Humatics Corporation
Attachment to Application for STA
File No. 0893-EX-ST-2018

NARRATIVE STATEMENT

Pursuant to Section 5.61 of the Commission's rules, 47 C.F.R. §5.61 (2016), Humatics Corporation ("Humatics") hereby respectfully requests special temporary authority ("STA") beginning June 30, 2019 to conduct testing of UWB equipment.

1) Dates of Operation:

Operation is requested for the 6 month period beginning June 30, 2019 to December 30, 2019.

2) Class of Station:

There will be both fixed and mobile transmitters used as part of the testing.

3) Location of Proposed Operations:

The entire operational area will be within 6.75 kilometers of the following coordinates (with a large portion of these operations occurring underground):

40° 38' 31.27" N; 73° 56' 53.87" W

4) Frequencies Desired:

3 to 5 GHz. Frequency tolerance is ± 1 ppm, which translates to ±4.2 kHz stability over temperature.

5) Power Levels:

P440HP with Broadspec Antenna = +2 dBm EIRP Mean = 1.58 milliwatts, 0.0 dBm transmit input power to antenna
P440FCC with Broadspec Antenna = -13 dBm EIRP Mean = 50 microwatts, -15.0 dBm transmit input power to antenna
P440HP with +8 dBi High Gain Log Periodic = +8 dBm EIRP Mean = 6.3 milliwatts, 0.0 dBm transmit input power to antenna

The transmit power of the P440 HP can be adjusted via software. While this software gain can be used to reduce power when above ground while still achieving the required performance, it is possible that the P440 HP radios

will be operated at their maximum power levels at all times for the experimental testing

6) Type of Emission, Modulation Technique, and Bandwidth Required:

The equipment used for testing will be ultrawideband (UWB) equipment with 2 gigahertz of bandwidth. The emission designator for equipment being tested is 2G00MXW.

7) Contact Information

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