

PDF

NET S9

User Manual

South surveying & mapping instrument co., ltd.



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Chapter1 NetS9 introduction

1.1 Brief

NetS9 is a high-end Beidou CORS receiver based on many years of technology accumulation of SOUTH Company. It is domestic independent satellite navigation system, with independent core technology. Receiver uses small volume efficient core processor of Cortex-A5 with strong performance and fast compute speed. As we know, international mainstream operating systems are Windows and Linux, and NetS9 chooses Linux as the built-in operating system which has powerful onboard software, it is a real embedded control system. Receiver of NetS9 is built with new aluminum alloy design, and it can adapt to the complex work environment with Level of IP67 industrial design and fully meet the CORS system unattended for a long time and stable operation of demand.

New design NetS9 reference station receiver provides diverse interfaces and powerful Web Server functions, etc.

NetS9 designs a fixed stent which is convenient to install and can be installed anywhere. According to the industrial standard to choose receiver internal electronic components, receiver can stable work in 40 °C to 75 °Cenvironment, all parameters are automatically saved in the internal FLASH, parameters will not change when power supply drop, the instrument can automatically connect to the server.

NetS9 can not only upload static data, observation data, satellite data and differential data, but

also it adopts stable and reliable eMMC storage method and it has the automatic cycle storage function. In addition, the users can use external mobile storage devices to backup the static data by USB interface; data can also be downloaded remotely.

NetS9 has flexible configurations, such as local network configuration, WIFI connection, Bluetooth connectivity, and buttons with LED screen configuration, serial port configuration and the network remote configuration. It supports remote restart, remote format the SD card, remote registration and firmware upgrade, which help users easily to maintain and reduce the costs.

The receiver has auto restart function which can work continually after blackout without any setting again; it has long-term and stable capacity of work, which can long-term continuously track satellite signals and record raw data.

NetS9 reference station receiver technology characteristics are as follows:

- 1. 440 channels, fully compatible with all major satellite positioning system;
- 2. Receiver uses smallest Cortex-A5 as core processor, strong and fast;
- 3. Built-in stable and reliable Linux operating system;
- 4. NetS9 is built with new aluminum alloy design, and it can adapt to the complex work environment with Level of IP67.
- 5. The front panel LED display design realizes that setting receiver without PC;
- 6. Providing WiFi function which allows to configure receiver via Wifi connection, greatly

improves the user experience and convenience;

- 7. Support STH, RINEX2. X and RINEX3. X;
- 8. 10000 mAH built-in battery, it can be used as either a main power or uninterrupted UPS power, provides more than 15 hours of battery life;
- 9. Double RJ45 Ethernet interface design, stronger applicability;
- 10. With 8 GB high-speed built-in memory, stable and reliable eMMC storage method, the receiver has the automatic cycle storage function. In addition, the user can use external mobile storage devices(The biggest store of 1TB) to store the static data by USB main interface;
- 11. Standard external 10MHZ frequency input interface, one PPS output interface, one event input interface and weather/tilt sensor interface.

1.2 Index of performance

GNSS character

◎440 channels

COMPASS: B1、B2、B3

GPS:L1 C/A, L2E, L2C, L5

GLONASS:L1 C/A and P , L2 C/A (only for GLONASS M) , L2 P

SBAS:L1 C/A, L5

GIOVE-A:L1 BOC, E5A, E5B, E5AltBOC

GIOVE-B: L1 CBOC, E5A, E5B, E5AltBOC

GALILEO: GIOVE-A, GIOVE-B, E1, E5A, E5B

OUnfiltered, unsmoothed pseudo range measurements data for low noise, low multipath error,

low time domain correlation and high dynamic response

 \odot Very low noise of GNSS carrier phase measurement, the precision of 1 HZ bandwidth < 1

mm

◎The SNR of the dB - Hz report

OProven Pacific crest low elevation Angle tracking technology

OSupport a variety of satellite navigation system

^OSupports real-time static and dynamic dual-frequency RTK, supports both single frequency

BD - 2 calculating model

improve the quality of the data decoding

OIntelligent dynamic sensitivity positioning technology, adapt to the environment changes,

adapt to more and more bad positioning environment and longer distance

©Fully compatible high compact message, easy to form a complete set of data transmission

and software application development

[©]Stable long-distance RTK calculating ability

Position accuracy

Ostatic:

Plane: \pm (2.5mm+1x10-6D), elevation: \pm (5.0mm+1x10-6D)

ORTK:

Plane: \pm (10mm+1x10-6D), elevation: \pm (20mm+1x10-6D)

OInitialization time: Less than 60 seconds

OInitialize the reliability: Generally greater than 99.9%

- ◎Memory: 8GB, can record up to 12 months of the original observation data, (satellite data records for 5 seconds an epoch), Support large capacity 64G of industrial-grade data SD memory card
- ©Position output: 1HZ, 2 HZ, 5HZ, 10HZ and 20 HZ and 50 HZ(depending on the installation options),output original measurement and location of up to 50 HZ

ONaming files: Variety

OData retrieval and transfer: HTTP download, FTP download, USB copy

ONavigation outputs: ASCII: NMEA - 0183 GSV, AVR, RMC, HDT, VGK, VHD, ROT,

GGK, GGA, GSA, ZDA, VTG, GST, PJT, PJK, BPQ, GLL, GRS, GBS and the binary

@Reference outputs: CMR, CMR+, RTCM 2.1, RTCM2.2, RTCM2.3, RTCM3.0, RTCM3. X

OSupport circular storage

◎Support external USB storage

Device interface

- ©2 RJ45 network interface
- ©2 RS232 interface, and support the aerometeograph, inclinometer and all kinds of sensors
- ©1 main USB interface, external USB storage is used to record the original observation data
- ©1 USB interface, the data of receiver internal storage can be downloaded directly by the

interface

- ©3 independent power input ports, ensure the power supply is reliable
- ©1 external clock input interface
- ©1external event input interface
- ©1 GNSS antenna interface
- ©1 WIFI antenna interface

Communication

©Ethernet: RJ45 connector supports HTTP, HTTPS, TCP/IP, UDP, FTP, and NTRIP

OBluetooth: Supports 2.4 GHZ connection

OWIFI: AP and the Client mode

User interface

OA vacuum LCD screen, 8 buttons on the keyboard, the Web user interface

Battery and power supply

©9[~] 28 V DC input

OBuilt-in lithium battery can work continuously more than 15 hours after charged

OPower level: 3.8 W

Environment

OW orking temperature: -40°C ~75°C

[©] Storage temperature:-40 °C ~80 °C

1.3 Appearance structure

1.3.1 Appearance

Receiver of NetS9 receiver appearance is as shown in figure 1-1.Receiver is rectangular in shape; the front panel provides buttons and LCD display function; Rear panel provides multiple interface functions: RS - 232 interface, RJ45 interface, antenna interface, power supply interface, USB interface, etc.





Fig. 1-1 NetS9

1.3.2 Front panel

NetS9 front panel is as shown in figure 1-2; it mainly provides buttons and LCD display

function.



