



## **Technical Description of the M3500 Headset**

**Ed Goldstein 10/15/03**

The Plantronics M3500 is a Bluetooth™ Class 2 (2.5mW maximum) device, which receives and transmits in the frequency range of 2.402-2.480GHz and is a spread spectrum (frequency hopping) device that utilizes 79 channels each 1MHz wide.

The Plantronics M3500 is similar to the Plantronics M3000 except that the identical Cambridge Silicon Radio Integrated Circuit BC02A Crystal runs at 32 MHz for the M3500 rather than at 16 MHz for the Plantronics M3000 and the Plantronics M3500 has a dspfactory BelaSigna™ 200 Digital Signal Processing Integrated Circuit to deliver superior sound quality to both the User and the Caller. The User is also able to hear the quality of their transmission like the side tone a telephone handset.

The Plantronics M3500, like the Plantronics M3000 communicates with other Bluetooth™ products using a Time division duplex scheme that alternates transmission and receive functions, and uses the same 0dBi omni directional antenna to receive and transmit.

The headset can communicate with other Bluetooth™ products that support either the Bluetooth™ Headset or Hands Free Profile. See the user guide for basic operation.

The Bluetooth™ BC02A Integrated Circuit also controls the charging of the 170 mA/H NiMH rechargeable batteries for up to 3.5 hours talk time with preferential HV3 packets. Battery charging is accomplished using a wall adapter or cigarette lighter adapter to provide 5 VDC to the headset, which uses a linear current source to regulate current and charge the batteries.