Standard Configuration

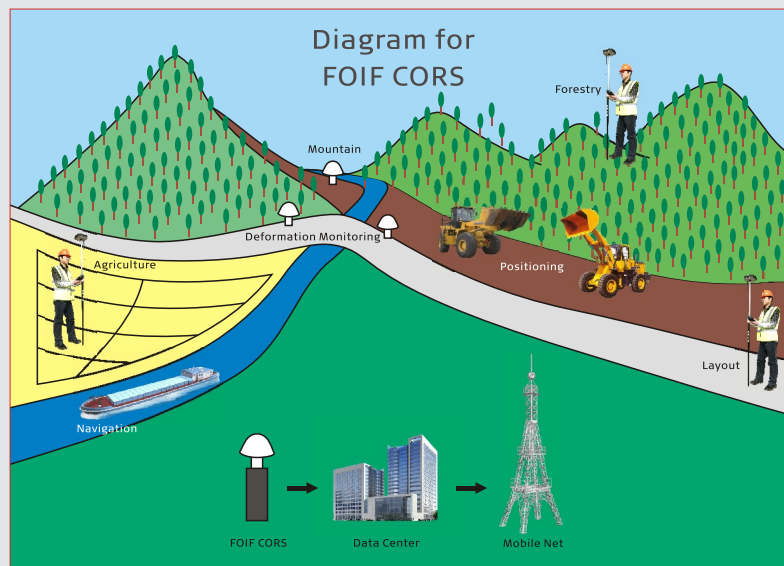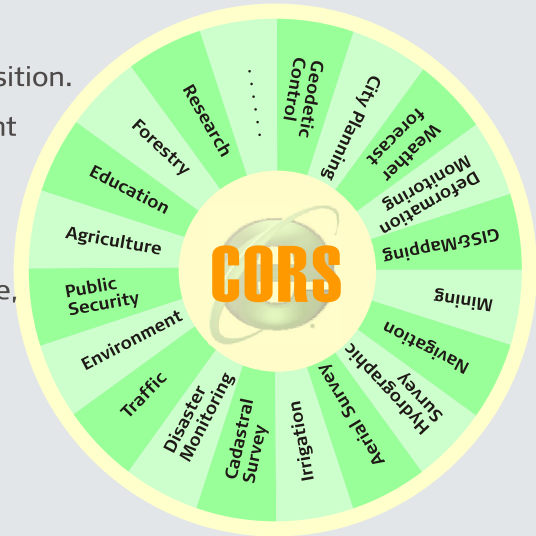## Equipment list

- Choke-ring antenna — 1pc
- Fixing parts for choke ring antenna — 1pc
- Transfer cable for choke-ring antenna (30m) — 1pc
- A200 Server — 1pc
- Surge-protected socket — 1pc
- UPS battery (Supply by local market) — 1pc
- Controller for UPS battery (1KVA, Supply by local market) — 1pc
- Lightning protection equipment (Supply by local market) — 1pc
- Server software — 1pc

Choke-ring antenna

Server

UPS battery
(Supply by local market)

Application field

- Big construction project which need high precision position.
- Advanced RTK distribution method for offering efficient and quick real-time data at the range of 50km.
- Real time deformation monitoring for the bridges, highdams etc.
- Real time disaster monitoring for earthquake, landslide, etc.
- Education in the colleges which have survey subjects.
- Other industry which depend on the high precision positioning GNSS.
- Land management and city planning.

CORS

Geodetic Control · City Planning · Weather Forecast · Deformation Monitoring · GIS&Mapping · Mining · Navigation · Aerial Survey · Hydrographic Survey · Irrigation · Cadastral Survey · Disaster Monitoring · Traffic · Environment · Public Security · Agriculture · Education · Forestry · Research

Diagram for
FOIF CORS

Forestry
Mountain
Deformation Monitoring
Agriculture
Positioning
Navigation
Layout
FOIF CORS   Data Center   Mobile Net

