CEPT CURRENT WORK ON HIGHER POWER WAS/RLAN IN THE 6GHZ LOWER BAND USING A DYNAMIC SPECTRUM USAGE COORDINATION

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1. CEPT (European Conference of Postal and Telecommunications Administrations)

www.cept.org/ecc

ECC (Electronic Communications Committee)

All ECC groups

ECC ✓

ECC SG
- ECC-ETSI
- ECC-EC
- ECC-US-CA

ECC PT1 ✓

CPG
- CPG PTA
- CPG PTB
- CPG PTC
- CPG PTD
- Coordination team
- NOW4WRC23
- WRC23 Coordination
- HoD-CPG23

WG NaN
- NaN1
- NaN2
- NaN3
- NaN SFG
- NaN CFG

WG FM ★ ✓
- EFIS/MG ✓
- SRD/MG ✓
  - CG UWB
  - CG WPT
  - CG PM ✓
  - CG SRR
- FM 22
- FM 44
- FM 51
- FM 56
- FM 58
- FM 59 ✓
- FM 60
- FM 61 ✓
- FM Radio Amateur FG
- CG-FS ✓

WG SE
- STG
- SE 7 ✓
- SE 19
- SE 21
- SE 24
- SE 40
- SE 45 ★ ✓

Non-ECC

Closed Groups Page

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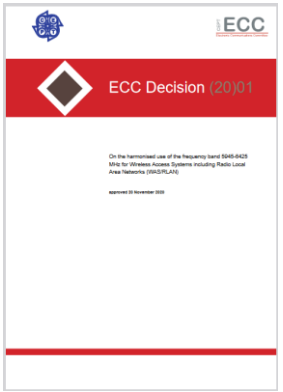
2. Current European harmonised regulatory framework for WAS/RLAN 6 GHz lower band (5945-6425 MHz)

ECC Decision (20)01 on the harmonised use of the frequency band 5945-6425 MHz for Wireless Access Systems inlcuding Radio local Area Networks (WAS/RLAN)



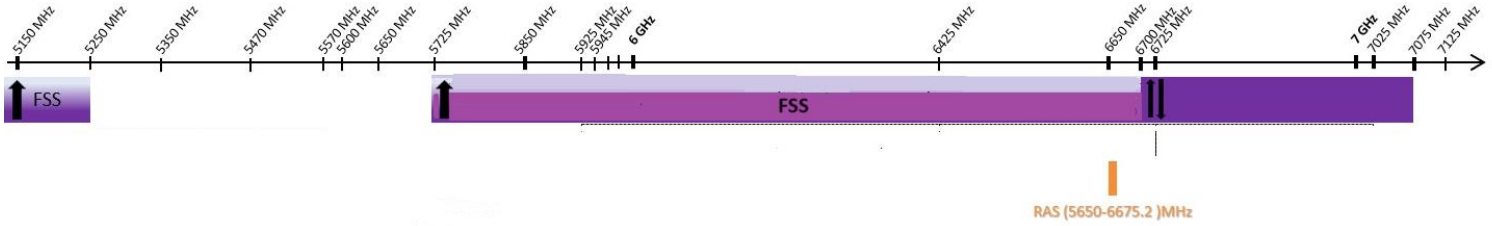
- LPI (Low Power Indoor) : 200 mW e.i.r.p – indoor use only
- VLP (Very Low Power) : 25 mW e.i.r.p - indoor and outdoor use

Related ECC Reports:

ECC Report 302 – Sharing and compatibility studies related to WAS/RLAN in the frequency band 5925-6425 MHz

ECC Report 316 - Sharing studies assessing short-term interference from Wireless Access Systems including Radio Local Area Networks (WAS/RLAN) into Fixed Service in the frequency band 5925-6425 MHz

WAS/RLAN 6GHz (5945-6425 MHz) harmonised framework in Europe - Incumbents



ITS – Intelligent Transport System - harmonised in Europe
ECC/DEC/(08)01
- Safety related ITS (5875-5925) MHz
- Safety related Urban Rail ITS – CBTC (5925-5935) MHz

