



WiFi spectrum

open wireless network of Slovenia

<http://wlan-si.net>

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wlan slovenija

WiFi

Wireless LAN networking.

Standards by IEEE:

802.11b - 18Mbps

802.11g - 54Mbps

802.11n - 320Mbps - MIMO

802.11a - 54Mbps

Standards in development:

802.11? - gigabit WiFi (60GHz band)

Glossary:

EIRP: Equivalent isotropic radiated power

dBm: power in dB compared to 1mW

10dBm = 10mW, 20dBm = 100mW, 30dBm = 1W



EU standard:

2 400 MHz to 2 483.5 MHz - 20dBm

5 150 MHz to 5 350 MHz - 23 dBm - 10 dBm/MHz

5 470 MHz to 5 725 MHz - 30 dBm - 10 dBm/MHz - DTF

ETSI EN 301 893

ETSI EN 300 328



Issues:

EIRP limit affects long range point-to-point links.

2.4GHz spectrum is overcrowded.

60GHz band not available yet



Suggestions:

Narrow-beamwidth links should have higher EIRP limit.

Allocation of additional frequencies.

Compliance with worlds standards.



Internet neutrality.

Data retention.

Three strikes.

ACTA, SOPA, HADOPI...



Governments can help.

Promote community networks.
Make government infrastructure available.
Co-operation, legislating best-practices.



Alternatives.

Laser links .

LED links (open source project RONJA).

Community ethernet, fiber.