R18 4G Band User Manual

1. Product Description

KS01 is a 4G band with GPS/Wi-Fi/LBS/Blue-tooth locating function, there is embed circuit inside both straps, and also IR sensor on bottom case of the band body, can use for offenders with anti-disassembly metal buckle, can use for normal tracking with common buckle too.

2. Hardware Specification

Item	Parameter
Operation System	mocor5 32bit
GSM/GPS Chip	SL8521E(Dual-core ARM CortexTM A7MP processor 1.2GHz)
Supported Bands	FDD: B1 B2 B3 B4 B5 B7 B8 B12(17) B20 B28A WCDMA: Band 1\2\5\8 GSM: Band 2\3\5\8
Date Rate	2G Data: EDGE 3G Data: DC-HSPA+\4.2\2.2Mbps 4G Data: CAT4
Memory	2Gb RAM NAND+4Gb ROM LPDDR2
SIM Card	Single NANO SIM card
WiFi	Support
Blue-tooth	Support
NFC	Support
Internal Battery	680mAh (model: 632832P)
External Portable Power Bank	1000mAh
Water Proof	IP68
Working Temperature	-20~70℃
Working Humidity	5%~95% Non-condensing

3. Design and Function List

1.1 **Waterproof** – Waterproof with IP rating of IP66 ("dust tight" and protected against heavy seas or powerful jets of water) AND IP68 (protected against complete, continuous submersion in water up to 1.5 meters in depth), including the ability to function in chlorine and saltwater.

1.3 **Material** – Device shell must be made of comfortable, hypoallergenic material that is latex-free, lead-free, and highly durable. Devices may be worn by children daily and by individuals who won't be able to remove them for up to a year. Devices should be not cause skin irritations due to sweat or moisture. Devices should not cause allergies. Devices should be tear-resistant and able to withstand reasonable bumps, bangs and hits.

1.4 **4G LTE** -- function on standard T-Mobile network (1900 MHz) and roam on that network worldwide (especially in Bahamas).

1.5 **GPS and WIF**I for tracking outdoors and indoors.

1.6 **Bluetooth** for location tracking, phone pairing, locating Bluetooth modules or beacons, sending alert if Device is out of range from modules or beacons.

1.7 **RFID and NFC** supported for check in/check out, hotel room key access, input cashless payments, park admission, fast pass access, etc.

1.8 **SIM card** – NANO SIM.

1.9 **Real-time Tracking** – Locations are updated according to settings or on-demand from the App.

1.10 **Adjustable Location Settings** – Can change the settings in the platform to different location reporting intervals (30 seconds for emergency mode, 1/10 min for normal tracking, passive locate when user request).

1.11 **Two-Way Voice**. Device receives calls from and sends calls to numbers programmed in the app.

1.12 **Geo-fences and alerts**

1.13 **SOS Button and Emergency Aler**t – Similarly, when the SOS is held to activate emergency alert, the Device will automictically report location every 30 seconds. able to turn it off just like active tracking above.

1.14 **Accelerometer** – Device only locates when motion is detected to conserve battery.

1.15 **Removal Detection** – sensor on back of watch and removal alert.

1.16 **Tamper Detection** –tamper wire within in strap designed to immediately detect unauthorized removal. Device sends alert when wire is disconnected, and no current is present.

1.17 **Dual Strap Lock Mechanisms** – Two hard plastic or metal locking mechanism options for keeping the Device on wrist. 1) mechanism that can be easily removed by a parent or guardian, and 2) more permanent mechanism that must be unlocked or broken to be removed.

1.18 **Off button** – signal to Device to turn it off.

1.19 **Battery and Charging** – magnetic charging pins on the side of the Device to allow charging while Device is being worn. Minimum battery life is 24 hours with aggressive use. Charging cable must be a minimum of 183 centimeters (6 feet).

1.20 **Low Battery Alert** – Device sends alert when battery is 20%, 10% and 5%.

1.21 **Steps counting** in software

1.22 **Speed tracking and alerts**

1.23 **Altitude tracking**

1.24 **IMEI labels** – Labels with a QR code for the WID may be adhered to the back of each Device for easy registration scanning. Labels must be outdoor-rated, weatherproof, and have a high-life rating, meaning that the QR code will not wear off. Devices will still need to be identified through Bluetooth or RFID in case label is removed or destroyed.

1.25 **Watch Face** – simple LED watch face showing real time, signal strength and battery life.

4. Features Definition

4.1 LED Screen Features Definition

Items	Display Content	Features	Status Description
1	Battery Icon	Battery Capacity, Charging, and Fully Charged,	Display the working status of battery volume, and status of low battery, Charging, and fully charged.
2	SOS Icon	SOS Alarm	When SOS alarm is triggered, it will display SOS icon till emergency mode is ceased.
3	GPS Icon	GPS Signal	It means GPS located.
4	4G Signal Icon	Mobile Network Signal	It means mobile network signal strength and status of accessing to internet.
5	Time Clock	Display Time	12 hours format, only display time.

4.2 SOS Button Features Definition

Items	Features	SOS Button Operating Status Description
1	Power on	Pressing SOS button for long when device is powered off regardless of connected or disconnected charger, inserted or removed SIM card (Special condition).
2	Check the Status of Standby	Press SOS button shortly when charger disconnected.

