

Exhibit

Applicant seeks Special Temporary Authority (STA) to operate experimental 5G NR systems, operating on 39 and/or 28 GHz spectrum, at an event held at the Grand Wailea resort facilities located on 3850 Wailea Alanui Drive, Wailea, HI 96753. The STA is needed from November 1, 2018 to December 31, 2018.

The industry organization 3rd Generation Partnership Project (“3GPP”) has completed the R15 NR specifications in June 2018 which together with 3GPP final NR specifications in Release 16 will be submitted for consideration as an IMT 2020 Radio Interface Technology at the July 2019 ITU-R WP5D meeting. 5G systems will utilize advanced antenna technologies with beamforming and multiple in multiple out (“MIMO”) technology, as well as more efficient coding and modulation schemes. These technologies are expected to result in higher spectral efficiencies and reduced latency, enabling gigabit per-second (Gbps) mobile and fixed broadband services, significantly faster than today’s average 4G speeds using the Long Term Evolution (“LTE”) connections.

Applicant’s 5G demonstrations will involve communications between up to 3 fixed (FX) base stations and up to 10 user equipment (UE) units placed within 100 meters of the base station antennas. The base stations and the UE antennas will be all placed indoors with antennas at a height of less than 6 meters above the floor inside a building within the resort perimeter (the building is shown in the map below with a red dot). The base stations will have connectivity to internal servers and/or the Internet, to provide content over the 5G air interface for the purposes of these demonstrations. The UEs can provide services to various devices through Wi-Fi access points that are connected to the UEs via Ethernet cable.

The 5G air links provided through this STA will be used to demonstrate various applications that require very high speeds and very low latencies now made possible by 5G advanced wireless communication systems. The results will provide valuable information to users whose feedback could be used to enable product development and system optimization, as well as to improve future system standards and the deployment processes.