WAS/RLAN 6 GHz (5945-6425 MHz) harmonised in Europe
ECC/DEC/(20)01
- *Low Power Indoor* (LPI) : 200 mW (indoor)
- *Very Low Power* (VLP) : 25 mW (portable)

(+ max PSD in 1 MHz BW, max OOB < 5935 MHz)

High power devices at 6GHz lower band - Antecedents in ECC work

ETSI TR 103 534 v1. 1.1 (2018-10) SRdoc WAS/RLAN in the band 5925-6725 MHz

- EIRP up to 1W (indoor and outdoor use)

ECC Report 302 Sharing and compatibility studies related to Wireless Access Systems including Radio Local Area Networks (WAS/RLAN) in the frequency band 5925-6425 MHz - EIRP up to 1W (outdoor use) was considered in this Report

Need of set out restrictions for the coexistence with:

- Fixed Satellite Service (FSS) - In band
- Fixed Service (FS) – In band
- Intelligent Transport System (ITS)
- Communication CBTC – In band and in adjacent band

CEPT Report 73 Report A: Assessment and study of compatibility and coexistence scenarios for WAS/RLANs in the 5925-6425 MHz

"…future investigations may include innovative sharing solutions for geographical protection of incumbents systems."

"Based on this risk of interference, the feasibility of outdoor WAS/RLAN deployment and high-power WAS/RLAN access points (APs) would require additional studies to address the interference to the incumbent systems, and any additional work to address the feasibility of these deployments could be studied further under a separate ECC deliverable."

High power WAS/RLAN at 6GHz lower band is not currently harmonised in Europe

3. Current CEPT work on High power devices at 6GHz lower band

- High power device: up to 4W e.i.r.p.

Work Item	Subject	Deliverable	Target Date
SE45_05	Higher power Wireless Access Systems including Radio Local Area Networks (WAS/RLAN) with up to 4 W e.i.r.p. in the 5945−6425 MHz frequency band to enable dynamic spectrum access coordination	ECC Report	May 2024*
FM61_03	Higher power Wireless Access Systems including Radio Local Area Networks (WAS/RLAN) including the use of equipment with up to 4W e.i.r.p. in the 5945-6425 MHz frequency band using a dynamic spectrum usage coordination	Other	June 2024*

Technical assessment

Regulatory framework development (depending on administrations decision)

* Probably the target date of these WI will be extended

Technical assessment at Project Team SE45

SE45_05 : Higher power Wireless Access Systems including Radio Local Area Networks (WAS/RLAN) with up to 4 W e.i.r.p. in the 5945−6425 MHz frequency band to enable dynamic spectrum access coordination

Scope:

Study technical conditions to enable the possible implementation of a dynamic spectrum access coordination function for WAS/RLANs in the 5945-6425 MHz frequency band, beyond what is permitted under ECC Decision (20)01.

The work should cover the possible use of WAS/RLAN equipment in a range of power levels up to 4 W e.i.r.p. and should consider the protection requirements of incumbent services in the 5945-6425 MHz frequency band (FS, FSS) and in adjacent bands (RAS, CBTC, Road ITS). The analysis should consider the aggregate effects of this additional terrestrial use along with the protection requirements of FSS uplink.

Technical assessment - Project Team SE45

This work should be based on the conclusions of ECC Report 302 as a starting point. The technical studies should aim to clarify suitable:

- Protection criteria
- Propagation models
- Necessary information on stations of incumbent services to be protected

The work should also consider the technical characteristics of current equipment up to 4 W e.i.r.p. used in other Regions outside Europe and their applicability.

