

## **DESCRIPTION OF RESEARCH PROJECT**

Pursuant to Sections 5.3(j) and Section 5.61 of the Federal Communications Commission's rules, 47 C.F.R. §§ 5.3(j) and 5.61, CCO Fiberlink, LLC ("Charter"), a limited liability company and subsidiary of Charter Communications, Inc., seeks an Experimental License for 360 days, beginning August 15, 2019, or immediately upon grant, to test and evaluate mid-band coverage and capacity performance. As part of its efforts to lead the industry in broadband innovation, Charter intends to conduct fixed wireless experiments in the 3550 - 3700 MHz band. The proposed operations will advance Charter's understanding of 5G technology and network potential in mid-band spectrum and will advance the potential deployment of 5G fixed and mobile services.

Charter will conduct the proposed test using antennas at a location in the Park City, Utah area. These experiments will evaluate the 3550 - 3700 MHz frequencies and 5G technologies for their use in real-time communications in a low-latency environment. The tests will utilize fixed transmitters with a 2 km or smaller effective radius.

Due to limited use of the requested band in the proposed location, Charter does not anticipate that these experiments will cause harmful interference, and Charter will work closely with the equipment vendor to ensure no interference occurs.

Charter understands it must accept RF interference from any federal and non-federal incumbent users of this band and that all Charter operations will be on a secondary basis. With regard to existing users, Charter has confirmed there are no protected Fixed Satellite Service ("FSS") earth stations operating in the 3550-3700 MHz band in the areas in which Charter seeks to conduct testing. Charter is aware of the Spanish Fork City 3600-4200 MHz FSS earth station in Spanish Fork, UT (65 miles SW) and has verified all intended test operations are outside its coordination zone. All operations are well clear of the NTIA coastal exclusion zones, and a minimum of 439 miles from any of the three CBRS-protected Navy land-based RADAR sites.

Charter also identified all grandfathered 3650-3700 MHz "NN" Wireless Broadband Licensees with registered locations within 30 km of the requested testing areas and will coordinate individually to avoid impacting their existing operations.

Finally, as transmit levels of the proposed radios comply with approved CBRS band operations, and will be operated sequentially, Charter expects limited RF propagation distances as well as limited and localized aggregative contribution to the RF noise floor.