Fig. 1-2 NetS9 front panel

The front panel of each function module is as shown in table 1-1:

Tab.	1-1	NetS9	front	panel	functions
------	-----	-------	-------	-------	-----------

No	Function	Description
1,3	button	View and modify the receiver configuration
2	LED	Check the working state of the receiver and
2	display	function configuration

1.3.3 Rear panel

NetS9 rear panel provides a more diverse interface function, is as shown in figure 1-3:



Fig. 1-3 NetS9 rear panel

NetS9 rear panel function of each interface is as shown in table 1-2:

Tab. 1-2 NetS9 rear	panel functions
---------------------	-----------------

No	Function	Description				
1	WIFI antenna	Connect WIEL ontonno				
1	interface	Connect wiri antenna				
2	power					
2	interface	External power and receiver built-in battery				
2	Input/output	PPS output interface, external events input interface,				
3	interface	a serial port and power interface				
4	RS-232	Static data output, the output difference data output,				
	interface	the navigation data, external interface				
5	USB interface	USB function, power supply interface				
(D145 : 4 C	10 m / 100 m Ethernet interfaces, static and				
6	KJ45 interface	difference data to the server				
7	GNSS antenna					
7	interface	Connect GNSS antenna				
	External					
8	frequency	The external clock input				
	standard					

Chapter2 NetS9 power and battery

NetS9 provides a stable external power while providing a built-in battery as UPS functions. When plug into charger, the internal battery has automatic charging function; in the case of external power failure, it can safely switch to the internal battery automatically and ensure NetS9 stable operation for about 15 hours; similarly, when the external power supply is restored, built-in battery-powered mode can automatically safely switch to external power supply, then internal battery enter into the power storage state.

2.1 Ext power

The right to use an external power supply of NetS9 precedence over the built-in battery. Only when the receiver is not connected to an external power supply or external power failure, the internal battery will work.

For a receiver to work properly, the external power supply must provide 9V DC to 28V DC, and the power must be greater than 5W. When external power is disconnected and the built-in battery is exhausted, NetS9 will automatically shut down; when the power is restored, the receiver automatically starts and its configuration parameters will be restored to pre-shutdown state, and begin normal operation.

Warning: Do not place the external power adapter, its subsidiary plug, and cables to outdoors or in damp places. Do not use an external power to supply power when receiver works in a humid environment.



Warning: External power supply input voltage cannot exceed 28V DC, otherwise the receiver will have a fatal injuries.



2.2 Battery safety

NetS9 uses built-in rechargeable Li-ion battery. When using the battery, please note:

Warnings:

a) If the battery discolors and leaks or has other undesirable phenomena, please do not use;

b) Do not short circuit the battery, disassemble damaged, approaching heat or throw in a fire, avoid direct sunlight;

c) Do not put the battery in water.

2.3 Battery charge & usage

The internal battery will automatically recharge when external power is used. Battery before first use, please fully charged. If the battery is placed for three months without using, first fully charged, then use it. It will take about 24 hours for full charge.

Warnings:

- a) Do not charge the damage or leaking battery;
- b) Do not disassemble the battery and charge alone.

2.4 Conserve battery

The battery should be fully charged before conservation;

If long-term conservation, please ensure to charge once every three months.

Chapter3 NetS9 configuration

SOUTH NetS9 provides a variety of ways to configure the parameters, Including buttons, LCD, WIFI, Web Server, serial ports and Bluetooth. The button configuration and Web Server are the most commonly used configuration methods. According to the actual situation of the user to select the most efficient way to complete NetS9 parameter configuration.

3.1 Keys and LCD configuration

3.1.1 Key function

NetS9 front panel is as shown in figure 1-2, a total of eight buttons. Users can use these buttons to switch on/off receiver, restart the receiver, view and modify the configuration information, and so on.

key	name	Function description					
0	Power	Power key					
Esc	Esc	Return to the main interface, cancel modification					
Reset	Reset	click this key 5sto restart the system					
\$	Enter	Enter the page of parameter modification and					
Enter		confirm changes					

ruble 5 i button introduction of fields	Table 3-1	button	introduction	of NetS9
---	-----------	--------	--------------	----------



~	Up	Turn over the page and reduce parameter values
V	Down	Turn over the page and increase parameter values
*	Left	The cursor moves left
>	Right	The cursor moves Right

3.1.2 LCD interface

After the completion of the system startup, LCD main interface will be displayed as shown in figure 3-1. In the main interface mode, click this key . Users can access to the parameters of the interface for base station to launch coordinate system and modifications of different schemes. The parameters of base station are as shown in figure 3-2.Under the arbitrary parameter interface; press the return key , returns to the main interface.



Fig. 3-1 LCD main interface

And the SV means visible satellite number; BAT means the built-in battery allowance; MB means receiver memory capacity and the REC light keep flashing shows that NetS9 is receiving and recording static data.

Start Base: HERE Diff Type: RTCM3

Fig. 3-2 parameters configuration interface

Then Start Base means start the base station mode, Diff Type means differential data type.

There are three kinds of base station start mode:

HERE: Using automatic repeat coordinates to start the base station

OFF: Manually start the base station

NEW: Using automatic single point coordinate to start the base station

Under the arbitrary parameter interface mode, if you need to modify the parameters, you can press the button and modify the instrument parameters. At this time the cursor keeps flashing, and then you can press the buttons to change the location of the cursor, the button button to modify the size of the parameter values. When these parameters all are changed, if you press the button , it will save the data, the cursor disappears, the new configuration information goes into effect and the instrument return to the interface of Parameter Settings. If press the button , it will not save the data, the cursor disappears, configuration information will restore and save previous information and the instrument return to the interface of Parameter Settings. At the same time, you can continue to press the button to view the other parameters. If you want to configure of base station start mode and sent differential data information directly, the screen lights up when you press any key,



If without operating for a long time, the instrument will automatically closed LCD screen and you can press any key to wake it up.

3.2 The Web Server configuration

When you enter the IP address of the NetS9 in IE browser, then you can access the Web Server system and complete NetS9 parameter configuration.

3.2.1 Login Web Server through LAN

1. Use physical method to connect to the Internet

Users can use a network cable to connect the NetS9 to local PC. NetS9 also can be connected to the local router or switch; we need make sure NetS9 with PC are in the same local area network (LAN).

2. Login the Web Server and set NetS9 parameters

Here NetS9 IP and local PC IP must be set to the same network segment. And you can enter NetS9 IP address in the IE browser, we suppose that NetS9 IP is 192.168.4.24 and input it, then we can enter the NetS9 Web Server system login page is as shown in figure 3-3. Users can choose Chinese or English in the top right-hand corner of the login page through the shortcut key; At the same time, the NetS9 provides the "help" shortcut keys, if the user cannot login system or the system page is abnormal, they are available by clicking on the login page in the top right corner of the "help" to get the solution.