Specifications for A200 CORS

Specifications for A200 CORS		
GNSS Engine	Trimble BD970	Novatel OEMV-2
	220 channels，GPS/GLONASS	54 channels，GPS/GLONASS
	GPS：L1 C/A、L2E、L2C、L5	GPS：14L1、14L2
	GLONASS：L1 C/A、L1P、L2 C/A、L2P	GLONASS：12L1、12L2
	SBAS： L1 C/A、L5	2SBAS
	GIOVE-A：L1BOC,E5A,E5B,E5AltBOC1	
	GIOVE-B：L1CBOC,E5A,E5B,E5AltBOC1	
	GALILEO：reserved for upgrading	
	Format：CMR、CMR+、RTCM2.x、3.x	CMR、CMR+、RTCM2.x、3.x
Time of initialization	<10 seconds	<10 seconds
Reliability of initialization	>99 .9%	>99 .9%

	Contents		Specifications
Accuracy	RTK	within 20km	H：±10mm+1×10^{-6}·D
			V：±20mm+1×10^{-6}·D
		20km-45km	H：±30mm+1×10^{-6}·D
			V：±50mm+1×10^{-6}·D
		45km-90km	≤1m 3D
	Static collection		H：±3mm+1×10^{-6}·D
			V：±6mm+1×10^{-6}·D
	Navigation (RTD)		≤1m 3D

Illustrations, descriptions and technical specifications are not binding and may change

FOIF Since 1958
It`s professional

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TÜV   CE   ISO-9001 DNV CERTIFIED FIRM

Local Dealer:

A200 GNSS CORS

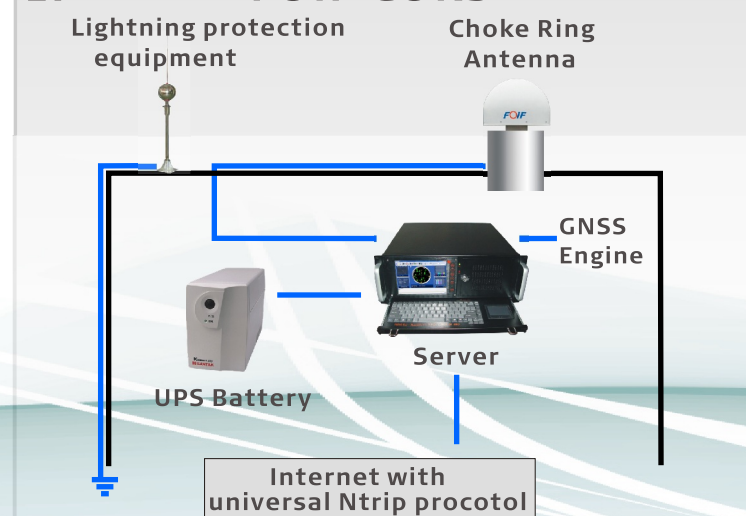## To create *Value* for customers

CORS

Summary

With the develop of computer information technology and related technology, Based on GNSS reference net and data center, CORS (Continuously Operating Reference Station) with its high precision positioning service and other related integrated service, becomes the continuously operating satellite positioning integrated system.

Equipped with industry standard GNSS engine (Trimble, Novatel, Javad...) supports improved performance on the high precision position jobs and related infrastructure constructions.

At beginning, CORS definated as permanent satellite reference station. But now, it is not only a reference station, but also a system integrated by many reference station.

Advantages

◆ Integrated Terminal Sever
◆ The Terminal Server used automatic controlling platform with 4U industry standard.
◆ High precision, stable choke ring antenna.
◆ Excellent GNSS signal applied by the special cable and high -strength protected shield.
◆ Setting up on fixed place , easy for your positioning.
◆ RTCM, CMR, CMR+ etc. are all available.
◆ UPS battery ensure the system working without any stop.
◆ Control the situation of system operation by real time checking reference and customers information.
◆ Compatible with other brands GNSS products.
◆ Multi-reference is possible by combining the existed CORS.
◆ Wireless signal transmitting is optional