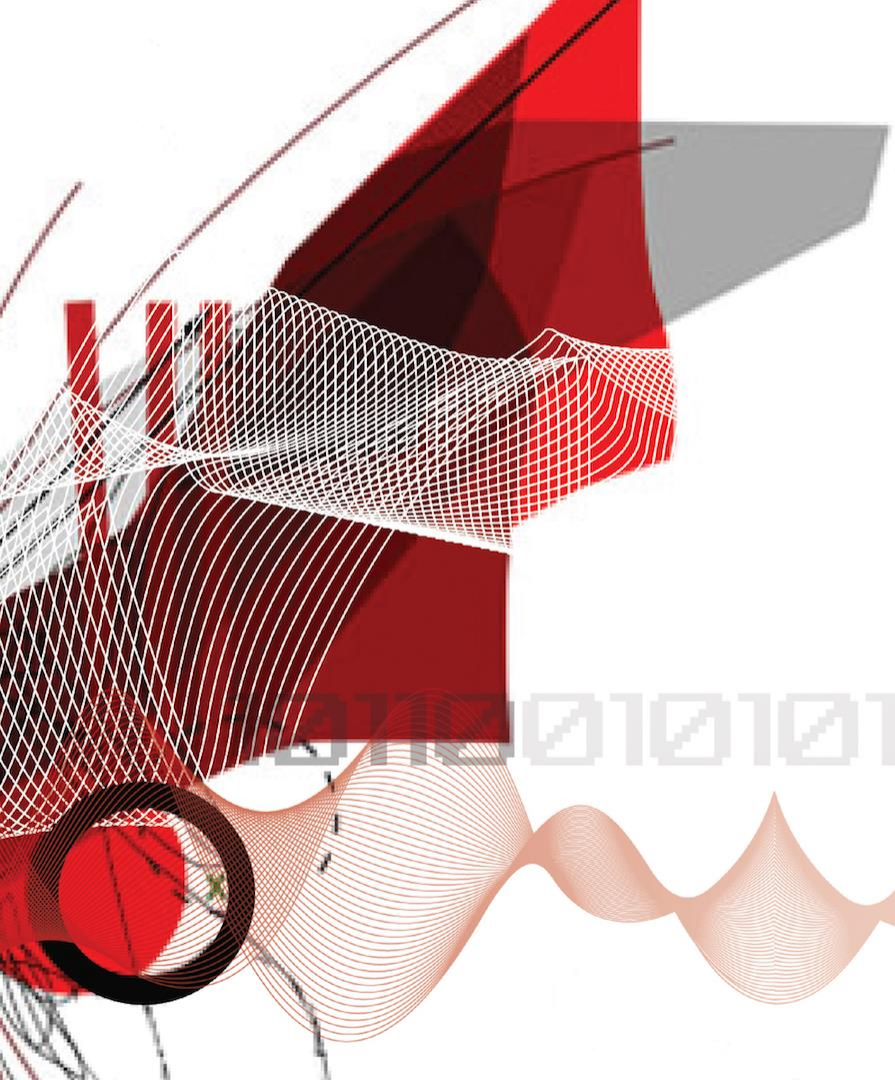
Possible work on the development of regulatory framework – Project Team FM61

FM61_03 : Higher power Wireless Access Systems including Radio Local Area Networks (WAS/RLAN) including the use of equipment with up to 4W e.i.r.p. in the 5945-6425 MHz frequency band **using a dynamic spectrum usage coordination**

Scope:

Study the feasibility of introducing a dynamic spectrum access coordination function under which WAS/RLAN up to 4W could operate, while ensuring the protection of incumbent services (including their possible future deployment) in the 5945-6425 MHz frequency band and in adjacent bands. This work will include:

- Define the technical and operational requirements for a dynamic spectrum access coordination function that enables an efficient and safe sharing between high power output RLAN and existing services (in band and in adjacent bands)
- Based on the results of compatibility and coexistence studies, propose technical conditions for high output power RLAN that ensure the protection of existing services (in band and in adjacent bands)
- Propose a **regulatory framework to enable European and/or national implementation**
- **Issues related to cross border coordination**



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