12 topn	n (+):				- 18
			建建中交	Styles.	100
		NEIS9 Web Server			
		Passend:			
		Contract Reset			

Fig. 3-3 NetS9 system login page

In the login page, user input the correct name and password, click "login" to enter NetS9 Web Server system home page as shown in figure 3-4. System default user name and password are as follows: admin, admin. After login system, you can change the password on the "change password" page.

A Note: NetS9 Web Server system only supports Internet explorer browser, the other browsers are not supported!



SOUTH					
admin Dogosti	> Position Information				^
🖵 Status 🖸	Location:				
X Configuration	Lat: 0° 0″ 0.000000″ S	Losz 0° 0" 0.000000" W	Alt: 0.000000 m	Ellipsoid: W55-04	
% Satellite Information	BIK Status:				
	Solution: Autonomous	Correction Delay: 0	HERS: 0.000	VERS: 0.000	
🗇 Data Secord 🔂	Base X: 0.000000	Base Y: 0.000000	Base I: 0.000000	Base ID: NONE	
🖳 Data Transfer 🔂	Diff. format: NONE				
😑 Network Config 🖸	Tracked Satellite(0):				
🏦 Firmware Update 🧧	GPS(0): 元		0L29ASS(0)+ 无		
🐉 User Management 🔂	BD5(0): 无		GALILED(0): 无		
? Help 🔂	SB#5(0):无		QZSS(0): 元		
	Wood Satellite(E):				

Fig. 3-4 home page of NetS9

As shown in figure 3-4, Web Server includes nine functional bars: status, configuration,

satellite information, data record, data transfer, network config, firmware update, user

	.1 1 1	$C_{1} - 1_{-}$	41	f		-1	•	4 - 1-1 -	2 0	۱.
management	and neir	n i neck	The	THINCTION	ac	snown.	1n	Table	1 - /	/
manazomont	and non	· Check	unc.	runction	as	5110 10 11	111	laure	5 4	
0	1									

number	menu	Function introduction		
1	Status	Provides information, working status and positioning		
1	Status	information of receiver system		
		Register, base station settings, the antenna settings,		
2	configuration	satellite tracking settings, instrument control and the		
		default language		
2	Satellite	The current satellite tracking information and		
3	information	satellite Settings		



4	Data record	Set the static data collection interval and format
5	Data transfer	For raw data and differential data transmission
6	Network config	Receiver network parameters and WiFi Settings
7	Firmware update	Receiver firmware upgrade
8	User management	Increase and manage the Web Server user
9	Help	Get the solution

Tab.3-2 the main functions of each menu of Web Server

1) The status menu

The menu of 'status' is as shown in figure 3-5, includes the following pages: system

information, work status and position information.





Fig. 3-5 "receiver status" menu interface

"System Information" provides the NetS9 routine information, receiver model, MAC address and firmware version information etc.; "Work mode" shows NetS9 physical state, such as temperature, voltage, built-in battery and the rest of the storage space; "Information" provides the base station's current location information, satellite status and PDOP value.

2) The configuration menu

The configuration menu is as shown in figure 3-8. Users can set the various parameters of the NetS9 through the "receiver configuration", then save settings and parameters will take effect immediately. The menu interface of Receiver configuration mainly includes: general Settings, the base station settings, antenna settings, satellite tracking settings, receiver control and the default language.

A "General Settings" interface is as shown in figure 3-6. Users can complete NetS9 main

work mode settings and register receiver here.

-	edata 1	(band	> General Configure	11.00	
Q\	Status		Depermentant		
*	Configuration		Bend Tobert	940(AAL17113640	
	forment Contra		Guler	AS940F33E966934E4CA137400682A90DBE0C	Register
	Bean Detug		Engined Deter	39151301	
			Bole setting!		
	Tenelline Tracking		Seek State		
			1000	lotee []	
	Selferit Leidings		Dataline	[₹]	
(R. S)	atellite Information		SPEC		
領	Data Record	0	and the second s		
8	Data Transfer		DEG folarityi	Treparen 🗸	
.0	Detwork Config				
2	Firmmare Update	0		Enter Cencel	

Fig. 3-6 general config interface

a)"Base setup" interface is as shown in figure 3-7. Users can complete basic settings, such as base station coordinates and differential format etc.; Users not only can input the precise coordinates but also can click on the "current position" to get coordinates automatically;

A stain Bagad	🕽 Base Setap		
Status 🙃	COF 101	22	
🛠 Configuration 🛄	PTOE + 101	56	
General Dodig 📼	8700. + 101	57	
Best Letter W	Lout	0 * 0 * 0 000000	
fetellite fracking =	tim	a * a * a accesso	• (•) H = 1
	A241	0 000000	
Betaux Language 📿		Poston	
Né Satellite Information	Base Start Bidet	Automotively Diet Base by Count start	-
🗇 Data Record 🖸		Startflase StopDase	
🗟 Data Transfer 🚺	Convertions	Rtp	V
() Setwork Config 📋	POP Values	10	<u> 110</u>



Fig. 3-7 the	e interface	of base	stations	setup
--------------	-------------	---------	----------	-------

b)"Antenna Setup" interfaces is as shown in figure 3-8 .Users can choose different measuring

methods for antenna height;

ataia Bogod	> Anterios Secur		
🗢 Status 🚨	Antenna Terial UCT	1	
🛪 Configuration 🗖	1003	0	
General Contig 📼	Arteun Belgitt	30	
Attended attended	Beauring Setheds	To the bottom	
Setellite Tracking 🗐	1		
Seining fürrand 🚍			
Befanin Language 🔤	1		
/6 Satellite Information 🛄			
😳 Data Record 🔂			
💷 Data Transfer 🚦			
🕕 Network Config 🚺		Enter Cancel	

Fig. 3-8 the interface of antenna setup

c) The "satellite tracking" interface is as shown in figure 3-9. Users can set different satellite

systems, satellite signal and Mask Angle;



-	atata 1	bgout	> Setallize Tracking			
φ.	Status		Nank Angels 10			
*	Configuration					
1 8	iepartel Conflig		Type	Tignal		
	Jame Setta		ir:	E1-C/A	2	
			95	11-9		
			10	11-0/4	1	
-	Could Language		91			
.% Sate	llite Information		610401	LE-C/A		
	Data Record	0	IL.OWS	324	2	
易	Dota Transfer	8	ILDIAD	LD-C/A	1	
0.5	Wetwork Config		0.041	11-7	1	
3 1	ismuro l'pdate		204	1		

d) "Receiver operate" interface is as shown in figure 3-10.

1.1	adatu 1	logout	> Bernier	Gernte		
0	Status		Madala Se	1/Deckr		
*	Configuration		Item	Robile	Specution	Dianae
	General Cenfid		4	026	Check	3e Action
	Bern Sintur	127		Sette	Check	To Artum
	Antonia Setup Detailiita Tracking		3	Setledala	Check	The Artists
	Restored Device		- 14	155	Check	No Artist
	Befruit Letainer	1	1	Slietura	Check	To Artist
76 Se	stellite Information		- 25	Contraction of the	10022020100	
508 I	Data Record				Check	10
9	Data Transfer	0	Defailt 1	lettings:	Tip/Res estire	will every all parameters to the factory default certrand
0	Network Config			-	PDu	Earthur Date dt
*	Firmure Update	0		Cea	erm.	- scory constant

Fig.3-10 "receiver operate" interface

e) "Default language" interface, here users can choose Chinese or English as display

language.

