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SENSUS
The Measure of the Future

October 7, 2019

Federal Communications Commission
Washington, DC

Subject: Question 7, File No. 0863-EX-CN-2019, Confirmation #EL166794

Dear Sir or Madam,

Sensus is a manufacturer of Smart Grid devices for Critical Infrastructure utilities around the world. We presently have over 8 million endpoints in operation in the United States, Canada and Europe, South America and Asia. Most of our North American endpoints operate in the 900 MHz band on Narrowband PCS and MAS channels, while equipment for many of our international customers operates in the 400 MHz band. All of these Smart Grid devices utilize GPS for both location and network timing.

Sensus develops and performs product testing in its Morrisville, NC location consisting of multiple adjacent buildings within an office park. As part of this development and end-to-end product testing, it is essential to test GPS timing and location aspects of the system. In order to obtain adequate indoor GPS signals for testing throughout the lab and development facility, Sensus has come to realize that it requires the use of GPS repeaters. As a result of company growth and a need for additional development and testing, Sensus will be expanding into a second lab in its 639 Davis Drive facility.

In 2017 Sensus was granted an experimental license under callsign WI2XTJ to operate the GLI Metro smart GPS amplifier system manufactured by GPS Source on the L1 channel to improve GPS signal levels within the 639 Davis Drive facility. This license was recently renewed for an additional 2 years. Last month, in September of 2019, Sensus was granted its second GPS experimental license to operate another GPS repeater at its testing facility at 633 Davis Drive under callsign WK2XKO.

Just as was done previously in both 639 and 633 Davis Drive buildings, Sensus would like to install a second GPS Source amplifier system in the 639 Davis Drive facility. The external antenna will be roof mounted, and fed through the roof with 30 feet of LMR-195 coaxial cable to a fixed indoor location in the center of the development and testing lab. An omnidirectional antenna will be installed at this ceiling location. The experimental testing facility is located within a full time Sensus only office building and is occupied by Sensus employees and a test manager during system operation. The system will be powered off during evenings and weekends and/or any time the system is not in use. Sensus leases and utilizes as office space for its employees all buildings immediately surrounding these test facility locations. Sensus will notify all potentially impacted employees, that GPS information may be impacted for periods of time due to this GPS re-radiation system.

The Sensus “Stop Buzzer” point of contact for this device is:

Richard Wittmer / System Test Lab Project Manager, Test Engineering

Richard.Wittmer@xyleminc.com

919-317-6285 (o) / 919-280-5017 (m)

If Richard is not available for any reason, a secondary “Stop Buzzer” point of contact is:

Jeff Wiggs / Sr. Software Test and Automation Engineer

Jeff.Wiggs@xyleminc.com

919-973-7443 (o) / 919-327-7521 (m)

If Jeff is not available for any reason, a tertiary “Stop Buzzer” point of contact is:

Keith Olschner / Sr. Software Test and Automation Engineer

Keith.Olschner@xyleminc.com

919-317-6129 (o) / 919-395-6545 (m)

As an additional emergency measure, Sensus has purchased and will deploy a Wi-Fi “smart” plug that will allow Richard, Jeff or Keith to remotely turn off the GPS repeater from their smart phones.

We respectfully request an experimental license in order that we may continue development and testing of these units in our new lab at the 639 Davis Drive, Morrisville, NC facility.

Please contact me if you have any questions regarding this matter.

Sincerely,

/ S /
Stanton B. Woodcock
Spectrum Manager