

AT1846S

General Description :

The AT1846S is a highly integrated single-chip transceiver for Walkie Talkie applications. It totally realizes the translation from RF carrier to voice in the RX path and from voice to RF carrier in the TX path, requiring only one micro controller. The AT1846S has a powerful digital signal processor, which makes it have optimum voice quality, flexible function options, and robust performance under varying reception conditions. The AT1846S can be tuned to the worldwide frequency band for Walkie Talkie from 400MHz to 500MHz and especially from 134MHz to 174MHz which meets the frequency band of weather broadcast. The transceiver uses the CMOS process with a package size of 5X5mm. By virtue of its high integration, it requires the least external components and eliminates the complicated design of sensitive RF circuits on PCB

Functional Description:

Features

- * CMOS single-chip fully-integrated transceiver
- * Analog IQ baseband interface
- * Support worldwide frequency band
134MHz-174MHz
200MHz-260MHz
400MHz-520MHz
- * 12.5KHz, 25KHz channels
- * Support multiple XTAL clocks
12.8/25.6MHz

13/26MHz
- * Digital auto frequency control (AFC)
- * Digital auto gain control (AGC)
- * Selectable pre/de-emphasis
- * Received signal strength indicator (RSSI)
- * VOX and SQ
- * Build-in CTCSS/CDCSS generator and judgment
- * 23/24 bit programmable DCS code
- * DTMF and programmable in-band dual tone
- * Programmable in-band single tone transmitter
- * Auto RX/TX/SLEEP state switching
- * 8 GPIOs
- * 3-wire/I2C serial control bus interface
- * On chip 8 dBm PA
- * Analog and digital volume control
- * Directly support 32Ω resistance loading
- * 3.3 to 4.8V supply voltage with Integrated LDO

- * 5X5 mm 32 pin QFN package

