Schematic, PCBA, BOM and software differences between Voyager-Pro and Voyager PRO UC v2 headsets

Revision History

Date	Revision	Changes
Dec/24/2009	1	Initial Draft Document
Jan/26/2010	2	Updated to include PCBA , Gerber and SW changes AK

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1 Reference Documents

- Voyager PRO UC v2 Schematic 82513-00 Rev26
- Voyager PRO UC v2 PCB Assembly Drawing 82510-dwg Rev26
- Voyager PRO Schematic 79943-00 RevA
- Voyager PRO PCB Assembly Drawing 79940-dwg RevA

2 Introduction

This document describes the difference between Voyager PRO UC v2 and Voyager PRO , mainly focus on the schematic and PCB layout.

3 Overview of differences between Voyager-Pro (79820-01) and Voyager PRO UC v2 (38809-XX and 38808-XX)

- Both the Voyager Pro and the Voyager PRO UC v2 headsets are Bluetooth ™ Class 2 (2.5mW maximum) devices, which receives and transmits in the frequency range of 2.402-2.480GHz. They are spread spectrum (frequency hopping) headsets; 79 channels, 1MHz Bandwidth, frequency hops at 1600 hops/second per the Bluetooth standard. The products communicate with other Bluetooth products using a Time division duplex scheme that alternates transmission and receive functions, and thus uses the same antenna to transmit and receive at different times.
- The CSR Single chip Bluetooth system provides voltage regulation (1.8V), battery charging, and is provided its clock input from the 16MHz crystal oscillator.
- The same omni directional antenna is used to send and receive RF signals.
- Battery charging is done with a linear constant current to charge a 100mAH rechargeable Li P battery.
- The headset can communicate with other Bluetooth ™ products that support the Headset Profile and Handsfree Profile. See the user guide for basic operation of the products.
- The Voyager PRO UC v2 headset has added Don/Doff sensors, capacitive sensor IC and modified firmware to accommodate sensor information capture and propagation to Plantronics proprietary PC software platform.

3.1 Schematic difference

LDO for DFU function is changed。

Antenna matching circuit:

1. Voyager Pro Antenna matching Circuit (L4 and L5 are not fitted) , Voyager PRO UC v2 Antenna matching Circuit (L4 and L5 Removed)

2. New IC added in Voyager PRO UC v2, Cypress IC: **New Don/Doff capacitive sensor IC added**

3.2 Layout difference

LDO for DFU function is changed：

1. Voyager Pro layout showing LDO for DFU

2. Voyager PRO UC v2 layout showing new LDO for DFU and additional Cap sense components

Antenna matching circuit:

1. Voyager Pro Antenna matching (L4 and L5 are not fitted)

2. Voyager PRO UC v2 Antenna matching (L4 and L5 removed)

New IC added in Voyager PRO UC v2, Cypress IC:

Voyager PRO UC v2 capative sensor IC and additional test/programming points added