

## **UbiTag v0.1 UWB component parameters**

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This information relates to the UWB component of the UbiTag v0.1 device.

The device is a pre-production prototype of an ultra-wideband unit which will be used indoors.

The device has the following UWB parameters:

<b>-10dB bandwidth (measured):</b>	<b>2.784GHz</b>
Frequency of highest radiated emission:	4.932GHz
-10dB band lower boundary f(H):	4.704GHz
-10dB band upper boundary f(L):	7.488GHz
Centre frequency $f(C)=(f(H)+f(L)/2)$ :	6.096GHz
<b>Peak ERP (theoretical/calculated):</b>	<b>2 milliwatts (+3dBm)</b>
<b>Peak EIRP (measured):</b>	<b>0.35 milliwatts (-4.5dBm)</b>
<b>Average (RMS) EIRP across occupied bandwidth (measured):</b>	<b>1.26 microwatts (-29dBm)</b>
<b>Pulse Repetition Frequency (PRF):</b>	<b>12MHz</b>

The raw data from which the measured values are derived was captured by the UK Radiocommunications Agency on 27/10/03, and is contained in attachments to this application (named "Measurements271003.txt" and "measurements.xls").

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