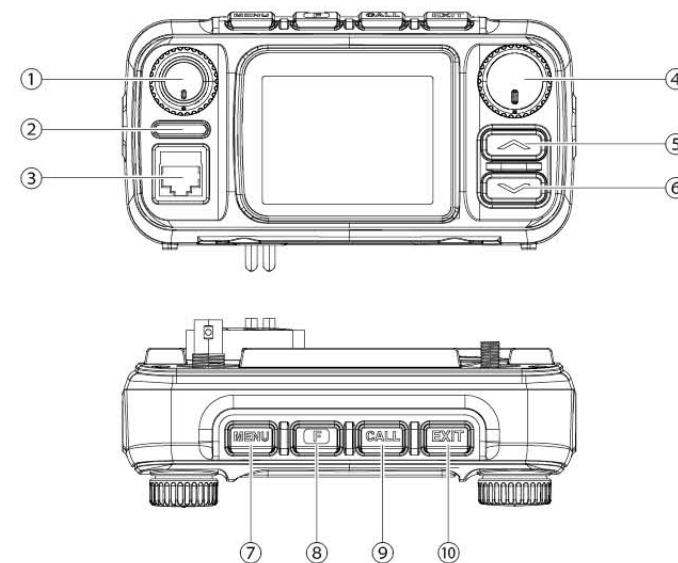Analog Dual-mode high-power mobile radio, support to various services of public network radio, with single call, group call, standby group, group automatic update, PTT call application/preemption/PTT call rights, and so on; Edit frequency, function menu selection, notify the user through liquid crystal display and TTS voice broadcast, the operation is simple and clear.

CONTENTS

RADIO OVERVIEW

① Power/Volume key

In the off state, press and hold for 2 seconds to turn it on.

In normal standby mode, press and hold for 3 seconds to power off.

In normal standby mode, turn left to decrease volume, turn to right to increase volume

② Indicator light

③ Microphone/write frequency interface

④ Select / Confirm key

- In standby mode, short press to enter the system setting menu.
- In the system setting menu state, turn left and right to select setting options

⑤ Up button

⑥ Down button

⑦ MENU key

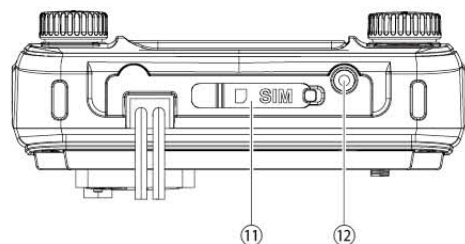In standby mode, short press to enter the system setting menu.

⑧ F key

- In standby mode, press **[F]** key TTS to broadcast the current signal strength.
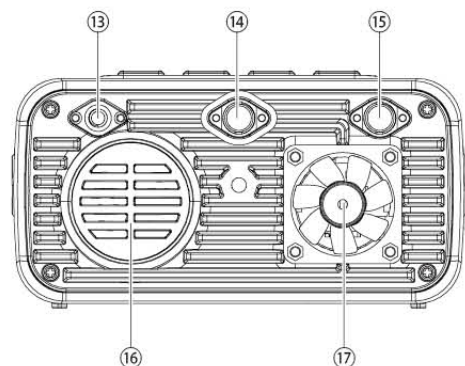- Press and hold in standby mode to switch between SIM card 1 and card 2.

⑨ CALL key

In the standby mode, press to activate SOS function.

⑩ EXIT: Return key

When entering the menu state, short press to return to the previous menu or exit programming.

⑪ **SIM card 1, card 2 insertion port**

⑫ **External speaker interface**

⑬ **GPS antenna connector**

⑭ **4G antenna connector**

⑮ **Analog antenna connector**

⑯ **Built-in speaker**

⑰ **Fan**

⑱ **Microphone side button PTT1**: public network button
   In standby mode, press and hold the call (PTT).

⑲ **Microphone side button PTT2**: analog button
   In standby mode, press and hold the call (PTT).

