

Form 442 Question 7: Experimentation Description

0719-EX-PL-2013

I4C Innovations Inc. is planning to design and test a new UWB radar transceiver to ensure consistency with the FCC's UWB rules under Part 15.

UWB radar transmitter operates using a 10 dB bandwidth between 3.1 and 8 GHz. Transmit pulse is a 4Vpp, 150 ps (FWHM) monocycle. PRF is selectable between 1 MHz and 20 MHz. No modulation.

Research and experimentation will include:

- Testing and development of UWB radio for interrogation of cervical cardio/pulmonary signatures
- Validation of safety and efficacy of UWB radio design for select basic vital sign monitoring
- Validation of use of UWB radio for basic cardio/pulmonary monitoring

Technical Development:

- Prototype 1 (development of miniature UWB radar for mammal cervical testing)
- Prototype 2 (antenna form factor experimentation)
- Prototype 3 (miniaturized and multi-sensor integrated wearable device)
- Prototype 4 (exterior finish and durability)