

## Memorandum

**To** Conrad Geibel, Iridium Satellite LLC  
**cc** John Charters, Trac-TRL  
**Prepared by** T R Davies

**Subject: H2 summary of differences for Class II permissive change version**

### 1 Introduction

The H2 Iridium Handset (9555) was type-approved for FCC and Industry Canada in July and August 2008. The type approval testing was performed by Trac-TRL in June. The final hardware was re-tested in September 2008 and a Class II permissive change will be used for FCC and IC approval. This memo summarises the differences between the two versions of the handset.

### 2 Electrical differences between versions

The electrical differences between the type-approval units (June 2008) and the permissive-change units (September 2008) are as follows.

- Reduced signal level at PLL divider input to improve transmitter spectrum.
- Improved stability margin of PA power supply.
- Improved input match at PA to reduce emissions in GPS band.
- RF decoupling of battery to reduce emissions.
- Fingers added to screening can lid over PA to reduce harmonic emissions.
- Filtering added to charger input to eliminate need for external ferrite clamp on charger lead.
- Filtering added to microphone and speaker lines to reduce RF pick-up from antenna causing audible clicks.
- Pull-down resistor added to Charge Enable signal to permit reset of fully depleted battery
- Ferrite beads added to serial bus to reduce emissions

**Subject:** H2 summary of differences for Class II permissive change version

### 3 List of relevant documents

<b>Document</b>	<b>CCL reference</b>
<b>Type approval units</b>	
Circuit diagram and BOM, Transceiver board	C7818-DL-001 rev c
Circuit diagram and BOM, Application board	C7818-DL-002 rev d
<b>Type approval reports</b>	
TRL FCC radio testing report, RU 1461/8620	C7818-RD-090
TRL ETSI radio testing report, RU 1461/8621	C7818-RD-090
SAR test reports, FCC and ETSI, M080502	C7818-RD-090
<b>Class II permissive change units</b>	
Circuit diagram and BOM, Transceiver board	C7818-DL-001 rev e
Circuit diagram and BOM, Application board	C7818-DL-002 rev h