The following answers to Ofcom's Low Power LE Consultation (due date 31st October 2008) apply to the Questions contained in Annex 4 of the Consultation Document:

Q1: Do you agree with this assessment of the services that do not require further analysis?

A1: This analysis is based on ECC DEC(06)04 (including amendments) which dealt with frequencies below 10.6GHz.

The conclusions were based on studies at differing bands, and the studies within this consultation appear to be based on generic assumptions. It is not appropriate to extrapolate the results of UWB compatibility sharing studies below 10.6 GHz to bands above 10.6 GHz.

Detailed analysis needs to be conducted at those frequencies where receiver sensitivity could be considered more vulnerable to UWB (or any device that qualifies for licence-exemption) interference or aggregated noise floor levels.

In the case of fixed links, the receive antenna gain (for a given dish size) increases with frequency, therefore the simple scaling of allowed eirp of license-exempt devices is not valid. It is also not clear that the fixed links use in the full range 17.7 – 19.7 GHz has been considered as the document only identifies fixed links in part of the band. Similar considerations apply to consideration of FSS and BSS receivers in bands above 10.6 GHz. Intellect therefore suggests

that Ofcom examines the protection of fixed links and satellite links from interference carefully, as it is not clear to Intellect that the limits presently proposed are adequate.

It is also not clear that the assumptions made by Ofcom for deployment scenarios for UWB devices are necessarily representative. Signal blockage assumptions assumed due to buildings to attenuate indoor UWB device emissions must also properly take into account the service availability objectives of other terrestrial and satellite services on not only a long term basis but also a short term basis.

Q2: Is this analysis of risk of interference to broadcasting satellite correct?

A2: The analysis needs to have a greater number of bands analysed in both the Ku and Ka bands. See also above answer to Q1 for further comments.

Q3: Is this analysis to the risk of interference to radio-navigation & location correct?

A3: No - An increasing number of airborne radars including direct air-ground SAR sensors are being developed in bands above 10GHz for a wide variety of civil applications as well as military use. These may have wide scanning beamwidths and receivers which would pick up and aggregate multiple device emissions and thus be subject to far more harmful interference than Ofcom's assumption.

Q4: Is this approach to meteorological aids appropriate?

A4: No comments.

Q5: Do you agree with the proposed Licence-exemption limits set out above?

A5: No, as the limits suggested are based on suggested possibilities. The emergence of future UWB technologies may require a more comprehensive set of tests with more realistic numbers of UWB devices at set distances from the victim receivers.

General Comment:

There is also no obvious market requirement for additional spectrum to accommodate UWB devices above 10.6 GHz. CEPT, the EU/EC and the UK have already made provision for UWB in various bands below 10.6 GHz. There is no substantial nor compelling evidence to suggest that these bands already identified below 10.6 GHz for UWB device applications are not sufficient to accommodate current and projected UWB utilisations.

Ofcom should not take such steps to apparently promote UWB utilisation above 10.6 GHz in isolation of other countries in Europe. Before, Ofcom takes any further steps in this regard at a UK national level, Ofcom should raise this matter within relevant CEPT (including WG Spectrum Engineering) and EU/EC so that all appropriate sharing and compatibility studies can be undertaken and considered which properly take into account the need to protect the operation of

existing terrestrial and satellite services as well as their future evolution and development in all relevant bands above 10.6 GHz.

----------end of Intellect response document----------