

Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)

Submission Title: THz standardization activities at ITU-R

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Re: n/a

Abstract: ITU-R WP1A received a proposal of a new Study Question on “Technical and operational characteristics of the active services operating in the range 275-1 000 GHz”. ITU-R WP5C is developing a new ITU-R Report on “Fixed service use and future trends”. In addition to introduction of these contribution, THz standardization activities within ITU-R are briefly summarized.

Purpose: Informing 802.15IGTHz on recent THz standardization activities at ITU-R

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THz Standardization Activities at ITU-R

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THz related Working Parties (1)

- Working Party 1A (WP 1A) - Spectrum engineering techniques
 - Website: <http://www.itu.int/ITU-R/index.asp?category=study-groups&rlink=rwp1a&lang=en>
 - Responsible group on WRC-12 Agenda item 1.6
- Working Party 5C (WP 5C) - Fixed wireless systems; HF and other systems below 30 MHz in the fixed and land mobile services
 - Website: <http://www.itu.int/ITU-R/index.asp?category=study-groups&rlink=rwp5c&lang=en>
 - Study Question ITU-R 253/5 on Fixed service use and future trends
- Working Party 3J (WP 3J) - Propagation fundamentals
- Working Party 3M (WP 3M) - Point-to-point and Earth-space propagation

THz related Working Parties (2)

- Working Party 7C (WP 7C) - Remote sensing systems
 - Website: <http://www.itu.int/ITU-R/index.asp?category=study-groups&rlink=rwp7c&lang=en>
 - Concerned group on WRC-12 Agenda item 1.6
 - Published Report ITU-R RS.2194, “Passive bands of scientific interest to EESS/SRS from 275 to 3 000 GHz”

- Working Party 7D (WP 7D) - Radio astronomy
 - Website: <http://www.itu.int/ITU-R/index.asp?category=study-groups&rlink=rwp7d&lang=en>
 - Concerned group on WRC-12 Agenda item 1.6
 - Published Report ITU-R RA.2189, “Sharing between the radio astronomy service and active services in the frequency range 275-3 000 GHz”

THz related Question ITU-R

- Question ITU-R 264/4 on technical and operational characteristics of networks of the fixed-satellite service operating above 275 GHz; (WP4A)
- Question ITU-R 235-1/7 on technical and operational characteristics of applications of science services operating above 275 GHz;(WP7B/WP7C/WP7D)
- Question ITU-R 228-1/3 on propagation data required for the planning of radiocommunication systems operating above 275 GHz; (WP3M)
- Question ITU-R 253/5 Fixed service use and future trends; (WP5C)

Proposal on New Study Question

- Question ITU-R SM. [THZ], “Technical and operational characteristics of the active services operating in the range 275-1 000 GHz” was proposed at WP1A meeting on July 2012. (1A/25)
- This Question was proposed to study;
 - What are the technical and operational parameters, and the characteristics of active services in the frequency range 275-1 000 GHz.
 - Are sharing studies required for active services operating in the range 275-1 000 GHz?
- This proposal was liaised with the concerned Working Parties via liaison statement (1A/40) and will be redrafted at the next WP1A meeting according to their comments from the concerned Working Parties.
- Administrations interested in this Question are invited to review and input their comments.

Footnote 5.565 (WRC-12)

The following frequency bands in the range 275-1 000 GHz are identified for use by administrations for passive service applications:

The use of the range 275-1 000 GHz by the passive services does not preclude use of this range by active services.

Administrations wishing to make frequencies in the 275-1 000 GHz range available for active service applications are urged to take all practicable steps to protect these passive services from harmful interference until the date when the Table of Frequency Allocations is established in the above-mentioned 275-1 000 GHz frequency range.

All frequencies in the range 1 000-3 000 GHz may be used by both active and passive services. (WRC-12)

Question ITU-R 253/5

This Question was proposed to study;

What are the key trends and drivers of technologies and applications for the fixed service across the different FS bands over the 2013-2023 period and beyond, taking into account:

- deployment scenarios, propagation considerations, technology developments, capacity and spectrum requirements;
- the use of the higher millimeter wave frequency bands (e.g. above 60 GHz);
- the technical and operational requirements for fixed wireless systems operating in the higher millimeter wave bands, including high capacity, e.g. Gigabit-class, links?

DRAFT NEW REPORT ITU-R F.[FS USE-TRENDS] - Fixed service use and future trends

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