

RT100 is consisted of RT100T and RT100R, RT100T is attached to the cellular phone via the signal line. And when the cellular phone is activated by key pressed or telephone ring come in, the RT100T will be awaked up and transmit the voice via the radio frequency. And when RT100R power switch is activated, the voice transmitted by the RT100T should be listen by the user via the speaker of the RT100R.

RT100T's principle of operation:

microphone is direct connected to A/O (audio Output) of cellular phone.

A/I (audio input) is detected by the A/I detect circuit and activate the power control.

And A/I also is amplified by the Q4, and this signal modulate the FM transmit block.

FM transmit block is consisted of Q3 (oscillator),Q2 (buffer),Q1(amplifier) and impedance match circuit.

Radio frequency is transmitted by the internal antenna circuit . It consisted of L9..L12,and also use the wires between RT100T and cellular phone.

RT100R's principle of operation:

Radio frequency is come from antenna and amplified by Q1 first.

L2 ,C24,VC1 are provided local oscillation and VC1 can be trimmed to the predetermined frequency.

Then the RF and local frequency is processed by the single chip FM receiver(TDA7021) to produce audio frequency which cellular phone transmit. And the audio frequency is amplified by the Q2, then voice is hear by the user through speaker.