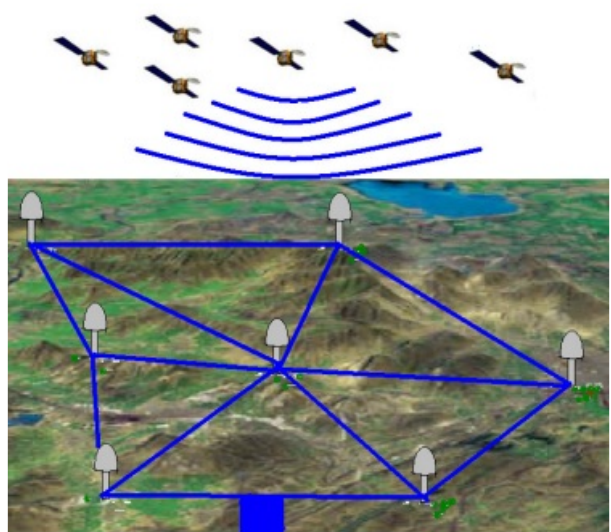## Configuration and related specifications

1. FOIF CORS

Lightning protection equipment
Choke Ring Antenna
GNSS Engine
Server
UPS Battery
Internet with universal Ntrip procotol

CORS Server
INTERNET
Mobile Net

Configuration:
◆ Single CORS fixed at special position with one professional choke ring antenna, one set Integrated Terminal Server, one set professional CORS data sever software.
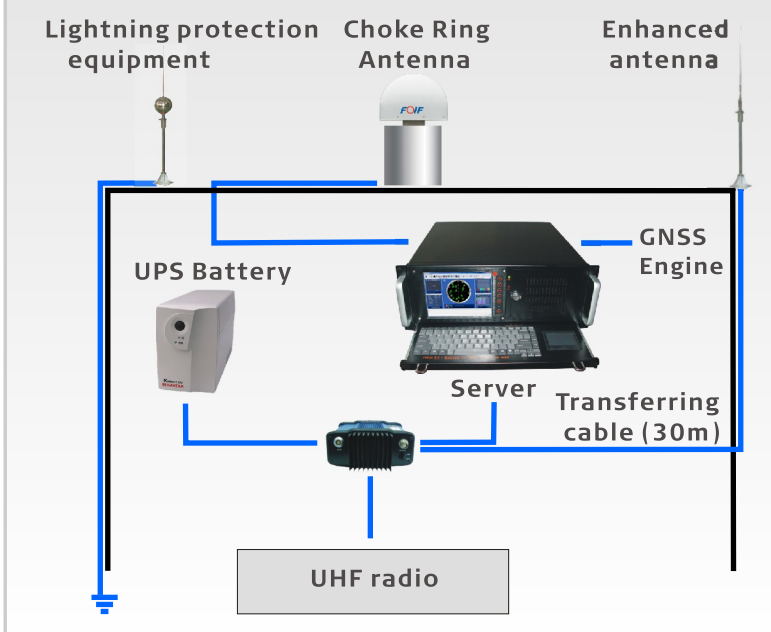
Operating:
◆ FOIFNET: The difference data transfer to CORS server through GPRS or CDMA. The rover could get these difference data through CORS sever by GPRS or CDMA. Then you could start working by high precision fix solution.
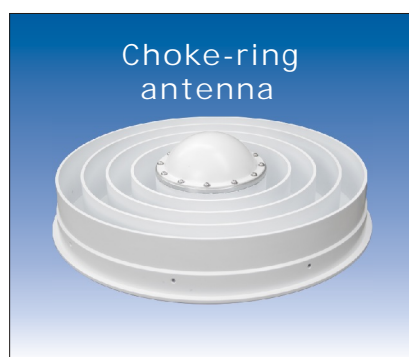
◆ NETRTK:The CORS antenna transfer the satellites' signal to server. Then difference data would be calculated by the server. The rovers register the CORS server by mobile net and get the user names and passwords then start working by high precision fix solution.

2. FOIF CORS

Lightning protection equipment
Choke Ring Antenna
Enhanced antenna
GNSS Engine
UPS Battery
Server
Transferring cable (30m)
UHF radio

Configuration:
◆ Single CORS fixed at special position with one professional choke ring antenna, one set Integrated Terminal Server, one transfer cable and one set professional CORS data server software.

