

G5

User Manual

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1. Description of the LED and button

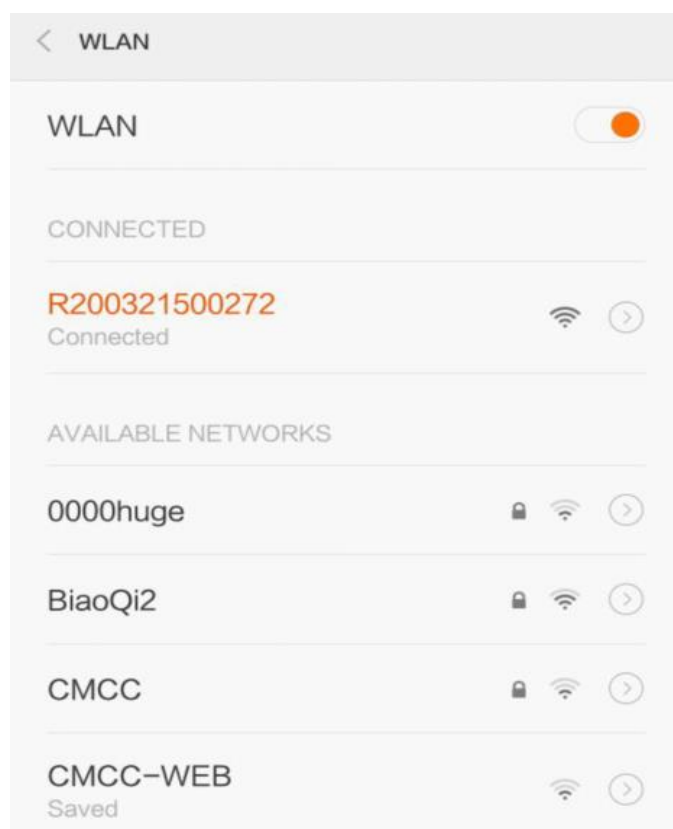
Button & LED	Function
On/Off button	Lightly press on, long press to shut down the receiver
Power LED	red in USB charging mode, green in working mode
Satellite LED	flash according to satellite signal
Datalink LED	flash when receive differential data
Bluetooth LED	The led turns on when connected to receiver.

2. Technical data

Satellites	B1, GPS L1, GLONASS L1, GALILEO, QZSS
System	System: Linux 3.12.10 CPU: Cotex A8 800MHz Storage: 512(RAM), 4GB(ROM)
Communication	Wifi: 802.11 b/g/n BT: Bluetooth2.1+EDR GSM/GPRS/EDGE: GSM850/EGSM900/DCS1800/PCS1900 WCDMA/HSDPA: 2100M, 1900M, 850M, 900MHz
Temperature	Operating temperature: -30℃ - +60℃ Storage temperature: -40℃ - +80℃
Power	Internal battery supply: 3.6V/6.8Ah External power supply: 5V/1A

3. Quick start

Lightly press the middle round key to start the receiver, G5 default WIFI hot opening, use a mobile phone or laptop to search for G5 WiFi hot and connect with it (The hotspot shows by serial number, no password). The connection display is as follows:



Visit G5 web by the IP address 192.168.10.1. The page is as follows: Position, Skyplot, Satellites, Device, Datalink, Upgrade and other. (**Note: Please try to use chrome browse、IE browser and the popular browsers.**)

3.1 Position

This part shows the current positioning status of the device, the solution state, the precision estimation and so on.

