

Comparativa entre SIM908, SIM928A y SIM968

Las principales diferencias radican en el módulo GPS. El **SIM968** cuenta con un módulo **GLONASS**, mientras que el **SIM908** y el **SIM928A** cuentan con módulos GPS.

Las otras diferencia son el protocolo de comandos AT utilizado (SIM908 utiliza GSM 07.07 ,07.05, mientras que el SIM928A y SIM968 utilizan el 3GPP TS 27.007), la tensión de operación del módulo GPS (SIM908 utiliza de 3.0 ~ 4.5V, mientras que el SIM928A y SIM968 utilizan de 2.8 ~ 4.3V) y por último las dimensiones y el peso.

	SIM908	SIM928A	SIM968
General features	•Quad-Band 850/900/1800/1900MHz •GPRS multi-slot class 10 •GPRS mobile station class B •Compliant to GSM phase 2/2+ - Class 4 (2 W @ 850/900 MHz) - Class 1 (1 W @ 1800/1900MHz) •Control via AT commands (GSM 07.07 ,07.05 and SIMCom enhanced AT Commands) •SIM application toolkit •Supply voltage range: -GPRS: 3.2 ~ 4.8 V -GPS: 3.0 ~ 4.5V •Low power consumption •Dimensions: 30*30*3.2mm •Weight: - SIM908:5.2g - SIM908-C:11.1g •Operation temperature: -40 °C to +85 °C	•Quad-Band GSM 850/900/1800/1900MHz •GPRS multi-slot class 10 •GPRS mobile station class B •Compliant to GSM phase 2/2+ -Class 4 (2 W @ 850/900 MHz) -Class 1 (1 W @ 1800/1900MHz) •Control via AT commands (3GPP TS 27.007 and SIMCom enhanced AT Commands) •SIM application toolkit •Supply voltage range: -GPRS: 3.2 ~ 4.8 V -V-GPS: 2.8 ~ 4.3V -VCHG: 5V •Low power consumption •Dimensions: 30*30*3.0mm •Weight: 5.3g •Operation temperature:-40°C to +85 °C	•Quad-Band GSM 850/900/1800/1900MHz •GPRS multi-slot class 10 •GPRS mobile station class B •Compliant to GSM phase 2/2+ -Class 4 (2 W @ 850/900 MHz) -Class 1 (1 W @ 1800/1900MHz) •Control via AT commands (3GPP TS 27.007 and SIMCom enhanced AT Commands) •SIM application toolkit •Supply voltage range: -GPRS: 3.2 ~ 4.8 V -V-GPS: 2.8 ~ 4.3V -VCHG: 5V •Low power consumption •Dimensions: 30*30*3.0mm •Weight: 5.3g •Operation temperature:-40°C to +85 °C
Specifications for SMS via GSM / GPRS	•Point-to-point MO and MT •SMS cell broadcast •Text and PDU mode	•Point-to-point MO and MT •SMS cell broadcast •Text and PDU mode	•Point-to-point MO and MT •SMS cell broadcast •Text and PDU mode
Specifications for audio	•Tricodec - Half rate (HR) - Full rate (FR) - Enhanced Full rate (EFR) •Hands-free operation •Echo cancellation	•Tricodec -Half rate (HR) -Full rate (FR) -Enhanced Full rate (EFR) •Hands-free operation •Echo cancellation	•Tricodec -Half rate (HR) -Full rate (FR) -Enhanced Full rate (EFR) •Hands-free operation •Echo cancellation
Specifications for data transfer	•GPRS class 8/10: max. 85.6 kbps (downlink) •PBCCH support •Coding schemes CS 1, 2, 3, 4 •Non transparent mode •PPP-stack •Integrated TCP/IP stack	•GPRS class 8/10: max. 85.6 kbps (downlink) •PBCCH support •Coding schemes CS 1, 2, 3, 4 •PPP-stack •Integrated TCP/IP stack	•GPRS class 8/10: max. 85.6 kbps (downlink) •PBCCH support •Coding schemes CS 1, 2, 3, 4 •PPP-stack •Integrated TCP/IP stack
Specifications for CSD data	•CSD up to 14.4 kbps •USSD	•CSD up to 14.4 kbps •USSD	•CSD up to 14.4 kbps •USSD

Compatibility	•AT cellular command interface	•AT cellular command interface	•AT cellular command interface
Specification for GPS/GNSS	•Receiver type - 42-channel - GPS L1 C/A code, - High-performance STE engine •Sensitivity - Tracking: -160 dBm - Cold starts: -143 dBm •Time-To-First-Fix - Cold starts: 30s (typ.) - Hot starts: 1s (typ.) •Accuracy -Horizontal position : <2.5m CEP	• Support EASY™ self-generated orbit prediction • Support EPO™ orbit prediction • Support SBAS ranging (WAAS, EGNOS, GAGAN, MSAS) • Support Jamming Removing • Integrated Low-noise amplifier • Receiver type 33tracking/99 acquisition-channel GPS receiver • Max. update rate: 10Hz • Sensitivity¹ - Tracking: -167 dBm - Reacquisition: -157 dBm - Cold starts: -148 dBm • Time-To-First-Fix^{1,2} - Cold start: 28s - Warm start: 26s - Hot start: <1s - EPO Assist: 13s (CTTFF) • Accuracy - Automatic Position³: <2.5m CEP - Speed⁴: 0.1m/s	•Support GPS/GLONASS/Galileo/QZSS • Support EASY™ self-generated orbit prediction • Support EPO™ orbit prediction • Support SBAS ranging (WAAS, EGNOS, GAGAN, MSAS) • Support Jamming Removing • Integrated Low-noise amplifier • Receiver type 33tracking/99 acquisition-channel GNSS receiver • Max. update rate: 10Hz • Sensitivity¹ - Tracking: -167 dBm - Reacquisition: -160 dBm - Cold starts: -148 dBm • Time-To-First-Fix^{1,2} - Cold start: 28s - Warm start: 26s - Hot start: <1s - EPO Assist: 13s (CTTFF) • Accuracy - Automatic Position³: <2.5m CEP - Speed⁴: 0.1m/s
Interfaces	•80-pad with SMT type •Interface to external SIM 3V/ 1.8V • Dual analog audio interfaces •SPI interface •RTC backup •Charge interface •A serial interface and a debug interface for GSM/GPRS •Debug interface for GPS NMEA information output •Two separate antenna connectors for GSM/GPRS&GPS	• 80-pad with SMT type • one Interface for external SIM card :3V/ 1.8V •two analog audio interfaces •SPI interface •RTC backup •A serial interface and a debug interface for GSM/GPRS • two serial interfaces for GPS • charge input	• 80-pad with SMT type • one Interface for external SIM card :3V/ 1.8V •two analog audio interfaces •SPI interface •RTC backup •A serial interface and a debug interface for GSM/GPRS • two serial interfaces for GPS • charge input

¹ Demonstrated in lab

² All SV @ -130 dBm

³ 50% 24 hr static, -130dBm

⁴ 50%@ 30m/s