

AGREEMENT

between the administrations of

Poland and Germany

**on frequency planning and frequency usage in
border areas for terrestrial systems capable of
providing electronic communications services in the
frequency band 1452-1492 MHz**

(agreed by correspondence, October 2019)

1. Introduction

The frequency band 1452-1492 MHz is designated for terrestrial systems capable of providing electronic communications services according to

Commission Implementing Decision (EU) 2015/750 of 8 May 2015 on the harmonisation of the 1452-1492 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Union.

The administrations of Poland and Germany have agreed on the following frequency planning and frequency usage procedures.

2. Principles of frequency planning and frequency usage in border areas

The concept of equal access probability is a frequency planning principle enabling equitable coverage for two or more networks using the same frequency band with the same or different digital technologies in geographically adjacent areas without coordination. Operation of stations in the respective border area exceeding the specified field strength values after performing traditional frequency coordination would disturb the balance in the respective area and is therefore not desirable.

Furthermore this agreement is based on the principles of frequency usage and frequency coordination according to Recommendation ECC/REC(15)01 (see www.erodocdb.dk).

The field strength values refer to the mean field strength of each cell produced by the base station and are defined inside a reference frequency block of 5 MHz.

In case of other frequency block sizes $10 \times \log_{10}$ (frequency block size / 5 MHz) shall be added to the field strength values.

3. Technical provisions

3.1 The following mode of operation is considered:

SDL (supplemental downlink) is an unpaired frequency arrangement for additional base station transmission (downlink-only) in the band 1452-1492 MHz.

3.2 Base Stations in border areas may be operated if the produced field strength at a height of 3 m above ground does not exceed the following values:

65 dB μ V/m/5 MHz at the border line,
47 dB μ V/m/5 MHz at a distance of 6 km beyond the border.

3.3 In order to improve performance between LTE systems deployed in border areas administrations shall encourage operators to apply PCI code groups and other radio parameters in accordance with the relevant annexes of ECC/REC(15)01 especially in the case where centre frequencies of LTE signals in border areas are aligned.

4. Protection of other services

In the frequency band 1452-1479.5 MHz terrestrial digital audio broadcast transmitters (T-DAB) are still planned in Poland and the final decision concerning implementation of T-DAB in the L band has not been taken yet. Therefore Polish T-DAB allotments in accordance with the Maastricht Agreement and field strength thresholds required to protect the reception of these audio broadcast signals are given in the Annex. These field strength limits are to be kept in the respective areas of (base station downlink) co-channel and overlapping allotments in addition to the values specified in section 3.

The coordination trigger field strength for the protection of the digital audio broadcast at 10 m height is taken from the CEPT Report 54 and corresponds to 41 dB μ V/m/1.536 MHz at the allotment border.

5. Operators arrangements

Arrangements between operators may be concluded with the aim to enhance the efficient use of spectrum and coverage in the border areas. Such arrangements shall respect:

- the provisions laid down in the "Agreement between the administrations of the Czech Republic, Germany, Poland and Slovak Republic concerning the approval of arrangements between operators of mobile radiocommunication networks, Mainz, 29 May 2002",
- protection of users of communication networks from non-wanted international roaming,
- obligation to specify if the arrangements / agreed provisions are applied to individual sites or to the whole border.

6. Prediction of propagation

For field strength calculations the tool of the HCM Agreement shall be applied. Time probability in all calculations is 10 %.

7. Revision of the agreement

This agreement may be modified at a request of any of the signatory administrations where such a modification becomes necessary in the light of administrative, regulatory or technical development. Modification of the agreement shall be done by an amendment signed by both administrations concerned.

8. Withdrawal from the agreement

Any administration may withdraw from this agreement by the end of a calendar month by giving notice of its intention at least six months in advance. This does not affect the operation of stations already brought into use or coordinated under this Agreement. After such withdrawal, Administrations will exchange the list of stations already brought into use or coordinated under this Agreement.

9. Language of the agreement

This agreement has been concluded in English language.

10. Date of entry into force

The date of entry into force is the date of signature.

11. Signature of the agreement

This agreement exists in 2 equally authentic copies signed by correspondence.

For Poland

Paweł Skrzypkowski 21.10.2019r.
(signature, date)

For Germany

[Signature] 2019-10-15
(signature, date)

Annex: Protection of the reception of POL digital audio broadcast transmitters according to chapter 4.

Name of allotment	Channel [Block]	Frequency range [MHz]	Allotment ID	Service	Trigger level at the edge of allotment h=10 m [dB μ V/m/1.536 MHz]	Protected until (expected)
JELENIĄ GORA	LD	1457.328 - 1458.864	POL20033	T-DAB	41	30.06.2022
GORZWLKP	LE	1459.040 - 1460.576	POL20002	T-DAB	41	30.06.2022
ZIELONA GORA	LF	1460.752 - 1462.288	POL20018	T-DAB	41	30.06.2022
SZCZECIN	LG	1462.464 - 1464.000	POL20001	T-DAB	41	30.06.2022
LEGNICA	LG	1462.464 - 1464.000	POL20034	T-DAB	41	30.06.2022
SZCZECIN	LN	1474.448 - 1475.984	POL30016	T-DAB	41	30.06.2022
ZIELONA GORA	LI	1465.888 - 1467.424	POL30004	T-DAB	41	30.06.2022
WROCLAW	LO	1476.160 - 1477.696	POL30001	T-DAB	41	30.06.2022

Poland will inform Germany as soon as an audio transmitter has been switched-off.