



Testing Tomorrow's Technology

June 26, 2018

Applications Examiner
Siemic

Subject: FCC Part 95H WMTS device Class 2 PERMISSIVE CHANGE for GE Medical Systems, Model 07APFH-AP, FCC ID: OU507APFH-AP

Murata Electronics North America is the designer and manufacturer of this product. GE Medical Systems Information Technologies, Inc. is the owner and installer and grantee of the product. This submission qualifies under the WMTS rules for 608-614 MHz operation. The system is basically a 15.247-type frequency hopping link with the typical Access-point talking to many remotes, topology. At the time of the submission the radio used a total of 32 channels in their hop-set ranging from 608.6656 to 612.898133 MHz.

Murata Electronics and GE Medical Systems Information Technologies, Inc. now request to add extra channels to this original filing for the following reason:

1. 608-614 MHz is a spectrum that has availability in hospital environments. For example GE Medical Systems Information Technologies, Inc. has found that many of the incumbent radios in the typical hospital installations occupy the middle of this band. This effectively leaves only the outer edges of the band for GE's system to operate. The 1.5 MHz sub-band operation required for all Part 95H certified products working in this band can sometimes be used to mitigate the problem. However Murata Electronics has a solution and that is to add channels near the band edges by reconfiguring the hop-set to more effectively utilize the spectrum near those edges and leave the incumbents to occupy the middle of the band. This way mutual interference will be avoided and the spectrum will be better shared. In order to add the additional channels, only the hop set will change; the actual hopping mechanism, acquisition technique, multiple access technique, etc. as outlined in the original submission will remain unchanged.

2. The original driver amplifier used in this WMTS device's transmitter chain went obsolete over 5 years ago. The manufacturer did an end-of-life purchase for the driver but that supply will run out in the near future. Given the long lifetime of this product, they had no choice but to replace the old driver with an equivalent part. The original driver amplifier was the UPC8204TK-E2-A. The new driver amplifier is the AN26018A. It has similar bandwidth, gain and output power characteristics as the part it is replacing. Passive components (capacitors, inductors and resistors) were changed for bias and matching. No additional hardware changes were made to this radio.

3. The antenna gains for the two antenna types previously certified with the module have been increased. For the monopole/omni directional antenna, the gain has been increased from 0 dBi to +2 dBi. For the patch antenna the gain has been increased from -2 dBi to +2 dBi.



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The test report shows that the product continues to meet the applicable subpart for CFR 47, Part 95H, WMTS device operating in the band 608-614 MHz.

See the test report and additional submittal exhibits for details.

Best Regards,

Sandi McEnery
Agent for GE Medical Information Systems Technologies, Inc.