Feature Implementation

L-80 GPS

Power Supply

- Supply Voltage: 3.0V ~ 4.3V typical : 3.3V

Power Consumption

- Acquisition 25mA@ VCC=V_BCKP=3.3V

- Tracking 20mA@ VCC= V_BCKP =3.3V

- Standby 1.0mA @ VCC= V_BCKP =3.3V

- Backup 7uA@ V_BCKP=3.3V

Receiver Type

- GPS L1 1575.42MHz C/A Code

- 66 search channels, 22 simultaneous tracking channels

Sensitivity

- Acquisition -148dBm

- Re-acquisition -160dBm

- Tracking -165dBm

TTFF (EASY enabled)

- Cold Start 15s typ.@-130dBm

- Warm Start 5s typ.@-130dBm

- Hot Start 1s typ. @-130dBm

TTFF (EASY disabled)

- Cold Start (Autonomous) 35s typ.@-130dBm

- Warm Start (Autonomous) 30s typ.@-130dBm

- Hot Start (Autonomous) 1s typ.@-130dBm

Horizontal Position Accuracy (Autonomous)

- <2.5m CEP@-130dBm

Max Update Rate

- Up to 10Hz,1Hz by default

Accuracy of 1PPS Signal

- Typical accuracy <15ns (Time service is not supported)

- Time pulse width 100ms

- Velocity Accuracy

- Without Aid 0.1m/s

Acceleration Accuracy

- Without Aid $0.1m/s^2$

Dynamic Performance

- Maximum Altitude 18,000m

- Maximum Velocity 515m/s Maximum

- Acceleration 4G

UART Port

- UART Port: TXD1 and RXD1

- Supports baud rate from 4800bps to 115200bps,9600bps by default

- UART port is used for NMEA output, MTK proprietary commands input and firmware upgrade

Temperature Range

- Normal operation: -40°C ~ +85°C

- Storage temperature: -45°C ~ +125°C

Physical Characteristics

- Size: 16±0.15 x 16±0.15 x 6.45±0.1mm

- Weight: Approx. 6.0g

SIM900/SIM800

Power Supply

- Supply Voltage: 3.2V ~ 4.8V

Power Saving

- Typical power consumption in sleep mode is 1.0mA

Frequency Bands

- Quad Band: GSM 850, EGSM900, DCS 1800, PCS 1900

Transmitting Power

- Class 4(2W) at GSM 850 and EGSM 900

- Class 2(1W) at DCS 1800 and PCS 1900

GPRS Connectivity

- GPRS multi-slot class 10(default)
- GPRS multi-slot class 8(option)

Temperature Range

- Normal operation: -30°C ~ +80°C
- Restricted operation:- -40°C ~ -30°C and +80°C ~ +85°C
- Storage temperature: -45°C ~ +90°C

Data GPRS

- GPRS data downlink transfer: max 85.6kbps
- GPRS data uplink transfer: max 42.8kbps
- Coded scheme CS-1, CS-2, CS-3, CS-4
- Integrated TCP/IP Protocol
- Support PACKET BROADCAST CONTROL CHANNEL (PBCCH)

CSD

- Supports CSD transmission

USSD

- Unstructured Supplementary Services Data(USSD) support

SMS

- MT, MT, CB, Text, and PDU mode
- SMS Storage: SIM Card

External Antenna

- Antenna Pad

SIM Card Interface

- Support SIM Card : 1.8V, 3V

Audio Features

- Half Rates (ETS 06.20)
- Half Rates (ETS 06.10)
- Enhanced Full Rates (ETS 06.50 / 06.60 / 06.80)
- Adaptive Multi Rate (AMR)
- Echo Cancellation
- Noise Supppression

Serial Port

- 1200bps to 115200bps
- Autobauding Supports baud rate from 1200bps to 57600bps

Physical Characteristics

- Size: 24*24*3mm
- Weight: Approx. 3.4g