

RADIO SPECTRUM AND TECHNICAL STANDARDS ADVISORY COMMITTEE

**Update on the Development of
Multiple Gigabit Wireless Systems and Generic Short Range Devices
Operating in the 60 GHz Band**

Introduction

This paper provides updates to Members on the overseas development of Multiple Gigabit Wireless Systems (MGWS) and generic short range devices operating in the 57-66 GHz band (“the 60 GHz band”).

Background

2. At the 5th SSAC meeting of 12 September 2013, we introduced to Members under SSAC Paper 12/2013 the development of 60 GHz MGWS in the industry bodies (i.e. the WiGig Alliance which was merged with the Wi-Fi Alliance in March 2013, and the WirelessHD Consortium) as well as in the International Telecommunication Union (ITU) and the European and United States administrations. In addition to MGWS applications, the 60 GHz band can also be used by short range devices for non-specific applications.

Wi-Fi Alliance and WirelessHD Consortium

3. The Wi-Fi Alliance is now operating product certification programs to ensure the interoperability of Wi-Fi products from different vendors. Such programs will be extended to embrace 60 GHz WiGig products. According to the Wi-Fi Alliance, the WiGig certification program is scheduled to come into operation in 2015. As for the WirelessHD Consortium, it has been running a compliance testing program to verify the interoperability of WirelessHD products from different vendors since 2009. At present, there are however only seven product models certified to be WirelessHD-compliant as published on the website of the WirelessHD Consortium,¹ covering home cinema projectors and audio/video transceiver units.

¹ <http://www.wirelesshd.org/consumers/product-listing/>

Europe

4. As mentioned in SSAC Paper 12/2013, the European Conference of Postal and Telecommunications Administrations (CEPT) has allocated the band 57-66 GHz for deployment of wideband data transmission systems and recommended that the European harmonised standard EN 302 567 be used as the conformity standard. Most of the European countries, including France, Germany and the United Kingdom, have implemented the CEPT recommendations. The scope of EN 302 567 is to cover radio equipment for Wireless Access Systems (WAS)/Radio Local Area Networks (RLAN) operating at multiple gigabit data rates in the 60 GHz band, excluding equipment for outdoor fixed local area network extension or fixed point-to-point applications. The maximum power level and spectral power density allowed for WAS/RLAN equipment are specified in EN 302 567.

5. In addition to WAS/RLAN applications, the CEPT also allows the 57-64 GHz band to be used by generic short range devices but recommends more stringent control on the power level. The relevant European harmonised standard covering the generic short range devices operating in the 60 GHz band is EN 305 550. The European Telecommunications Standards Institute (ETSI) is now working on a revision of EN 305 550 to take account of the technical requirements recommended by the CEPT.

United States

6. The Federal Communications Commission (FCC) has allocated the band 57-64 GHz for unlicensed use under the provisions of the Code of Federal Regulations (CFR) Title 47 Part 15.255. Such use may include MGWS and short range applications, but equipment used on aircraft or satellites and field disturbance sensor (e.g. radars) not intended for fixed operations are explicitly excluded. For products allowed under CFR Title 47 Part 15.255, the FCC rules generally impose control on power levels with the emission limits similar to that of the CEPT/ETSI. But for fixed field disturbance sensors operating outside the ISM (Industrial, Scientific and Medical) band 61-61.5 GHz, the control on power levels is much more stringent.

Way Forward

7. In Hong Kong, the allocation of the 60 GHz band remains to be planned, except for the band 61-61.5 GHz which is allocated to radiolocation

and ISM on a primary basis. In considering the allocation of the 60 GHz band to services like MGWS and short range devices, OFCA will continue to keep in view the development of international standardisation for such services, the frequency planning and the regulatory arrangements in other administrations, as well as the availability of the relevant products on the mass market. Comments from Members about this subject are welcome.

Office of the Communications Authority
May 2014