B "Satellite information" interface is as shown in figure 3-11. You can view satellite tracking

information in different ways, table, figure or skyplot. At the same time, you can also click the

enable/disable to select whether the single satellite signal is available or not.

admin	[logout]	> Tri	cking T	able							
🖵 Status		30.	Type	Elevation Ariss	sh L120	Code	12:00	Code	L5538	Code	State
\times Configuration											
% Satellite Informatio	in 💶										
Tracking Table											
Data Record	Ð										
	•										

Fig. 3-11 satellite information interface

C "Data record" is as shown in figure 3-12. The user can set the data storage format, storage method, file interval, point name, epoch interval, etc; also you can query and download data. "Data download" is as shown in figure 3 - 13, after choose the storage method and date, click on "refresh data " to download collected data or delete data.



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	attain (logouli	> Recenting Config	· · · · · · · · · · · · · · · · · · ·	
Ū.	Status	8	Discoge Option:	Internal Memory	Y
*	Configuration		Interval:	1	✓ *
76.5	atellite Information		File Intervali	1	Ψ #
09	Data Record		Sata Foresti	📀 578 🕥 80/832 8 🕥 80/833	0
	Bearing Series		Point Name	0001	
	Deta Dresland	8	Auto Deletar	Tes Tes	
8	Deta Transfer	0	Frenant	Format Disk	
0	Setwork Config		factoring Roles	Auto Recordina	9
\$	Firmware Update			Start Stop	
$2\dot{r}$	Uper Nesagement	0	Recording Statust	The parcent	
?	Relp				
				Enter Care	el.

Fig. 3-12 data record interface

1	antes 1	Divogoi	> Deta Dominant					
ų.	Status		Deta Sour	** 💽 🖬 Gard 🕥 1	III file Igest 👝 II			
*	Configuration		Salart De	*1	Get Data			
26.5	etellite Information	0	Descinal 1	ips Right shink "Associa	al" hatton Hare as and so	alita		
-	Date Second		lter	File Sate	Size	34	ea.	Selete
	Resorting Config	-	- E			👲 (h	Beeles) [Delete]
	Let & Low Log L		E			👲 (34	Chelon	() (Deleted
9	Deta Transfer	0	10			👲 (a)	initial	(Delete)
0	Network Config					1 (a)	initiat	(Delste)
	Elemente Vodate		8			1 (a)	- Sector	30 (Delete)
101	FILE-BLE CERES	-	243			4 De	minati	30 Daletal
k	User Management		E.			4 16	- Sector	30 Object
3	Help					4.04	the line	30 Deletal

Fig. 3-13 data download interface

D "Data transfer" interface is as shown in figure 3-14. Set to transmit the raw data and

differential SCMRX to the indicated IP & PORT of server.

arget your soccess			NF	ET S9 user man
admin (logout)	> General			
🖵 Status 💽	Type	Part	Input	Output
* Configuration	Serial	LEMD (115204)	8094	Nevigation data
	Serial	COM (115200)	8080	Correction data
Né Satellite Information 🔂	Serial	BLIETOOTH (115200)	8084	Navigation data
🗇 Data Record 🔂	TCP/IP 1	172. 16. 90. 42:6803	8094	Rew observention data
😓 Data Transfer 🔽	NtrigServer	172.16.90.51:6060	8080	Correction data
Seneral 🔤				
Serial port Config 🔳				
Data Flow Config 🔤				
) Network Config 🖸				
🕆 Firmware Update 🔒				
Sk Trar Management				

SOUTH

Fig.3-14 data transmission interface

a) "General" interface is as shown in figure 3-15. Lemo port, serial port, bluetooth port, raw data port and differential port display here, if there is a serial port being occupied, and then the status menu will become green as shown in figure 3-16.

PERSONAL 2	admin	[logout]	> General			
•	Status		Туре	Port	Input	Output
*	Configuration		Serial	LEMD (115200)	2024	Navigation data
		-	Serial	CDM(115200)	8084	Correction data
./k; Sat	tellite Information		Serial	BLIET00TH (115200)	2024	Navigation data
	Data Record		TCP/IP 1	172.16.90.148:6803		Rew observention data
.문.	Data Transfer		StripServer	172, 16, 90, 51:6060		Correction data
	Ceneral					
0	Network Config					



b) "Serial port config" interface is as shown in figure 3-16. Baud rate is 115200; odd/even is

none; there are four kinds of data in 'data flow', raw observation data (RT-27), correction

data(SCMRX)	, navigation	data ((NMEA-	·0183)	and SIC	C observation	data.
--------------	--------------	--------	--------	--------	---------	----------------------	-------

Ψ	Status	0	Ites	Serial Fort	Send for	**	0.66/1	bies	Sana Firm		Snahle
×	Configuration	0	÷,	within	115200	Y	None	~	Nevgator Data	×	2
N Sa	tellite Information	0	-15	CIN .	115200	~	Nane	¥	Correction Data	-	2
-	Data Record		8	811872079	115200	Y	Nove	Y	Nevigation Data	v	1
8	Deta Transfer										
	General				Enter			and a			
	TATAL POST COUTER				Crime			Carles .			
		-									
	INTERP Condition	=									
	Data Flore Desility	-									
-		-									

Fig. 3-16 serial port config interface

c) "TCP/IP config" interface is as shown in figure 3 -17. Select the needed work mode and

1	adain [bood	> 1	9/19 Confis						
φ	Status	0	2148	Bark mide	Local port	Serve 37	Part	Data fire	Statue	ca/et
×	Configuration		1	Castar 🛩		172 16 90 148	6803	Rev Observests	Connected	1
N Se	sellite Information		2	Caster 🔽	222)	172 16 90 51	6060	Correction Data 💟	Discount	
60	Date Second		1	Caster 🛩	3333	172.16.90.208	5050	Para Observisets	3	
8	Data Transfor		4	Caster ¥	1111	58.246.35.130	2010	Rev Observeato:	Discovert	-
	General Period years Config	-	1	Caster 💟	1	58.248.35.130	2010	Raw Observents	Recovery	
	IN D COMP.									
						Enter	Car	NORT		
	Data Fire Goodig					254700				
8	Network Config	0								

data flow, set the ip and port which matched with server and enable it.

Figure 3-17 TCP/IP config interface

d) "NTRIP config" interface is as shown in figure 3-18. Select 'active' to enable the

Ntripserver function, set the IP and Port in Ntripcaster address and NtripCaster port to



transmit correction data (SCMRX).