⑳ **Microphone hole**

㉑ **Microphone keyboard**
  • Press the **[FUN]** key to enter the menu.
  • Press the **[CLR]** key to exit processing.
  • Press the **[M]** key to dial
  • Press the **[CLR]** button to hang up or exit the call

  • Press the **[A/B]** key to switch the A/B channel group.
  • Press the **[▲]** / **[▼]** key to switch the frequency or channel number.
  • Press the 123456... button to enter the frequency or channel number or phone number
  • Press * to enter 4 numbers, you can directly call the member. When entering 4 or less numbers, press **[FUN]** to single call the member;

INSTALL THE USIM CARD

Please prepare a valid USIM card (user identification card) before using this unit.

Open the card slot waterproof cover and insert the USIM card into the card holder, paying attention to the direction of the notch.

INDICATOR DESCRIPTION

Host Status	Indicator status	Times
Looking for network status	Green light, quick flashing	0.2S bright, 0.2S off
Waiting state	Green light, slow flashing	1S bright, 1S off
Waiting state (when there is a GPS signal)	Yellow light, slow flashing	0.3S bright, 0.7S off
Initiating a call	Red light	
Answer voice status	Green light	

MENU TYPE

1. Press **[FUN]** to enter the menu. There are 8 types.
2. Press the **[▲]** / **[▼]** key to select the type;
3. Press the **[FUN]** key to confirm the menu type.
4. Press the **[CLR]** key or long press the menu key to exit processing.

BASIC DESCRIPTION

1. **Power on:** In the off state, long press **[Power/Volume]** key, it will be turned on, during the boot process. There will be a voice prompt "Beep... Start... Search Network (Green Light Flash)...". After successfully logging in to the network (green light flashes slowly), there will be voice prompts for the current group and members.
2. **Power off:** In the power on state, long press **[Power/Volume]** key, until the switch is turned off, it will shut down.
3. **Adjust the volume:** Turn the **[Power/Volume]** key to the appropriate volume when the power is on.
4. **Select group (group call), single call selection (single call), select friend call:**
   • **Group selection:** Select the group you want to enter by rotating **[Select/Confirm]** key or **[Up/Down]** key on the menu page. Press **[Select/OK]** to confirm entering the group.
   • **Single call selection:** enter the group, display the member list, rotate the **[Select/Confirm]** key or **[Up/Down]** key to select the member, short press **[Select/Confirm]** key to

confirm the selection;

- **Select a friend:** Rotate **[Select / Confirm]** key or **[Up/Down]** key on the menu page to select a friend list, press **[Select / Confirm]** key to enter the friend list, and display all the added friends. The operation is the same as the single call selection.

5. **System setting operation (see menu list for specific options):** Short press the **[MENU]** function key or keypad **[FUN]** to enter the system menu and operate the corresponding button according to the screen prompts. In this mode, if it is not operated for more than 15 seconds, it will automatically exit the selection mode, or short press **[EXIT]** to exit or return to the default group mode standby.

6. **GPS:** After the platform is set, you can reboot and log in, only support GPS models.

MAIN FUNCTION

- 4G/LTE POC +dual band analog radio
- Analog output power 25W
- Double PTT;
- SOS & APRS function;
- GPS Function;
- Repeater function
- Group Call, Private Call, Friends Call, Emergency Call
- Dual SIM Card slots;
- Network Signal Strength Prompt

NATIVE INFORMATION

Num	Display character	Secondary menu display characters	Secondary menu setting instructions
1	account info	/	Display the public network account information of this radio
2	Version Info	/	Display software version information
3	locate info	/	Display longitude, latitude, speed
4	Embed info	/	Display embedded information
5	Programming Time	/	Display final programming time
6	Return	/	/

SYSTEM PARAMETERS

Num	Display character	Secondary menu display characters	Secondary menu setting instructions
1	backlight	off	The backlight is turned off (the backlight will be lit when there is an operation)
		on	The backlight is always on
		Automatic 5 seconds / ... / 60 seconds	The backlight is off after the set time (the number indicates the time)
2	Ley lock mode	By hand	Manual lock keyboard
		Automatic 5 seconds / ... / 30 seconds	Lock the keyboard after setting the time, do not save the lock state
		Save 5 seconds / ... / 30 seconds	Lock the keyboard after setting the time, save the lock status
3	Power on tone	Off / prompt tone – 1...5	Boot tone selection

