

Exhibit

Applicant seeks a four (4) month special temporary authority (“STA”) to demonstrate the functionality and capabilities of fifth generation (“5G”) wireless communication systems, as well as the propagation characteristics of the signals operating in the 28 GHz and 39 GHz spectrum bands.

The industry standards organization, 3rd Generation Partnership Project (“3GPP”), has developed 5G standards, which facilitates the ability to develop and offer 5G services in 2018. 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 will result in higher spectral efficiencies, reduce latency to 1-5 milliseconds, and enable gigabyte per-second (Gbps) mobile and fixed broadband services, significantly faster than today’s average 4G speeds using long term evolution (“LTE) connections.

Applicant’s 5G demonstrations will involve communications between fixed (FX) base stations placed indoors in a room or open space located inside a building at 300 Reunion Blvd., Dallas TX, 75207. The building has concrete walls and windows with coated glass as shown below. The 5G wireless link will be established between the base station and a maximum of two units of mobile user equipment (“UE”) located in the same room or area, at a distance of about 10 meters apart. The base station and UE will be operated at 3 meters and 2 meters, respectively, above floor level. A channel sounder operating in the 28 GHz band will only transmit signals that are received in the same area to demonstrate the millimeter wave (mmW) propagation characteristics.

The demonstrations using this license will provide valuable information to potential users whose feedback on the perceived performance of services provided through these 5G systems will also enable future standards and system optimizations.



