Re. FCC ID:	**QLASH1GHZ**
Applicant:	**Mala GeoScience AB(publ)**
Correspondence reference number:	**26103 and 26102**
731 Confirmation number:	**EA827998**

Answers in bold.

1.

Please explain/correct the –35dB cable loss listed/used in all RMS measurements.

In all the tables in the report the cable loss is stated as a positive number. During the measurements above 1 GHz the values in column 'cable loss' is a result of loss measurement of the whole cable from antenna to the measurement receiver including a pre amplifier placed at the antenna. The result is a negative loss i.e. a gain.

2.

Please list the spectrum analyser used that is capable of RMS detection.

The spectrum analyzer used for the RMS measurements is listed under point 5.3.4 Instrumentation and is the Rohde & Schwartz FSP 40.

3.

The label(s) must include information per Section 15.19(a)3.

New document "Idlabel ver 2" with description "New idlabels and location" filed.

4.

What is the pulse width?

The pulse width is 1.1099 nS.

5.

Was the signal continuously transmitting at the pulse repetition rate stated or was the signal transmitted periodically(gated or burst transmission)?

The signal was transmitted continuously.

6.

Internal and external photos of the transmitter control unit(CUII).

The CUII(control unit) is a class A device that is used <u>with</u> the system.
It's not a <u>part</u> of the UWB unit.

7.

Photos of both sides of the PCB boards. The photo(picture 6) of the transmitter was unclear.

New document "Internal photos ver 2" with description "New internal photos" filed.

8.

Provide a block diagram that shows the frequencies, signal path, oscillators per 2.1033(b)5.

New document "Overview of 1 GHz ver 2" with description "New overview of 1GHz" filed.

9.

Indicate compliance with the manually operated switch requirement in Section 15.509(c). The dead man switch must be depressed during operation and when released, transmitter must cease within 10 seconds.

The 1GHz unit is not, as stated in section 15.504(m) and 15.519(a),primarily handheld. Or meant for vertical use. The weight of the unit is 5.2 kg and it's not practical to use such a heavy unit handheld or on vertical surface. The attached photo originates from a brochure, made with a prototype of unknown weight.
New document "External photos ver 2" with description" New external photos" filed.

10.

What are the peak levels obtained at Fl(227 MHz) and Fh(1728 MHz)? Were these levels the highest and lowest peak levels that were 10 dB below peak emission?

The measurement of the bandwidth is divided into 2 frequency ranges, above and below 1 GHz. These measurements have been performed at different distances. Because of this the -10 dB points are difficult to obtain. The frequencies in the report Fl (227MHz) and Fh (1728 MHz) have been taken relative the point of peak emission Fm (1000 MHz).
The value of Fl emission is 35 dBµV/m and the value of Fh is 25 dBµV/m.
Fl is 10 dB below Fm at the measurement below 1 GHz and Fh is 10 dB below Fm at the measurement above 1 GHz. The difference in absolute emission levels is due to the fact that there are different measurement setup properties below and above 1 GHz. The Fl and Fh are based on the relative (-10dB) deviation from the measured Fm emission level in each frequency range.