Num	Display character	Secondary menu display characters	Secondary menu setting instructions
4	Wait config	Off	Close waiting
		Public network only	Open only the public network
		Public network +A and B	Public network and AB group channels open
		Public network +A or B	Public network and A or B group channels open
		Only A and B	Only the AB group channel is open
		Only A or B	Only channel A or B is open
5	Prefer RX	Analog/public network	Select the mode of priority reception
6	Beep	Off/On	Beep off/on
7	Voice	Close/Chinese/English	Choice of report sound
8	Transfer	Off/On	Transfer off/On
9	Language	English / Chinese	Select display interface language
10	Standby light	Off/On	Waiting light off/on
11	Headset Tx	Public network / analog switch	PTT up and down key customization, select public network / analog to launch
12	GPS	Off/On	GPS Off/On
13	Record Function	Off/On	Recorder Off/On
14	Play Previous	/	/
15	Play Next	/	/
16	Return	/	/

ANALOG SETTING

Num	Display character	Secondary menu display characters	Secondary menu setting instructions
1	Step	2.5KHz/.../500K	choose from 2.5KHz,...500KHz
2	SQL	0 level-10 level	Adjust between 0-10 levels, the higher the level, the deeper the squelch
3	Roger	Off/On	End tone off/on
4	TOT	Off	No limit on launch time
		15 seconds /.../270 seconds	After the launch exceeds the time, the walkie-talkie will automatically turn off the launch.
5	Scan	/	Scan start, frequency mode or at least 2 channels to start scanning
6	Scan switch	Delete/add	Delete/add scan channel
7	Reset	Parameter reset	Initialization of VFO frequency and related settings
		Overall reset	Initialization of all settings, password: 00000000
8	Priority transmission	none	No priority transmission, using directed channel transmission
		automatic	Automatic channel selection
		Group A	Using group A channel transmission
		Group B	Using group B channel transmission
9	Return	/	/

CHANNEL SETTING

Num	Display character	Secondary menu display characters	Secondary menu setting instructions
1	Power	Low power / high power	Low power transmission / high power transmission
2	Band	Narrowband/broadband	"N" will be displayed when narrow band is selected, and "W" will be displayed when broadband is selected.
3	Sft	None	Transmit frequency equals receive frequency
		Negative Offset	The transmit frequency is equal to the current frequency minus the difference frequency
		Positive Offset	The transmit frequency is equal to the current frequency plus the difference frequency
4	offset	0.000-119.995MHz	Difference between the frequency of transmission and reception
5	CTCSS/DCS Dec	Off/…/CTC-254.1	Press [*] to select: Off, CTCSS, DCSN, DCSI; Press the [#] key: switch the DCS forward and reverse code; Press the [▲] / [▼] key: select the group you want; Press [0-9] to directly input the sub audio you want.
		DCS-D023N/.../DCS-D754I	
6	CTCSS/DCS Enc	Off/…/CTC-254.1	
		DCS-D023N/.../DCS-D754I	
7	REV	Off/On	Scramble off/on
8	Channel Save	/	Press the [▲] / [▼] key to select the channel number you want to store. Press [FUN] to display "OK Save?", prompt storage confirmation. Press the [FUN] key again to confirm the storage.
9	Channel delete	/	Press the [▲] / [▼] key to select the channel number you want to delete. Press [FUN] to display "OK Delete?", prompt to delete the confirmation. Press the [FUN] key again to confirm the deletion.
10	VOX	Off/On	VOX Off/On
11	Return	/	/

GROUP SELECTION

1. Enter group selection
2. Select group
   a. Press [▲]: Cut to the next group
   b. Press [▼]: Cut to the previous group
   c. Quickly press [▲] or [▼] to skip the middle group
   d. If there is no operation within 10 seconds, the group selection mode will be automatically exited.
   e. If there is no group, it will prompt "No group information"
3. Press the [FUN] key: to enter the selected group
4. Press the [FUN] key: Exit group selection