50	Setellite Information		Setfort Italust	30 Artist
100	Data Record		Stricferent	
8	Data Transfer		Staturi	Biaconect .
	Second		artive)	•
		-	Heip Services	NTRIP-1.0
	HTRUP Canfig		Eagle Hoder	
	Teta Fine Config	-	Theigharter Addressed	172 16 90 51
0	Network Config	٥	PreigCenter Ports	6050
2	Firmure Update		See	
-h	Voer Management		Passworth	
7	Help		Access Point?	prosect.
			StrigCasters	
			Statust	Disconsect
			- Artista	

Fig. 3 -18 NTRIP config interface

e) "Data flow config" interface is as shown in figure 3-19. Here in 'navigation data' interface, you can set the NMEA-0183 data output frequency; in 'SIC navigation data', you can disable /enable the data output; in 'raw observation data', you can set the output parameters as it list for you; Met-Tilt is for Meteorological applications.



L abain	Bogout	> Data Firs Config	NI.								
C Status	0	Norsporten Dotar									
Configuration		3341 t	004	1	~	-871	1	v	-0071	1	~
N Satellite Information		2341 1	V 196	4	~	.1201	1	~			
-		312 Navigation Date	¢.								
in pets secord	-	PST: OFF	× ====	OFF	~	-	OFF	V	1723	OFF	¥
🗟 Data Transfer	0	ITTL OFF		Tost	-	1011	lore	101	4471	loss.	-
General.	3	Care Louis		1011		-	Core	1.41		lock.	-
Secol per Confer-	1.74	MBC1 OFF	V DALI	OFF	~						
107 17 Gentle		Ran Chaerrestion De	rhat -								
1307 Centra		Batgat Tatarvalt	T	× .							
Sata Flow Config		0.0000000000000000000000000000000000000		594 C			-				
() Network Config	0	275 Tabouttor	WhenChang	ped -			~				
2. Firmware Update		SLOBALI Sphemerier	WherCharg	ped .			~				
	-	321 Ephenerial	WherCharg	eri .			~				



E "Network config" interface is as shown in figure 3-20. Including Ethernet config, WIFI

config and Bluetooth config.

ЛH

arget your success

-	adele	logout	> Ethernet Goofig	5					
Ū.	Tatus		Automatic DP	1	-	hić.	۲	24	
*	Configuration			line.		4.0.1	las	- Inca	
N. In	ellite information		10.40014061	pros.	-	10	100	- 400	
66	Data Record		Subset Naukt	255	_1	255	255	10	
	Tara Internet	-	Sefault Satesart	172	- 8	16	- 90		
8	Data Transfer	-	39511	210	-	21	4	120	
0	Network Config		20121	210	-1	51	14	130	
2	Wertief Failing		. Contes	-				34/77	
	WIPS Config								
	See Trent Gestig			E	inter .			Cancel	
	Purt Forestilling								



a)"Ethernet Settings" interface is as shown in figure 3-20. Users select no 'automatically

obtain IP', they can set the receiver network parameters manually. IP address, subnet mask

and default gateway must be matched with the server's for data transmission. And when DNS

was input correctly, we can access to receiver through the network.

b)"WIFI config" interface is as shown in figure 3-21. Here we Choose 'AP' as work mode;

AP_SSID is the host name; AP_Password is the password for connecting to the host and you

do not need a password to login when the AP is not encrypted.

and a	adata (through	> HITL Config	
•	Status		Autors	
*	Configuration		Fork Hole:	AF Giest
N.14	nellite Information		1	pulle and a second s
00	Data Necord		48_3510v	Sanatititized.
<i></i>	Data Transfer		AP_Fairrenti	number and a
- 6	Network Config		AP Decide:	Com V
0.	Ethernet Config	E	iF Gassiell	· · · · ·
li in the second se	WHEN SHITLE		1902 19 Barget	· 142. 168. 0.111. 201. 201. 101. 0
	Nue Triph Getig	125		0 171 16 0 171 FR FR F
	Part Forwarding	122		• 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
1	Restor			and the summer of the second s
£	Firmeare Update			
4	Uper Management			Enter Cancel

Fig. 3-21 WIFI config interface

F "Firmware update" interface is as shown in figure 3-22. The version information shows the current firmware information and release date information. Browse the firmware then upload it to upgrade. The latest firmware of receiver download at www.southgnss.com/ download center/software download/CORS software//firmware.



1	A shin [logost	> Firmina splate			
Ū.	Datus	0	Figurace Informatio	***		
*	Configuration	0	Firmer Section	1.14.14231.244931		
36	Satellite Information	0	Cree Engine Versions	Divise 1.04		
-	Data Record		Balance Sufer	Birectul		
恩	Data Transfer		Barranty Datas	apiboldi		
0	Network Config		Taronare Cheve Seat			
£	Firsware Update		ografiet		(Brown)	
	Deserved Society		Comment Calut	Installation	- provise	
	Splating Config			mananinen		
h	User Management		Statust			

Fig. 3-22 firmware upgrade interface

G "User management" interface is as shown in figure 3 -23. It is used for adding and managing account. Only the administrator can change any parameters of the receiver and manage users; and ordinary users can only view the receiver parameters, but cannot do any changes.

	Decriment 1	-	-					
9	Status	•		Add user				
8	Configuration							
6.1	atellite Information			Fees	Limits of authority	Itatus	Spenating	Operating
11	2200022000411			- 49910.	Additionalise	outlos .	diáda	ellis.
	Data Second							
8	Data Transfer							
0	Setwork Config	0						
æ	Firmware Update							
h	User Management							

Fig. 3-23 user management interface

3.2.2 Login Web Server by the public network

If users need to remote login web server, they need to map the LAN 80 port of NetS9 to WAN port. Assuming that the port 80 is mapped to port 8000, users only need to input public IP and port into the local browser, eg: if the receiver public IP is 222.196.35.76, users only need input: http:// 222.196.35.76:8000 to access web server of NET S9.



Chapter4 NETS9 single station configuration

4.1 NRS Station setup

4.1.1 Add new stations

Add a new station

NRS-Station(Master)[4.01	.150529] - EagleNet	And the second
i 🕨 🔯 😵 🔚 🕨		
X	41 4	
View	Copyright (C) 4.01.150529	
Base	DecoderGNSS 03.03.150520.150520	
Epoch	Novatel 03.03.150401.150520	Rangecmp Range Rangegp
Alert	Trimble 03.03.140102.150520	CMR RT17 RT27
System	RTCM 3.X 03.03.140901.150520	1001-1012, 1014-1017, 10
Service setup	Encode 04.00.141125.150521	
	Kobaire	
	Undulation	
Base Management	 SppEngine 03.00.141107.150521 add a new station 	
Satellite Optioin	Dongle 3990590000037901-20151028	8-EagleNetStation Stati
	License	

Fig. 4-1 new station

Follow the Figure 4-2 to complete the station configurations;

