

Improving the International Spectrum Regulatory Framework

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Facilitating the New Paradigms While Protecting Incumbents

ITU-R Study Group 1

- Short-range devices
- Ultra-wideband devices
- Passive services

Short-Range Devices

- Study Group 1 addressed short-range devices in Rec. ITU-R SM.1538
- Approved in 2001 and revised in 2003
- Defined for purposes of the Recommendation as radio transmitters that “have low capability of causing interference to other radio equipment”
- Share spectrum with allocated radiocommunication services
- Generally cannot claim protection from interference
- SM.1538 recommends minimal restrictions on their operation
- 70-page Recommendation provides frequency bands and extensive descriptions and characteristics
- ITU-R role has been to publicize SRD use

Ultra-Wideband Devices

- Subject of studies in Task Group 1/8
- UWB tentatively defined as $B > 500$ MHz or 20% of f_c
- TG 1/8 preparing four recommendations and one report
 - Characteristics
 - Measurement Techniques
 - National Spectrum Management Framework
 - Compatibility with Radio Services
 - Compatibility Report
- Bandwidth measured where emissions down 10 dB from maximum
- ITU publishing national approaches to UWB regulation

Passive Services

- Subject of studies in Task Group 1/9
- Three “passive” services
 - Earth exploration-satellite (passive) service
 - Space research (passive) service
 - Radio astronomy service
 - Typically from earth-based telescopes
 - Also space-based radio telescopes
 - Do not share well with others
 - Share perfectly with other passive services
- All emissions prohibited in No. 5.340 bands
- RR Appendix 3 limits unwanted emissions in spurious domain
- Resolutions 738 and 740 on WRC-07 agenda