

1.1. Operational Description

The EUT is a 2.4GHz Wireless Bluetooth Headset with 79 channels. The ATO Bluetooth Headset BT20 is a portable handsfree communication device built on Bluetooth wireless technology. This headset is designed and manufactured in accordance with Bluetooth specification 1.1. The device adapts Frequency hopping modulation. Antenna inside headset cabinet. Data can be transmitted by the radio signal connect to cell.

ATO Bluetooth headset is a Bluetooth v1.1 compliant wireless headset. It can interoperate with any Bluetooth devices supporting the Headset profile such as a mobile phone or a PC adaptor.

The headset uses Cambridge Silicon Radio (CSR)'s BlueCore 01 BC01b integrated circuit that is a single chip Bluetooth radio and baseband IC implemented in CMOS technology. This chip performs all the Bluetooth protocols required for the signaling & voice communication between an Audio Gateway and the Headset.

Other major components of the headset:

- ~ SST39VF400 – an external FLASH for CSR's BlueCore 01 to store the execution code of the Bluetooth baseband & protocol stack, and the headset profile.
- ~ MC145483 – it is a PCM audio codec responsible for analog to digital conversation of the audio signal from the microphone and for analog to digital conversation also to the speaker.
- ~ DC regulator - this regulator provides regulated power supply to the headset circuitry.

The RF subsystem contains RF filters, RF amplifiers, and an antenna switch. The subsystem was designed to achieve the requirement of Bluetooth radio performance.

The power source of the Headset is a 3.7 V Lithium-Ion battery. The battery can be recharged by connecting an external charger to the charger interfacing circuit.