

FCCOffice of Engineering and Technology - Certification

To whom it may concern:

The enclosed documents constitute a formal submittal and application for Equipment Authorization pursuant to Subpart Z of Part 90 of FCC Rules (CFR 47).

The hardware in the device is identical to the hardware in the GE MDS product certified under FCC ID E5MDS-MERCURY3650. This new application has an increased EIRP value based on minor changes to the measurement method used to determine the power spectral density. With the exception of the output power at the antenna terminal for the 1.75MHz channel bandwidth, the maximum output power at the antenna terminals has not been increased. However, as the power rating is listed on the grant as an eirp the increase in eirp requires a new product certification rather than a Class 2 permissive change.

Channel BW	E5MDS-MERCURY3650 EIRP	E5MDS-MERCURY3651 EIRP
1.75 MHz	0.933 W	1.585W
3.50 MHz	1.38 W	2.754W
5.00 MHz	2.041 W	3.981W
7.00 MHz	3.63 W	5.623W
10.00 MHz	5.011 W	5.248W
14.00 MHz	5.37 W	5.012W

Test data for spurious emissions, bandwidth and spectrum mask are being submitted form the original certification tests based on the fact that these measurements were made on all channels for all channel bandwidths with the device operating at the highest available power setting in the device (software setting 23), which has not changed. The power and associated power spectral density measurements were made on a second sample. The output power of the second was verified to be within the expected tolerances (+/-0.5dB) of the original sample prior to testing.

The system can also be configured with a WiFi module, approved under the FCC's modular approval process. As this module is not considered collocated (its antenna is always more than 20cm from the licensed antenna) the modular approval for the WiFI device continues to be valid and the host system is labeled with the appropriate verbiage (Contains FCC ID: VRA-SG9011028).

Elliott Laboratories, as duly authorized agent prepared this submittal. A copy of the letter of our appointment as agent is included with the application.

If there are any questions or if further information is needed, please contact Elliott Laboratories for assistance.

Sincerely,

Mark Briggs
Staff Engineer