3	Trigger SOS Alarm and Emergency Mode	Press SOS button for long under the status of power on with SIM card inserted regardless of connected or disconnected charger.
4	Cease the Emergency Mode	Press SOS button for long under the status of power on with SIM card inserted regardless of connected or disconnected charger, meanwhile the SOS alarm and emergency mode is triggered.
5	Power off	Press SOS button for long under the status of power on with SIM card removed regardless of connected or disconnected charger, the watch can not be switched off after install the SIM card, and will automatically power up after charge the battery.
6	Hang up	When it's on the phone, press SOS button shortly.
7	Answer call	Short click the SOS button when there is incoming call

4.3 Speaker Features Definition

Items	Features	Speaker Status Description
1	Two Way Call	Hands free
2	Incoming Ring	When ringing mode is open, and receive the incoming call, it will ring continuously.
3	Ringing when Find Band	When ringing mode is open, and receive the find band command from platform.

4.4 Microphone Features Definition

Items	Features	Microphone Status Description
1	Two Way Call	

4.5 Strap Features Definition

Items	Features	Strap Operating Status Description
1	Cut Strap Alarm	The strap was broken by external force.

4.6 Charging Cable Features Definition (Magnetic charging cable)

Items	Features	Charging Cable Operating Status Description
1	Charging	Connecting charging cable with power.
2	Auto Power on	Connecting charging cable with power when device powered off.
3	Firmware update	Connecting charging cable with computer (Installed configuration program).
4	Loading IMEI	Connecting charging cable with computer (Installed configuration program).

4.7 NFC Features Definition

Items	Features	NFC Status Description
1	To be read	Regardless of the device is power on/off, NFC data can be read.

4.8 Bluetooth Features Definition

Items	Features	Bluetooth Status Description
1	Indoor Location	Detect the ID and signal strength of Bluetooth.

4.9 Wi-Fi Features Definition

Items	Features	Bluetooth Status Description
1	Indoor Location	Detect the ID and signal strength of Wi-Fi hot spot.

4.10 IR Sensor Features Definition

Items	Features	IR Sensor Status Description
1	Remove Alarm	Remove alarm will be triggered when IR sensor detected the range of distance to obstacle reaching 5-10mm (closer to 5mm if possible) over 2S.

4.11 Locating Features Definition

Items	Locating Mode	Locating Condition
1	Normal Location Mode	Static model：The G-Sensor of the band can not detect motion in certain period, then the band will go to power saving mode, band will not upload location data to the server but only heartbeat data and response to SMS command. Moving mode: The G-Sensor of the band detect motion in certain duration, then band will start to upload location data as the set interval, the location data will contain the GPS location and WIFI location and LBS location and Blue-tooth hot spot information.

2	Emergency Mode	No matter whether the motion is detected by G-Sensor of the band, the band should upload location data with interval time of 30 seconds for 5 minutes, the location data will contain the GPS location and WIFI location and LBS location and Blue-tooth hot spot information.
3	Interval Setting for Normal Mode	Can set the band to upload location data with interval time of 1 minutes and 10 minutes at normal mode.
4	Passive Location mode	The band will not only upload the heartbeat data to keep the connection between server and band, GPS module will be shut off, and the band will only upload location when requested from GPRS channel

4.12 Portable Power Bank Definition

Red LED Flash--Power bank battery lower than 15%

Red LED Light--Power bank is fully charged

Blue LED Light--Power bank is charging

Red&Blue LED Flash--Charging the watch when the power bank battery lower than 15%

5. SMS Features Definition

Items	SMS Command (Letters are case sensitive)	Features
1	PW,PASSWORD,CMD# E.g.: PW,123456,GETIMEI#	Check the IMEI number of device.
2	PW,PASSWORD,POWEROFF# E.g.: PW,123456,POWEROFF#	Power off remotely.
3	PW,PASSWORD,IP,IP_Address,PORT# If IP=47.90.254.101 Port=7003 E.g.: PW,123456,IP,47.90.254.101,7003#	Set server IP/domain name and Port
4	PW,123456,APN,CMNET,USERNAME,PASSWORD,MNCMCC# If APN name is cmnet, APN'S USERNAME and PASSWORD is null, MNC IS 460, MCC is 01 E.g.: PW,123455,APN,cmnet,,,46001,#	Set or Change APN.
5	PW,Current_Password,PW,New_Password# E.g.: PW,123456,PW,654321#	Change password of SMS command.
6	PW,PASSWORD, FACTORY# E.g.: PW,123456,FACTORY#	Restore to factory setting
7	PW,PASSWORD,EMERGENCY,0/1# 0 means OFF, 1 means ON E.g.: PW,123456,EMERGENCY,1#	Turn on/off emergency mode, default setting is "off"
Notes: If the above SMS command set successfully, device will reply: Config OK! If the above SMS command failed, device will reply: Config Failed!		
8	PW,PASSWORD,LOCATE# E.g.: PW,123456,LOCATE# Device replies: Name/IMEI: ******, LOCATION DETAILS If preset name, then display name, otherwise display IMEI; If GPS locates, it replies: Name/IMEI: ****** , https://maps.google.com/maps?q=Latitude,Longitude;	Check current location immediately.

	If GPS doesn't locate, it replies: Name/IMEI: ******,****** MCC@MNC@LAC@CELLID@DB+MCC@MNC@LAC@CELLID@DB+MCC@MNC@LAC@CELLID @DB+...;MAC@DB+MAC@DB+MAC@DB+...;BID@DB+BID@DB+BID@DB...	
9	PW,PASSWORD, STATUS# E.g.: PW,123456, STATUS# Device replies: IMEI=****** (International Mobile Equipment Identity) IMSI=****** (International Mobile Subscriber Identity) IP=****** (Server IP address) PORT=****** (Server Port) APN=****** (Network access point name) GSM=****** (GSM signal strength) GPS=****** (GPS locating status, 0=not locate，1=locate) BATTERY=****** (Battery percentage) ALARM=****** (Alarm on/off status) SMSALARM=****** (SMS notifications of alarms on/off status)	Check parameters and status.