

Re. FCC ID:	QLASH1GHZ
Applicant:	Mala GeoScience AB(publ)
Correspondence reference number:	26250
731 Confirmation number:	EA827998

Answers in bold.

1. Internal and external photo's of the transmitter control unit (CCUII). The CCUII is not a separate standalone digital device. It is the control unit and is an essential part of the transmitter.

The control unit is a digital device which is used to produce trig signals and transfer data from the UWB-unit to a PC as well as from other instruments to the same PC. The only connection between the control unit and the UWB-tranmitter is an optical fibre. The control unit is not essential for producing the transmitter trig signal. Any 100kHz optical signal will produce exactly the same RF-emission. A higher trig frequency does not produce any higher emission since the charging of the pulse generator is current limited. This means that it cannot charge any quicker then 10 μ S(100 kHz). We've not been asked to file any information regarding the control unit for previous applications (QLA250MHZ, QLA500MHZ, QLA800MHZ). Also, no other, published, application contain such information even though it's clear that there's a control unit involved when the transducers are used.

Therefore we don't understand why we should be forced to file information on the control unit.

2. Provide a block diagram that shows the frequencies, signal path, oscillators per 2.1033(b)5. This was not submitted in the last reply.

New Document filed containing more details of the receiver is filed.

2.1033(b)5 is actually not applicable in this case since this isn't a radio receiver with oscillators, mixers ant tuned stages. This is a digital system with one crystal controlled oscillator (7.94 MHz)and a frequency divider, all mounted in a shielded metal box.

3.The UWB bandwidth needs to be determined. The -10 dB points cannot be determined by two different peak emissions as you had explained in your last reply. You also had stated that the measurement setup was different below 1 GHz and above 1 GHz. The measurement set up should be similar(same detector, same distance etc...) throughout the emission profile in order to help determine the correct 10 dB points. From the overall peak of the emission, re-measure to find the - 10 dB points furthest from this peak emission to indicate the UWB bandwidth.

Addendum to previously filed test report, containing new bandwidth measurement, filed.

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