BS and MS. | All DECT-2020 NR devices are the same, i.e., there is no distinction between 'base station' equipment or 'user device' equipment and the power level is 23 dBm EIRP with a channel bandwidth of 6.912 MHz. |
| FIN/4 | 0 Executive summary | Power levels and antenna heights studied for WBB LMP | General | Modify the last sentence to indicate that the 10 m antenna height applies also to DECT equipment. | For studies involving WBB medium power base stations, a range of antenna heights, up to 30 m above the ground, was studied and for studies involving outdoor WBB low power base stations and DECT-2020 NR, a maximum antenna height of 10 m above ground was studied. |
| FIN/5 | 0 Executive summary | Studies on WBB LMP networks with no synchronisation to other WBB LMP nor to MFCN | General | Clarification for the reason on unsynchronous operation in the first sentence of first paragraph. | For the various type of use-cases there may be various needs of UL/DL resources and different technologies resulting in unsynchronised operation. |
| FIN/6 | 0 Executive summary | Studies on WBB LMP networks with no synchronisation to other WBB LMP nor to MFCN | General | Provide description of study results between WBB LMP networks in the second paragraph. | Indoor-only, outdoor-only and outdoor/indoor deployment scenarios have been considered. The analysis of in-band and adjacent band operation demonstrate the feasibility of unsynchronised WBB LMP operation in the frequency band 3.8-4.2 GHz. Study results are presented in the form of separation distances necessary to obtain defined I/N protection criterion and uplink throughput loss. One study also proposed field strength values not to be exceeded at the WBB LMP local area network licensed area edge for co-channel and adjacent channel cases for consideration by national regulators. |
| FIN/7 | List of abbreviations |  | Editorial | There is no need to put low/medium power into parenthesis.  The terminology is clearly defined int the Section 1 first paragraph. WBB LMP equals "Terrestrial wireless broadband systems providing local-area low/medium power network connectivity". | Terrestrial wireless broadband systems providing local-area (i.e. low/medium power) network connectivity 🡪 Terrestrial wireless broadband systems providing local-area low/medium power network connectivity  Proposal to delete parenthesis (i.e. ) See above. |
| FIN/8 | 2.1.1 Synchronised operation |  | General | It is better to use wording that reflects clearly to the common phase lock reference like used in ECC Report 296 and ECC Recommendation (20)03. | … involved as well as synchronising the beginning of the frame across all networks. 🡪 involved as well as synchronising the beginning of the frame across all networks i.e., a common phase clock reference. |
| FIN/9 | 2.1.2 Unsynchronised operation |  | General | Also, here it is necessary to say clearly that in this operation mode a different phase clock is used. | This might happen if the TDD networks either do not align all DL and UL transmissions or do not synchronise at the beginning of the frame i.e., different phase clock reference. |
| FIN/10 | 2.1.4 Semi-synchronised operation with DL to UL modifications for WBB LMP | Last paragraph | General | Again, here it is necessary to add text on the phase clock. | It should be noted that semi-synchronisation is realized on the same way as synchronised operation and simply requires setting the corresponding network parameters related to the DL to UL modifications in the frame structure of the WBB LMP. A common phase clock reference, as for synchronised operation is required. |
| FIN/11 | 3.1.1 Fixed satellite service |  | Editorial | First two paragraphs are not needed, too promotional text. See FS Sections for comparison. Also, third paragraph should be aligned more to follow style in FS section. | Delete two first paragraphs and rephrase third paragraph.  FSS has a co-primary allocation in the 3.8-4.2 GHz frequency band. This frequency band provides wide geographic coverage over continents and resistance to rain fade. This band is used for services provided to inter-tropical regions, and many earth stations are located in Europe for inter-continental communications. Applications include connectivity for enterprises and public institutions, mobile backhauling, and video contribution and distribution. |
| FIN/12 | 3.1.3 VLBI (Very Long Baseline Interferometry) stations | First paragraph | General | Finnish RAS community proposed to add Metsähovi in Finland also into list of RAS stations. Where such measurements are done. | (Wettzell in Germany, Ny-Ålesund in Norway, Flores and Santa Maria in Portugal, Gran Canaria and Yebes in Spain, Onsala in Sweden, Metsähovi in Finland and Matera in Italy |
| FIN/13 | 3.2.1 MFCN |  | General | Make last sentence clearer | It is crucial, that the MFCN service is adequately protected. 🡪 It is crucial, that the MFCN service is adequately protected from possible interferences caused by WBB LMP deployments. |
| FIN/14 | 4.1 Use cases | Last paragraph | Editorial | Add frequency range 3.8-4.2 GHz in the end for improved readability. | ANNEX 3 presents an example use-case, requiring coverage of a given industrial site, demonstrating how different BS deployment configurations can affect the coverage and deployment complexity of WBB LMP networks in the frequency band 3.8-4.2 GHz. |
| FIN/15 | 4.2.1 3GPP 5G NR | Table 3 | General | Add other scenarios in Deployment scenario row, shouldn't it cover all cases e.g., Urban/Sub-urban/Rural, see Tables 32, 33 and 34. Now Medium power column is misleading, since other scenarios has been studied. | These can be shown as in Tables 32, 33 and 34. Rural outdoor/indoor etc. for LP and perhaps Rural, sub-urban, urban for MP column. |
| FIN/16 | 6.1.2 Study 2 | Table 29 and Table 30 | General | These tables relate to coordination between different local area networks, co-channel and adjacent channel. Tables don't necessarily relate to coordination between neighbouring countries, so why not be simple and use Co-channel instead of Non-preferential frequency and Adjacent channel instead of Preferential channel as in table 34.  Using two different terms confuse reader, since the notes below the tables describes exactly the same. | Align terminology with table 34. |
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