

Mike Kuo

From: Rummel, Jeffrey [Rummel.Jeffrey@ARENTFOX.COM]
Sent: Monday, May 16, 2005 12:58 PM
To: Mike Kuo
Cc: David Noon; graeme.mitchell@groundprobe.com; Pat Bellett
Subject: GroundProbe Pty Ltd. FCC ID: S490305SSR01, Assessment NO.: AN05T4691, Notice#2

Attachments: M050232_Cert_Tx_R.PDF



M050232_Cert_Tx_
R.PDF (1 MB)

Mike:

In response to your e-mail dated May 11, 2005, in which you identified 4 additional issues relevant to the above-referenced application, the information below is provided. Once you have reviewed, please let me know if any additional questions remain, and what the current anticipated timeframe is for completion of the process.

Best regards,

Jeffrey Rummel

Question #1:

Output power: Based upon FCC test plan information with SSR radio specification provided, the rated output power is 30 mW and the peak max. output power is 60 mW. These two specified output power do not agree with measured output power as stated in the test report. The max. measured output power as indicated in the test report is 9mW, please explain the different in the rated output power and measured output power. Output power is part of radio specification will be listed on the FCC grant. The highest conducted output power must be confirmed.

Answer to #1:

Output power of the radar when gated is 10dBm +/- 2dBm consistent with the 9.10 to 9.56 dBm measured by the test house. Peak power will be 3dBm higher due to the 50% duty cycle. We request an amendment of the rated output power to 12dBm and peak to 15dBm. The 30 mW and 60 mW (peak) values were estimates at the time of GroundProbe's initial application for FCC licenses.

Question #2:

Emission Designator : Based upon FCC test plan information with SSR radio specification provided, the 99% Bandwidth is 105 MHz, but measured 99% Bandwidth is 96.5MHz. Please note : 99% Bandwidth is used as the necessary bandwidth in emission designator which is part of radio specification will be listed on the FCC grant. Emission designator must be confirmed.

Answer to #2:

105 MHz bandwidth (99% bandwidth) was GroundProbe's best estimate at the time of our initial application for FCC licenses, however we achieved much better spectral control than had anticipated. We request an amendment of the 99% bandwidth to be 98MHz.

Question #3: Measurement procedures: when the radiated spurious emission test is required and performed for licensed transmitter, the measurement procedure shall be used is TIA/EIA 603, ANSI C63.4 measurement procedure is not applicable to licensed transmitter. Based

upon TIA/EIA 603 standards, radiated spurious emission shall be measured with substitution method. As indicated in the test report, this procedure was not followed. Please redo radiated spurious emission tests with substitution method.

Answer to #3:

EMC Technologies has modified the report relating to the radiated spurious emissions (See attached document - Section 4.4, pp. 11-12 - containing a reference to the FCC publication relating to the field strength measurement method versus substitution method.)

Question #4: ELPRO Spread Spectrum Radio : Attached please find FCC authorized antenna on file with FCC. As indicated in the FCC database under FCC ID:O9PELPSS0D, only 1/2 wave dipole antenna with 2 dBi gain is authorized to use. For unlicensed transmitter, only same type (dipole) of antenna with equal or less antenna gain can be used. Yagi and collinear antenna are different type of antenna regardless the antenna gain of antenna with cable lost. In order for GroundProbe to use this spread spectrum radio, ELPRO must file a Class II permissive change to include yagi and collinear antennas so GroundProbe can utilize such antennas. If GroundProbe is using identical radio under FCC ID:O9PELPSS0D, only radiated spurious emission tests are required for Class II permissive change.

Answer to #4:

GroundProbe will use 1/2 wave dipole antennas with 2 dBi antennas.

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