

Wireless Local Area Networks (WAS, WLAN, RLAN)

Information of the Austrian
Telecommunications Authority

Austrian Ministry for Transport, Innovation and Technology
Section III, Group "Telecommunication - Postal Services"
Redetzkystraße 1, 1030 Vienna
www.bmvit.gv.at/en

Date: September 2012 (revised)

General information

In accordance with relevant European regulations, a general licence was granted in Austria for the use of equipment for wireless local area networks (WAS *Wireless Access Systems*, WLAN *Wireless Local Area Networks*, RLAN *Radio Local Area Networks*), which comply with the technical parameters laid down in the Radio Interface Description FSB-LD061 and Class 1, Sub-class 22 and Sub-class 54. In addition, for certain similar applications the Radio Interface Description Class 1, Sub-class 43 (Non-specific short-range devices applications in the 5.8 GHz frequency band) may be useful.

The Radio Interface Descriptions can be found under the following link:

<http://www.bmvit.gv.at/telekommunikation/marktueberwachung/fsb/index.html>

http://ec.europa.eu/enterprise/sectors/rte/documents/index_en.htm#h2-2

Moreover it should be noted that no guarantee can be given concerning certain security aspects.

Wireless LAN Equipment

operating in the 2.4 GHz frequency band

"RLAN" may operate in accordance with Sub-class 22 in the 2400–2483.5 MHz frequency band. The applicable standard ETSI EN 300 328 was published in the Official Journal of the European Communities as a harmonized standard. The maximum equivalent isotropically radiated power (e.i.r.p.) is restricted to 100 mW and is mandatory for "access points" as well as for "client stations".

It should be noted that the 2.4 GHz frequency band is not exclusively used for operation of RLAN. Rather, this frequency band is also used by other radio applications (Bluetooth, Telecommand, movement detection etc.).

In order to take care for the interference-free operation of other radio equipment operating in the same frequency band the equivalent isotropically radiated power may not be exceeded, even if antennas with high gain are used. RLAN devices shall also have implement an adequate spectrum sharing mechanism, e.g. LBT (Listen Before Talk), DAA (Detect And Avoid), or similar. Such a mechanism will allow a joint and equal use of the radio spectrum by the various technologies and applications which currently exist in the market.

Relevant information concerning the various radio systems using this frequency bands are available in the frequencies utilisation ordinance of the Austrian Minister of Transport, Innovation and Technology, Federal Law Gazette II No. 307/2005 as amended.

<http://www.bmvit.gv.at/telekommunikation/recht/aut/verordnungen/fnv.html>

In addition, the 2.4 GHz frequency band is used by ISM applications such as microwave ovens. **Therefore, the interference-free operation of RLAN cannot be guaranteed.**

operating in the 5 GHz frequency band

"WAS/RLAN" may operate in the 5150–5350 MHz frequency band in accordance with the Radio Interface Description FSB-LD061 and in the 5470–5725 MHz frequency band in accordance with the Radio Interface Description Sub-class 54. The applicable ETSI standard EN 301 893 was published in the Official Journal of the European Communities as a harmonized standard. This standard contains provisions for the maximum radiated power and a Dynamic Frequency Selection (DFS) mechanism in the various frequency bands to protect interference-free operation of other radio equipment operating in the same frequency bands.

The Radio Interface Description FSB-LD061 only allows the "indoor" use of „WAS/RLAN" in the frequency band 5150–5350 MHz with RF-radiated power of 200 mW max. mean e.i.r.p.

The Radio Interface Description Sub-class 54 allows the "indoor" as well as the "outdoor" use of „WAS/RLAN" in the frequency band 5470–5725 MHz with RF-radiated power of 1 Watt max. mean e.i.r.p.

In order to enable the interference-free operation of radar systems which use partly the same frequency band, the maximum e.i.r.p. is mandatory and may not be exceeded, even if antennas with high gain are used. Additionally a Dynamic Frequency Selection (DFS) mechanism should be mandatory implemented. On the other hand, WAS/RLAN shall not claim protection from interference caused by radar applications.

Provision of communications services over wireless networks

Provision of third-party traffic is subject to §§ 14ff of the Telecommunication Law 2003 (TKG 2003 as amended). These provisions are also applicable if WAS/RLAN are used for service provision. Accordingly, provision of communication services shall be notified to the Regulatory Authority (§ 15 TKG 2003 as amended).

Furthermore, the Commission Recommendation of 20 March 2003 on the harmonisation of the provision of public R-LAN access to public electronic communications networks and services in the Community (No. 2003/203/EC) may be of interest.