

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 Special Temporary Authority ("STA") for 180 days, beginning December 12, 2018, or immediately upon grant, to test and evaluate 5G C-band interference performance impact on the C-band satellite receivers. This effort is being done to collect preliminary data so that Charter can begin to understand the impact of C-band 5G waveform on C-band satellite receivers for the cable industry. This testing will help inform Charter about the potential to use this spectrum for 5G while protecting its existing video services.

Charter intends to conduct these tests in 3.7 GHz to 4.2 GHz. Charter plans to characterize the impact under all possible permutations of power, transmitter height, and location, and also quantify spatial and power isolation requirements between the 5G transmitter and satellite receiver. The proposed operations will advance Charter's understanding of the impact of wireless access technologies on satellite receivers and help find solutions to co-exist for both technologies in the C-band. The results will inform Charter's decision-making about future testing.

Charter will conduct the proposed outdoor testing within a radius of 2 miles from the specified fixed locations in the vicinity of Bowling Green, FL and Lake Wales, FL.

Protection against Interference

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 identifies a portion of the band being used for the proposed testing (3.7-4.2 GHz) is co-primary allocated for fixed satellite space to Earth operations. Charter has specifically selected these limited locations to avoid interference with existing operations, and will confirm that testing does not cause harmful interference to earth stations operating in these areas. Charter will conduct its tests between the hours of 7 a.m. and 7 p.m., and Charter personnel will be present at all times during the testing.

Contact Information

Point of contact for FCC licensing issues:

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Point of contact for questions about testing operations:

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The following individual will be available 24/7 during all testing and has authority and ability to immediately cease all operations:

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