

Circuit schematic description of Wireless Headset

BASE circuit:

Refer to appendix A, circuit schematic with title 'MIC BASE'. The microprocessor is IC3 and the RX and TX phase lock loops are contained in IC2. The 6Mhz reference oscillator is a crystal oscillator implemented with the internal circuitry of the microprocessor. The RX VCO contains Q5 and varactor diode D2. The TX VCO contains Q4 and varactor diode D1. The transmit buffers is composed of Q2 and Q3. Q7 is the RF amplifier and the MIXER, IF AMPLIFIER and FM-DEMODULATOR are all contained in IC4. The audio source and audio destination is the cellular phone's 2.5mm socket which is the speaker output and microphone input. Q6 provides a voltage indicator which switches collector output to high whenever battery voltage drops below 3.0 volts with tolerance of -0.2 volt. At this level the microprocessor will switch off all circuitry. IC1 is a low-drop voltage regulator which outputs 2.5volt with 0.2volt threshold.