Name	АААА	1	Z ma		Farmatoura
ID	BBBB		Type deenve) PormaciNone
Serial			Server		Client
Port	COM4	-	Port	3	тр 59.152.234.19
100	-		6801		Dest 2013
rate	38400	4			
	Antonna	4			lountpoint HKKS_RT27
-	Antenna	TAnthina_pria		<u> </u>	User
	L1	0	0	0	Password
	L2	0	0	0	Send GGA
aramet	er			5	
x	-2327763.50	0655 B(DD	.MMSS) 23.0732	985795749	North 0
Y T	5387286.42	2178 L(DE	.MMSS) 113.220	63455032	East 0
7	3490EE1 04	1008	. 26 7240		tip 0
- 1	2-109351.0-	10.50	H 20.7349		6
E Z	XYZ	E BLH	Rock	Auto	Test Fixed

Fig. 4-2 station parameters configuration

- 1. Name/ID: Edit a new name and ID for stations.
- 2. Type: Data transmission method.
- 3. Server: Communication port.
- 4. Antenna: Antenna type selection.
- 5. Parameter: Coordinate input, must be XYZ or BLH.
- 6. Fixed: Select it as a fixed base coordinate.
- 7. Add: Add a new station.
- 8. Delete: Delete station.
- 9. Backup: Backup stations, in case you need configure it again.
- 10. Load the backup file.

4.1.2 Service setup

NRS-Station(Master)[4.0	1.150529] - EagleNet	
i 🕨 🔯 😵 💭	⊕, ⊖, ⊕ ∖, 🗲 ●	•
View	-About Copyright (C)	4.01.150529
Base	DecoderGNSS	03. 03. 150520. 150520
Epoch Alert	Novatel SouthGNSS Trimble	03.03.150401.150520 Rangecmp Range 03.03.140102.150520 03.03.150318.150520 CMR RT17 RT27
System	RTCM 3.X	03.03.140901.150520 1001-1012,1014
Service setup	Encode	04. 00. 141125. 150521
	Kobaire	
	Undulation	
Base Management	SppEngine	03.00.141107.150521
Satellite Optioin	Dongle G9905	900000037901-20500101-EagleNetStati

Fig. 4-3 services setup

Follow the Figure 4-3 to complete services setup;

Eagle IP 127 . 0 . 0 . 1 Eagle Port 6060	1	Image: RTCM2.3 (RTK 3 18 19) Image: RTCM2.3 (RTK 3 18 19) Image: RTCM2.3 (RTD 1 3 31 59) Image: RTCM2.3 (RTD 1 3 31 59) Image: RTCM2.3 (RTM 0 CMR 1) Image: RTCM3.1 (1004 1012 1104) Image: RTCM3.2 (MSM4 Image: RTCM3.2 (MSM4	
1021(Helmert/Abridged Molodenski) 🗈 r Toform	1025(Projection Parameters Messages)	
File Save Setting		NRS Setting Port 6800	4
File Save Setting Rinex 2.10 Save Filename Format Rinex 2.10 Exchange of File Interval EPOCH 1	3	NRS Setting Port 6800 I IPV6 Deep-NRS Microsoft SQL UseSQL Server IP 127.0.0.1	4

NET CO

Fig. 4-4 services setup

1.Eagleserver: Communication IP & PORT between station and server software, if the NRS station and NRS server are installed in same PC, the inner IP should be 127.0.0.1.

2.Differential type: Standard differential options.

3. File save setting: setup the static data format and the storage format, also the epoch.

4.NRS setting: Set the port for transmitting the virtual differential to server software.

5.Startup setting: Setting startup items.



4.2 NRS Server setup

 Multi Base [RTCA] [RTCM23] (RTCM00] [RTCM02-MSM] [aCMPa] [CMR] [RTD] 	PORT2 0 PORT2 0 Explose IP (127.0.0.1 Explose PORT (000) Calendar PORT (000) Calendar PORT (000) Calendar PORT (000) Calendar PORT (000)	- Section settings - Auto Net - Pastion Management - Must Need GSA - Fixed statio - Password protect MP amount [1000	Book auto start P Book auto start P Save GGA Movable # Working range P Auto addusee Local OHN
	Running conditions 5/907/30000033800/F8D Register Start love 2015/ 3/2014 58 49 Does Software updated	EF1AAA1790000-20151029(Twa)	Please input register () hite-01 GLESERVER_S

Fig. 4-5 NRS Server setup

Here we just setup the port to achieve the differential which processed by NRS station software. The PORT1 should be same with the PORT you set in NRS station "services setup'-"eagle server", as Figure 4-4 (item 1). Eaglenet IP& PORT is for network CORS, and the inner IP is 127.0.0.1, the PORT should be same with the PORT you set in NRS station "NRS setting", see Figure 4-4 (item 4). After setup everything, just save the settings and run it.

4.3 NETS9 configuration

4.3.1 NetS9 network connection

Power on, manually modify the network parameters through the control panel or WIFI connection.

You can also automatically obtain IP address, but for the convenience of explanation, here server (PC) IP address is 192.168.6.6, NET S9 connect to server (PC) through router, the NET S9 IP is 192.168.6.10.



Fig. 4-6 NETS9 networking topology

1. Router setup

Taking TP-LINK as an example, the router IP set to 192.168.6.1, the login ID & password should be provided by supplier. LAN setting as Figure 4-7:



LAN口设置	
本页设置LAN口的	基本网络参数。
MACt也tL:	40-16-9F-6F-1D-9E
IP地址:	192.168.1.1
子网掩码:	255. 255. 255. 0 👻
注意:当LAN口IP server能够正常 ^一	参数(包括IP地址、子网掩码)发生变更时,为确保DHCP F 作,应保证DHCP server中设置的地址池、静态地址与新
的LANDIP是处于	同一网段的,并请重启路由器。
保存	

Fig. 4-7 LAN setting

WAN setting should be set according to the parameters which supplied by the carrier, as

Figure 4-8:

WAN口设置	
WAN口连接类型:	静态IP ▼
IP地址:	58. 248. 35. 131
子网掩码:	255, 255, 255, 0
网关:	192.168.6.1 (可选)
数据包MTV:	1500 (缺省值为1500,如非必要,请勿更改)
DNS服务器:	192.168.10.19 (可选)
备用DNS服务器:	(可选)
1 保存	

Fig. 4-8 WAN setting



2. server(PC) networking parameters setting

Internet Protocol Version 4 (TCP/IP	v4) Properties
General	
	520 E
You can get IP settings assigned a this capability. Otherwise, you nee	utomatically if your network supports to ask your network administrator
for the appropriate IP settings.	A CONTRACTOR OF TAXABATIC CONTRACTOR TAXABLE CONTRACTOR
Obtain an IP address automa	tically
Obtain an IP address addona Obtain an IP address: Obtain an IP address:	ucally
ID address:	102 169 6 6
ir address:	192 . 166 . 6 . 6
Subnet mask:	255.255.255.0
Default gateway:	192.1 <mark>68.6.1</mark>
Obtain DNS server address a	utomatically
Use the following DNS server	addresses:
Preferred DNS server:	192 . 168 . 10 . 19
Alternate DNS server:	
	F

Fig. 4-9 PC setting

Set the parameters like above Figure and the DNS server IP should be according to the one which provided by carrier.