Operating:
◆ The satellites' signal is receiver by CORS server. The difference data will emitted through the radio. The rovers could start working by high precision fix solution.
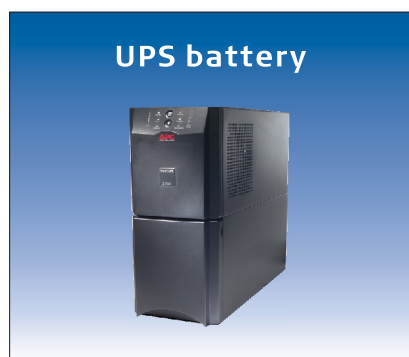
High precision choke-ring antenna

Choke-ring antenna

Specifications:
Freq.: 1565-1620 MHz(L1)
       1215-1265 MHz(L2)
Resistance: 50Ω
VSWR: ≤1.5:1
Gain (LAN L1)：38±3dB
Gain (LAN L2)：39±3dB
Noise: ≤1.5dB
Polarization: right-hand circular polarization

Operating voltage：3-12VDC
Operating electric current：≤40mA
Connector：TNC
Weight：≤5.2kg
Hunidity：100%
Operating temperature：-45℃~+65℃
Storage temperature：-55℃~+85℃

Professional battery (Supply by local market)

UPS battery

Specifications:
Output voltage: 220V
   Freq. in
output voltage : 50±0.2%
Volumn:1KVA
Converting time: 0ms

Input voltage: 115-300V
   Freq. in
input voltage : 40-60
Size:400x145x220mm
Weight: 7kg

Integrated CORS server

Server

Configuration:
Cabinet: stainless steel, high temprature proof
Keyboard: matched with sever, comfortable for using
Mouse: touchpad for mouse
Front ports: 2USB
Light: 1POWER，1HDD
Cooling system: lower noise, dirty proof, moistureproof
Mainboard: universal ATX
CPU: high speed
Battery: UPS (ATX is optional)
Size: 482.6 × 354.8 × 451.5 mm

LCD:
Type: SVGA TFT LCD(8.4 inch)
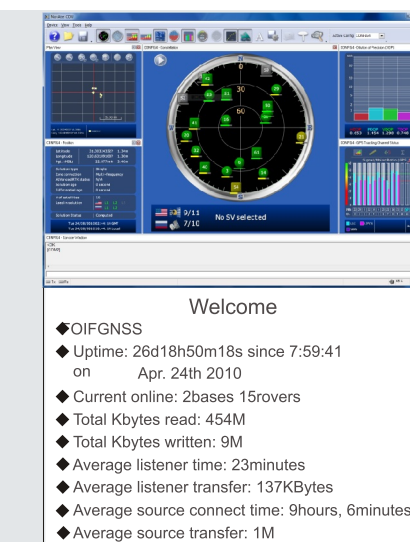Resolution: 800 × 600dpi
Displayed area: 170.4 ×127.8mm
Back light: LED
Illumination: 350cd/m²
Contrast: 350：1
Max angle:（H）120/（V）100

Environmental specifications：
Operating temperature: -10℃~+50℃
Storage temperature: -20℃~+60℃
Humidity: 10~95%
Vibration: 50~500Hz，1.5G

Software: FOIF-Caster

1.Name: FOIF-Caster
2.System&Advantages
   System:Linux
   Advantages: Opening&Stable operating system
             Strong anti-virus function
             Unlimited amount of resource
3.Multi-base is supported, several rovers accessing this system together is possible；
4.Easy to use without any professional knowledge；
5.Ntrip for its protocol, RTK receivers of other brands are all compatible in this CORS system。

Welcome
◆OIFGNSS
◆ Uptime: 26d18h50m18s since 7:59:41
   on   Apr, 24th 2010
◆ Current online: 2bases 15rovers
◆ Total Kbytes read: 454M
◆ Total Kbytes written: 9M
◆ Average listener time: 23minutes
◆ Average listener transfer: 137KBytes
◆ Average source connect time: 9hours, 6minutes
◆ Average source transfer: 1M

FOIF-Caster