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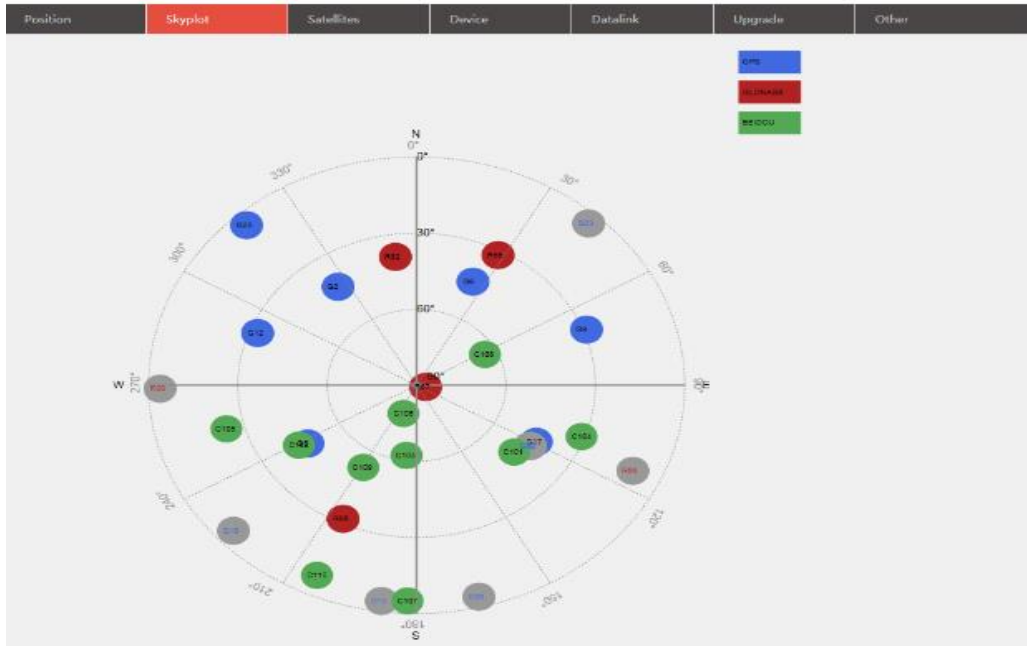
Position	Skyplot	Satellites	Device	Datalink	Upgrade	Other
Satellites	21/31	Solution States	Single			
Longitude	113°25'46.4350"	Latitude	23°9'54.3960"			
Altitude	53.767	HRMS	1.206			
VRMS	1.769	PDOP	1.1			
HDOP	0.6	VDOP	0.9			
Date	2015-11-18	Time	10:50:36			
Differential Delay	0(s)					

3.2 Skyplot

It displays the used and the tracked satellites map.

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3.3 Satellites

This part shows the searched satellite information, including satellite number, Elevate, Azimuth, signal ratio.

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Position	Skyplot	Satellites	Device	Datalink	Upgrade	Other
SateNumber	Elevate	Azimuth	SignalRatio			
G2	44	326	49			
G5	48	238	50			
G6	45	26	50			
G9	29	68	46			
G10	6	227	44			
G12	33	291	49			
G13	5	187	41			
G17	43	120	51			
G23	4	42	32			
G25	5	318	42			
G28	3	166	39			
G42	45	122	42			
G50	45	122	42			
R66	31	28	48			
R67	87	90	44			
R68	32	205	41			
R80	3	269	38			
R82	39	352	49			
R88	10	116	37			
C101	48	129	44			
C102	44	122	42			

3.4 Device

It displays the receiver firmware version, GNSS hardware and firmware version, GNSS serial, CORS connection and network information.

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Position	Skyplot	Satellites	Device	Datalink	Upgrade	Other
Firmware Version	2.0.20151113					
GNSS Serial	18400487					
GNSS Hardware Version	1					
GNSS Firmware Version	1.2Qg9t					
Power Level	3%					
Signal Level	0%					
CORS Connection Status	Disconnected					
Differential Mode	DGPS					
Current Datalink	Internal Network					

3.5 Data Link Settings

This part is to set up the way of G5 obtaining the correct information and the corresponding parameters, G5 supports three kinds of differential correction: SBAS difference, internal network (conventional CORS connection), external difference (transmit the differential correction information via Bluetooth or WIFI hot)

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Position	Skyplot	Satellites	Device	Datalink	Upgrade	Other
Datalink Setting: <input checked="" type="radio"/> SBAS <input type="radio"/> Internal Network <input type="radio"/> External Difference						
Server IP : <input type="text" value="it.nrtk.eu"/>						
Server Port: <input type="text" value="2101"/>						
Access Point: <input type="text" value="MAX3-IGM95"/>						
Username: <input type="text" value="stonex199"/>						
Password: <input type="text" value="25256060"/>						
Connect Immediately: <input type="radio"/> yes <input checked="" type="radio"/> no						
<input type="button" value="Save"/> <input type="button" value="Get Access Point"/>						

3.5.1 SBAS

In data link settings, select the SBAS and click save, and then you can see the searched SBAS satellites appeared in the satellite information, and the solution state shows out the differential solution.