MEMBER/FRIEND SELECTION

1. Enter member/friend selection
2. Select member/friend
   a. Press [▲]: Cut to the next member/friend
   b. Press [▼]: cut to the previous member/friend
   c. Press [▲] or [▼] to skip intermediate members/friends
   d. If there is no operation within 10 seconds, the member/friend selection mode will be automatically exited.
   e. If there are no online members/friends, they will prompt "No online members/friends"
3. Press the [FUN] key: Exit member/friend selection
4. Press [CLR] to exit the call

PUBLIC NETWORK SETTING

Num.	Display character	Secondary menu display characters	Secondary menu setting instructions
1	Single time	Off/30 second/.../240 second	Automatically exits the single call state when it arrives at the specified time
2	Emission tone	Off/On	Launch confirmation tone off/on
3	Digital signal	Off/On	Digital signals are divided into 0-31 groups, of which 31 signals are the strongest
4	Network Set	2G/3G/4G/Auto	You can choose the appropriate network settings, default: automatic mode
5	Tone quality sort	4k/8k	4K for 4G networks
6	Return	/	/

TROUBLESHOOTING

If your walkie-talkie has the following phenomenon during use, please check the information below.

Problem	Phenomenon	Solution
Poor signal reception	The current location network signal is weak, such as the basement or close to the building, so that the radio waves can not be effectively transmitted, or the network traffic is high during the busy hours of the network, causing the network busy line to be unable to talk.	1. Please move to a location that can receive the network well. 2. Please avoid using it in a similar time period or try again later.
Intermittent call or delay	The base station handover or poor wireless signal causes the network operator's network trunk line to be bad.	After powering off and restarting, you can automatically search for the base station to switch to a better quality network.
Unable to connect to the network	The USIM card is invalid or has poor contact, bad signal, network connection timeout or you are not in the network service area.	Switch to a valid USIM card or try again in a relatively empty location. If you are in a building, move to the window and try again or unplug the SIM card.
The knob switch is on, but the machine is off.	The shutdown interval is too short, this phenomenon will occur.	Turn off the rotary switch and turn it on again.

BRIEF TECHNICAL INDICATORS

■ POC parts

Operator System	Linux	
RF Parameter	LTE/4G	Band:B1/B2/B3/B4/B5/B7/B8/B12/B20/B38/B39/B40/B41
	WCDMA	Band 1:2100M Band2:1900M Band5:850M Band 8:900M
	GSM	GSM/GPRS:850/900/1800/1900MHz
	Receiving Sensitivity	LTE/4G:≤-100dBm
		WCDMA 900:≤-110dBm
		WCDMA 2100:≤-110dBm
		GSM850/900/1800/1900:≤-109dBm
GPS	GPS	GPS Positioning, Support A-GPS function
	Sensitivity	GPS L1 Band:1.57542GHz
		GLONASS Band:1597.5-1605.8Mhz
		BeiDou:1559.05-1563.8MHZ
		Catch-144dBm, Track-159dBm
		GSM CS:UL 9.6kpbs/DL9.6kpbs
		GNSS current:100mA(GSM/CDMA/UMTS/LTE)
Technology Standard	Data Speed Rate	EDGE:Multi-slot Class 12
		WCDMA CS:UL 64kpbs/DL 64kpbs
		WCDMA PS:UL 384kpbs/DL 384kpbs
	Protocol	HSDPA/WCDMA/EDGE/GPRS/GSM

■ Analog parts

Frequency Range	Tx/Rx: 400-480MHz & 136-174MHz
Type	Dual band, Dual standby
PLL Channel Spacing	5/6.25/10/12.5/25/50/100KHz
Antenna Impedance	50Ω
Frequency Stability	±2.5PPM

■ General

Basic Information	Working Voltage	12V/24V DC
	Working Temperature	-20~50°C
Display	Color display	2.8 inch
Dimension	153mm(L)*78mm(W)*45mm(H)	
Weight	570g	
Sim card type	Normal sim card	