3. Configure NETS9 via WIFI

NETS9 has WIFI hotspot, while your PC, mobile and tablet can connect to it and configure it more conveniently.

This is the WIFI default factory settings of NETS9:



1	adata (based	> REFL (outing				
Q.	Diatus		Antine				
×	Configuration	٠	Nock Model	• #	Clief		
<i>16</i> .5	atellite Information	0		199 1994			
503	Data Record		ar shin	galaxy			
8	Data Transfer		H.farmeti	southgree com	cn		
8	Setwork Config		47 Zennier	Open		~	
÷.	Ethernet Config		AF Chavelt	1		٣	
	#1F1 Gentur	-	DRP IF Respec	185. 188	0.211.218.285.0		
	Hos linth Georg	23		0 172 M	4/295.258.286.8		
	Post Formations			 iii ii 	1 A/246 DEL 266	ŧ	
	Router	-			- A.		
*	Firmware Update				1		
4	Ever Management			Enter	Carca	£	

Fig. 4-10 NETS9 WIFI default setting

The factory default is no restriction for access. Computer, tablet or smart phones and other

terminals can be connected directly to "galaxy" hotspot without password.



Fig. 4-11 NETS9 default SSID

Input 10.1.1.1 into browser to enter into the NETS9 web server to setup it after connected.



Login Username: admin, password: admin.

N	ETS9	Web	Serve	er	
Username: Password:					
Login				Reset	

Fig. 4-12 NETS9 login interface

4.3.2 Network settings

Set the network parameters after login the web server interface:

1	adain 1	logouti	> Ethernet Courtin	1				
Q.	Status		Automatics IP	1	34	۲	24	
*	Configuration	0		line :	See	16	- Inc	
16.5	stellite Information		1P address)	194	1960	10		
60	Data Record		Subset Savid	255	255	255	0	
	Data Transfer		Befault Satempi	192	160	0	<u>11</u>	
419	Mana manatar	-	BUL	192	168	10	19	
.0	Network Config			211	162	62	2	
	Stherner Coufig			-		100		
	With Source	E.1						
		- 32		Ð	nbar		Canoel	
	Port Forwarding							
	Restor							

Fig. 4-13 NETS9 network parameters setting

4.3.3 Reference station setting

	· · · · · · · · · · · · · · · · · · ·			_	_	_	_		_	
0	Status	8	OR ID:	22						
×	Configuration		\$2000 a 104	56						
			40085 x 12x	57						
	Sere Setup Notaria Setup		Logi	23		13	-	0.04530		(•) ↓ (•) ↓
	Setelline Tracking		Sec	113	1	35	1	2 050000	1	() * () *
	Bernarten Sterrete	21	Alter	0.0000	90;					0.
-	Default Language			Post	an					
16.1	latellite Information	2	Base Start Molec	Laure	-	in Street B	inne fo	Current accest	-	
68	Data Record	8	- Sweneev	StartD	808	SID	Bose	Contract power of		
9	Data Transfer	8	Garactizer	нто					~	
9	Network Config		P2P Valuer	10						
	The Land State State	-		112						

Fig. 4-14 reference station settings

Only base station coordinate need to be edited, the other settings can be kept default. Submit

adain .	llogout	> Antonia listage			
🛛 Status	0	Antonna Sanial 301	a :		
% Configuration		82985	0		
General Config	100	Antenna Reight:	30		
				50	
barrens Terrar		Baanaring Setted:	To the bottom	•	
			-		
Receiver Operate				<u>^</u>	
Befinil) Language					
N Satellite Information					
Data Record				~	
🗟 Deta Transfer	0				
③ Setwork Config			Enter	Cancel	
2 Firmers Update					

all settings when done.

Fig. 4-15 antenna parameters setting

4.3.4 Data recording setting

There are several options for each item which you can set every parameter according to the

actual demand.

atain 1020	> ferming Centre		
🕽 Status 🚺	Drainge Springs	Internal Memory	-
Configuration	Intervals	1	v .
S Setellite Suformation 🚦	Fale Intervals	1	-
🗄 Data Record 🗧	Tata Presatt	💽 ITH 🕥 HOREL 0 🕥 HORED 0	
Terenting Guifty	Print Seal	0001	
Date Semical	Bate Delater	💌 Xee 👘 Xe	
🗟 Data Transfer 🕻	Frenats	Format Disk	
D Setwork Cosfig 🚺	Facording Solar	Auto Recording	~
2. Firmware Update 🚺		Start Stop	
🗄 Eber Management 🚺	Recording Distant	Se second	
? Help 🚺			
		Enter Cancel	

Fig. 4-16 data recording setting

4.3.5 Data transmission

Mode should be set to client mode which means here the receiver provides the raw data. And the raw data should be sent out with an indicated IP & PORT. The IP is where your eaglestation is installed and Port should be set to the same Port as your eagelstation server port. Pls check Figure 4-2 (item 3).



NET S9 user manual

	adain (lingen#4	> 10V/1P Embla										
	Status		Item	Tech mela	Local port	Tarrar IP	Port	Data flow	Status				
*	Configuration		1	Caster 💙	1111	192 168 6 6	6001 ×	Raw Observesto	Creserted	1			
4.5	stellite Information		1	Caster 👻	2022	172.16.90.51	6060	Correction Data	Biacouner				
	Data Record		3	Carter 🖌	iom.	172.16.90.208	5050	Raw Observente	Distant				
8	Data Transfer		4	Canter 🖌	4444	58.248.35.130	2010	Rev Observeatic	Baumant				
	liennal Iorsei port Config		4	Caster 👻	and a	58 248 35 130	2010	Rave Observesto	Summer.	F			
	NDF DF Contig NDDF Contig					T-tar.	Caroo						
	Data Flow Config	-				35100/	1.000						

Fig. 4-17 data transmission setting

4.3.6 Broadcast SCMRX

.5.3	atellite Information		Section Status	No Action		
100	Data Second		StrapServert			
8	Date Transfer		Bratust	Disconnet		
	General		Artist			
			Strip Versinit	NTRIP+1.0	~	
	THE IF CONTAC			121		
	BURD Contin		Caple Buist			
	Data Tipe Cently		StripCaster Address)	192.168.6.6		
0	Network Config	0	PrespCaster Porti	6060		
\$	Firmware Update		Teer)	0488		
dr.	Coer Management	0	Pareneit	3839		
3	Help	0	Annen Tyiett	history	×	
			ThripCartert			

Fig. 4-18 scmrx transmission setting

S9 can create scmrx (with BDS) directly which no need to be processed so that it can be sent to eagleserver directly. Eagleserver can broadcast this correction to users directly.

'Open' this service and select 'eagle' mode.

