

Experimental Description:

Developing 6G test and measurement technologies.

Keysight will design, develop, test, and demonstrate 6G electronic test and measurement technologies at our indoor facilities in Santa Rosa, CA; Santa Clara, CA; and Everett, WA.

The operating frequencies (275.5 - 330GHz) fall within the Spectrum Horizon framework.

All of the operational experiments will be conducted indoors at minimal power.

We are extremely flexible on the frequencies that we can use between 275.5GHz – 330GHz. We do not use the entire band, but frequencies allocated throughout that does not interfere or pose a problem for passive or active users.

Keysight Technologies continue to push technological boundaries in wireless communications. Frequency bands once thought of as unusable are now well within the range of modern communications systems. With the FCC's First Report and Order, FCC19-19, ET Docket No 18-21, adopted March 15, 2019, we take steps to provide new opportunities for innovators and experimenters to push those boundaries even further, and to develop new equipment and applications for spectrum between 95 GHz and 3 THz.

These frequencies — long considered to lie at the outermost horizons of usable radio spectrum —are becoming increasingly well-suited for the development and deployment of new active communications services and applications. The rules that the FCC adopted in the First Report and Order permits enhanced experimental licensing and unlicensed applications within this spectrum band as well as advancing the overall commitment to identify and make available unused and underused spectrum regardless of the frequency range.

Per the FCC Spectrum Horizon, to accelerate the development of new technologies in the spectrum range between 95 GHz and 3 THz, the FCC adopted a new subpart to the existing Part 5 Experimental Radio Service (ERS) rules for a new and unique license type—the Spectrum Horizons Experimental Radio license (or “Spectrum Horizons License”). Applicants for Spectrum Horizons Licenses may request authorization on any frequency within the 95 GHz to 3 THz frequency range. The FCC stated that they will not, by rule, preclude the use of any specific frequencies. By adopting this expansive approach to experimental licensing for these bands, the FCC will seek to foster an environment where innovators can develop new products and applications absent unnecessary limitations. Given the unique characteristics of these bands, the FCC stated they are hesitant to take any action that may stifle innovation or limit an applicant from developing new and novel methods for coexisting with existing services.