

WIRELESS HEADSET operation descriptions

- 1) WIRELESS HEADSET will be used as one accessory of PS3 when we play relative game. In general, it will be regarded as a common BT headset, such as dialing, listen MP3 etc.
- 2) Functional features
 - a) Communicate with PS3 by BT;
 - b) Used as normally BT headset with mobile;
 - c) Voice recognition;
 - d) 4 keys: Vol+, Vol-, Mute, Power
 - e) Two microphones;
 - f) One speaker;
 - g) High quality audio transmission;
 - h) Send digital audio to PS3 for handling.
- 3) Extend interfaces

Via USB 1.1 cable wire, it provide the battery charge function, paired with PS3 and update firmware;
- 4) Air interface

WIRELESS HEADSET use Bluetooth 2.1+EDR, it support the profiles: HSP and HFP;
It support the protocols: L2CAP, SDP, RFCOM;
All of the protocols operate in the license-free ISM band at 2.4-2.4835 GHz. To avoid interfering with other protocols that use the 2.45 GHz band, the Bluetooth protocol divides the band into 79 channels (each 1 MHz wide) and changes channels up to 1600 times per second.

The product operates in 2400 MHz to 2483.5 MHz band, the channel is represented by a pseudorandom hopping sequence through the 79 channels. The channel is divided into time slots, with a nominal slot length of 625 μ s, where each slot corresponds to different RF hop frequencies. The nominal hop rate is 1600 hops/S.

The control signals and data in the Bluetooth™ Chipset are GFSK modulated to I and Q signals. The TX bit clock is provided to the base-band for synchronization. The output of the audio part is converted to analogue signals which are lowpass filtered before

being sent to direct up-conversion mixers. Then the signal will be transmitted from ANT through the filter to another Bluetooth™ device.

The radio signal is taken from RF input and amplified by an LNA, a low-IF receiver for Bluetooth™ modulated input signals. The signal demodulates the GFSK coded bit stream by evaluating the phase information in the I and Q signals.

Antenna Gain and Efficiency

Max. Gain: -0.13dBi (X Axis)
0.25dBi (Y Axis)
-1.08dBi (Z Axis)