The caster address should be the IP where the eagleserver is installed and the PORT should be

the same as your eagleserver PORT. See Figure 4-18

4.4 NRS normal status

4.4.1 Station normal status



Fig. 4-19 station display



4.4.2 Server normal status

PRINCHRAS											H.Y.	
enten i Alfrid (ettas i de Villandi Officia i de Villandi Officia i de Villandi Officia i de Villandi Officia i de Villa (ettas i de Villa) (ettas i de Villa) (ettas i de Villa)		28 rel. From rel. From rel. MAR rel. P2 rel. JMR	Tare data-recourse data-recourse data-recourse data-recourse data-recourse data-recourse	Contribution	1 Partie prime 101 (192) 102 (193) 102 (193) 103 (193) 103 (193)	 10+	104.1	Removes sciences innane innane innane innane innane	A	1111111	Trape III Pagement. Trapellent. Trapellent. Trapellent.	4779441 1479944 1270915 1270915 127091 127091
	+ 12-					 _		_				
	=	104.001.0.0	El angel C.R.		iner.		1.5	C.				
	and internal state	in the state of th	Name of Street o	erener) Nervanisk (ser: Ne								

Fig. 4-20 server display

4.5 Port mapping

Every router should have the ability that can map the port. The procedure is making the sever LAN IP & PORT to the WAN IP & PORT so that the users can access even if it is in a different network area. The function is also called NAT (network address transformation) for some routers.

Here taking the TP-LINK router as an example to show you how to do port mapping.



NET S9 user manual

TP-LIN	K 思明管亮,四大绝招	一一安全、眉龍、眉和、眉力
- 201022 - 22549 - 72559 - 20085 - 200	在送 虚拟服务器 进入和时运程	#10000 #100000 #100000 #1000
- Discrit - Adde - FRITA BATHORNARIA BATHORNARIA BATHORNARIA		高井造加新典目,4977开新对武图。 新华置
	虚拟服务器	
	虚拟服务器定义了广域网服 有对该广域网服务端口的访 服务器。	务端口和局域网网络服务器之间的映射关系,所 问将会被重定位给通过IP地址指定的局域网网络 输入服务器端口号
	服务端口号:	6060 📕 (XX-XX or XX)
	IP地址: [9261.6806 — 输入服务器IP地址
	协议:	₩L 输入服务器IP地
	状态:	生效 • 址: 192.168.6.6 其它设置如图,设置完成后,
	常用服务端口号:	请选择▼
	保存返回帮助	

Fig. 4-21 port mapping configuration

Server Port: The port you need map (6060).

IP: Local server IP (192.168.6.6).

The other settings keep default.

After completing the port mapping, type the WAN IP+PORT (eg: 58.248.35.130:6060) into

browser, it means port mapping succeed when getting the source table.



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(5) 2:0805:Environ:10 (0.00:0.00:1.1:02.1.1:0005:conn:0.0:02.00) ST0:2451:S12112021:S441:S12112011.2114 (1.1.1:04(1).1:04(1
0100, 2, 68:00, 8-5 (-46, 5, -61, 7, 5, 41, 1, 6, 68:00), 66:00, -66:00, -67:00, 68:00, 27:0, 68:00, 27:0, 67:0, 10, 2
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2018,202,514,145,41,214,324,61112,53,110,7257111521,224,517,3562,517,2562,50756,2562,50751,210,162111,101211,102110,102111,102110,102111,102110,102111,102110,102111,102110,102111,102110,102111,102110,102111,102110,102111,102110,102111,102110,102111,102110,102111,102110,102111,102110,102
15: 2, 202, Tayleta - , CIM-23, Per 13: 43, F.O., 2020/20105, et al., P.M. 2020, 2021, 2020, 2020, 2021, 2020, 2021, 1011, 1021, 11, 102
(a) Consequences of the residual to the second decision of the rest wave, the rest wave, the rest (b) rest (b), rest (b), rest (c), r
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(2) 2:02.5:Exclusion:10: St. St. 11: COMPACEMENTS: SOCIES INCOMP. STR. MEDICINAL SOCIES (SOCIAES SOCIES: 11: 11: CES
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10/12/12/20/20/10/10/10/10/10/10/10/12/20/10/10/10/10/10/10/10/10/10/10/10/10/10
(a) 2:525: Statistic matches 20, 11, 115, 44:110:52,000,0105 (source); 3:098,01, STE 20,00, STE 200, STE 200, 115, 13
01-2,225,1-1-4-4-4,211-25,40-113-43,1-0,7520000125,,1-2,500,

Fig. 4-22 source table list

Herby, South Surveying & Mapping Technology Co., Ltd. declares that this GNSS RECEIVER, NET S9 is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. In accordance with Article 10(2) and Article 10(10), this product allowed to be used in all EU member states.

Use the GNSS RECEIVER in the environment with the temperature between -20 $^\circ C$ and 45 $^\circ C$.

The device complies with RF specifications when the device used at 20cm from your body.

Adapter shall be installed near the equipment and shall be easily accessible.

The plug considered as disconnect device of adapter

Adapter Manufacturer: : South Surveying & Mapping Technology Co., Ltd.

Model: ZL-030HL1802000CN01

Input: 100-240V~, 50/60Hz, 1.0A Output: 18V2.0V

Specifications Hardware Version: SIRIUS500 Software Version: 1.09.200703.R4A5GL

		Emi	ssion Informatio	on	
Technology	Freq	uency	Emission	DE Davier	Field Characte
recinology	From	То	Designator	REFOWE	Fied Stiength
BT	2402MHz	2480MHz	F1D/G1D	4.93dBm(EIRP)	
BLE	2402MHz	2480MHz	F1D/G1D	2.57dBm(EIRP)	
2.4GWIFI	2412MHz	2472MHz	D1D/G1D	13.45dBm(EIRP)	
G SM 900	880MHz	915MHz	GXW/G7W	32.68dBm (Conducted)	
G SM 1800	1710MHz	1785MHz	GXW/G7W	29.83dBm (Conducted)	
WCDMA Band I	1920MHz	1980MHz	F9W	23.24 dBm (Conducted)	
WCDMA Band VIII	880MHz	915MHz	F9W	23.26d Bm (Conducted)	
LTE Band 1	1920MHz	1980MHz	G7D/W7D	23.14d Bm (Conducted)	140
LTE Band 3	1710MHz	1785MHz	G7D/W7D	22.82 dBm (Conducted)	
LTEBand7	2500MHz	2570MHz	G7D/W7D	23.88 d Bm (Conducted)	
LTE Band 8	880MHz	915MHz	G7D/W7D	23.35 d Bm (Conducted)	
LTE Band 20	832MHz	862MHz	G7D/W7D	22.83d Bm (Conducted)	
LTE Band 38	2570MHz	2620MHz	G7D/W7D	23.66dBm (Conducted)	
LTE Band 40	2300MHz	2400MHz	G7D/W7D	23.92dBm (Conducted)	
GPS	1575.42MHz	1575.42MHz	1	I	8

Manufacturer:South Surveying & Mapping Technology Co., Ltd.

Address:No.39, Sicheng Road, Tian He District, Guangzhou, China

FCC Warning

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 and can radiate radio frequency energy and, if not installed and used in accordance with the 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.

Radiation Exposure Statement

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