



Elliott Tech, LLC

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# Device Summary for FCC Approval

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**Project Number: 776**

**Reference: device summary for fcc approval.docx**

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## INTRODUCTION

This document provides the details necessary for FCC approval on all devices related to project 776.

## REFERENCE DOCUMENTS

## LIST OF ABBREVIATIONS

PAS - Personal Alert Sentry

## DEVICES SUMMARY

### PAS (Personal Alert Sentry)

Proposed Number of on-board shields (2)

On-board crystal frequencies: 32.768 kHz

Crystal frequencies encapsulated by pre-FCC approved RF module: 26 MHz

On-board GPS module, pre-FCC approved and shielded also, but internal frequencies unknown

RF Module is pre-FCC approved. Our custom firmware controls frequency hopping and dwell time. Uses 902-928 MHz band and data rate is 1.2-4.8kbps, 30dBm output power (1W).

RF Antenna: embedded ceramic chip antenna

GPS Antenna: embedded ceramic chip antenna

### Hub

Proposed Number of on-board shields (2)

On-board crystal frequencies: 32.768 kHz

Crystal frequencies encapsulated by pre-FCC approved RF module: 26 MHz

On-board GPS module, pre-FCC approved and shielded also, but internal frequencies unknown

RF Module is pre-FCC approved. Our custom firmware controls frequency hopping and dwell time. Uses 902-928 MHz band and data rate is 1.2-4.8kbps, 30dBm output power (1W).

RF Antenna: External, flexible ½ wave center fed coaxial dipole with articulated knuckle

GPS Antenna: internal active patch antenna 1-stage 15dB SMT mount

### IREP (Indoor Repeater)

Proposed Number of on-board shields (2)

On-board crystal frequencies: 32.768 kHz

Crystal frequencies encapsulated by pre-FCC approved RF module: 26 MHz

On-board GPS module, pre-FCC approved and shielded also, but internal frequencies unknown



RF Module is pre-FCC approved. Our custom firmware controls frequency hopping and dwell time. Uses 902-928 MHz band and data rate is 1.2-4.8kbps, 30dBm output power (1W).

RF Antenna: External,  $\frac{1}{4}$  wavelength, unity gain, portable "stub" antenna, SMA male connector

GPS Antenna: internal active patch antenna 1-stage 15dB SMT mount

### **OREP (Outdoor Repeater)**

Proposed Number of on-board shields (2)

On-board crystal frequencies: 32.768 kHz

Crystal frequencies encapsulated by pre-FCC approved RF module: 26 MHz

On-board GPS module, pre-FCC approved and shielded also, but internal frequencies unknown

RF Module is pre-FCC approved. Our custom firmware controls frequency hopping and dwell time. Uses 902-928 MHz band and data rate is 1.2-4.8kbps, 30dBm output power (1W).

RF Antenna: External, Lairdtech Unity Gain (0dB) FG9020 (external)

GPS Antenna: internal active patch antenna 1-stage 15dB SMT mount