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Datalink	APN	General
Datalink: <input checked="" type="radio"/> SBAS <input type="radio"/> Internal <input type="radio"/> External		
Address:		it.nrtk.eu
Port:		2101
Mountpoint:		MAX3-IGM95 ▼
Username:		stonex199
Password:		25256060
Connect		
Immediately: <input type="radio"/> Yes <input checked="" type="radio"/> No		
Save		Get Access Point
Set successfully		

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Position		SkyPlot	Sate
Satellites	8/31	Solution	Diff
Longitude	113°25'46.3832"	Latitude	23°9'54.1966"
Altitude	46.63	HRMS	2.225
VRMS	4.34	PDOP	2.3
HDOP	1	VDOP	2
Date	2015-11-19	Time	15:38:44
Delay	13(s)		

3.5.2 Internal network (CORS Connection)

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Datalink | APN | General

Datalink: ☐ SBAS ☒ Internal ☐ External

Address:

Port:

Mountpoint:

Username:

Password:

Connect

Immediately: ☐ Yes ☒ No

Save Get Access Point

Set successfully

3.5.3 External Difference

External difference is that transmit the differential correction information to the host equipment via Bluetooth or WIFI hot.

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Position	Skyplot	Satellites	Device	Datalink	Upgrade	Other
Datalink Setting: <input type="radio"/> SBAS <input type="radio"/> Internal Network <input checked="" type="radio"/> External Difference						
Server IP : <input type="text" value="it.nrtk.eu"/>						
Server Port: <input type="text" value="2101"/>						
Access Point: <input type="text" value="MAX3-IGM95"/>						
Username: <input type="text" value="stonex199"/>						
Password: <input type="text" value="25256060"/>						
Connect Immediately: <input checked="" type="radio"/> yes <input type="radio"/> no						
Save Get Access Point						

3.6 Upgrade

This section is to upgrade of the receiver firmware on line, select the firmware file (with the .bin file), and then import it, the equipment will automatically restart to

upgrade.

192.168.10.1

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Details SelfCheck Upgrade

Upgrade Online
Please select a file
Choose File No file chosen
Upload

Satellites Device Set

3.7 Other settings

This part is to set up the access information of the used mobile phone card when use the internal network to obtain the differential correction information.

Position	Skyplot	Satellites	Device	Datalink	Upgrade	Other
<div>APN Setting</div> <div> Agent : <input type="text" value="China Union"/> </div> <div> APN Name : <input type="text" value="3GNET"/> </div> <div> APN User : <input type="text"/> </div> <div> APN Pass : <input type="text"/> </div> <div> <input type="button" value="Save"/> <input type="button" value="Apply Immediately"/> </div>						
<div>Time Zone Settings</div> <div> <input type="text" value="+8"/> <input type="button" value="Set"/> </div>						
<div>Remote Upload</div> <div> Enable: <input checked="" type="radio"/> Yes <input type="radio"/> No </div> <div> Address : <input type="text" value="192.168.10.1"/> </div> <div> Port : <input type="text" value="2015"/> </div> <div> Interval(s) : <input type="text" value="1"/> </div> <div> <input type="button" value="Set"/> </div>						
<div>Output Precision</div> <div> <input type="text" value="AUTO"/> <input type="button" value="Set"/> </div> <p>The precision of output data may be affected ,but device will still output normal NMEA message in a shade environment.</p>						

4. Warning

FCC warning Statements:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

RF Exposure Warning Statements:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment shall be installed and operated with minimum distance 20cm between the radiator & body.

ISED warning Statements:

This device complies with Industry Canada's licence-exempt RSSs

Operation is subject to the following two conditions:

(1) This device may not cause interference and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

RF Exposure Warning Statements:

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment shall be installed and operated with minimum distance 20cm between the radiator & body.