HRS-1 CORS

◬ APOGEE®
LEADING WITH TECHNOLOGY

GNSS Reference Station

HRS - 1 CORS
SOLUTION FOR GNSS NETWORK

KEY FEATURES

Multi constellations Tracking

574 tracking channels
Supports GPS, Beidou, GLONASS,
Galileo, SBAS, QZSS, etc.

High level accuracy

Provides millimeter level accuracy
no matter where you are.

Powerful Battery

High capacity (7.4V/6800mAh) Li-ion
battery to ensure continuous operation.

Multi Network Connection

Supports GSM, NTRIP, Point to Point/Points.

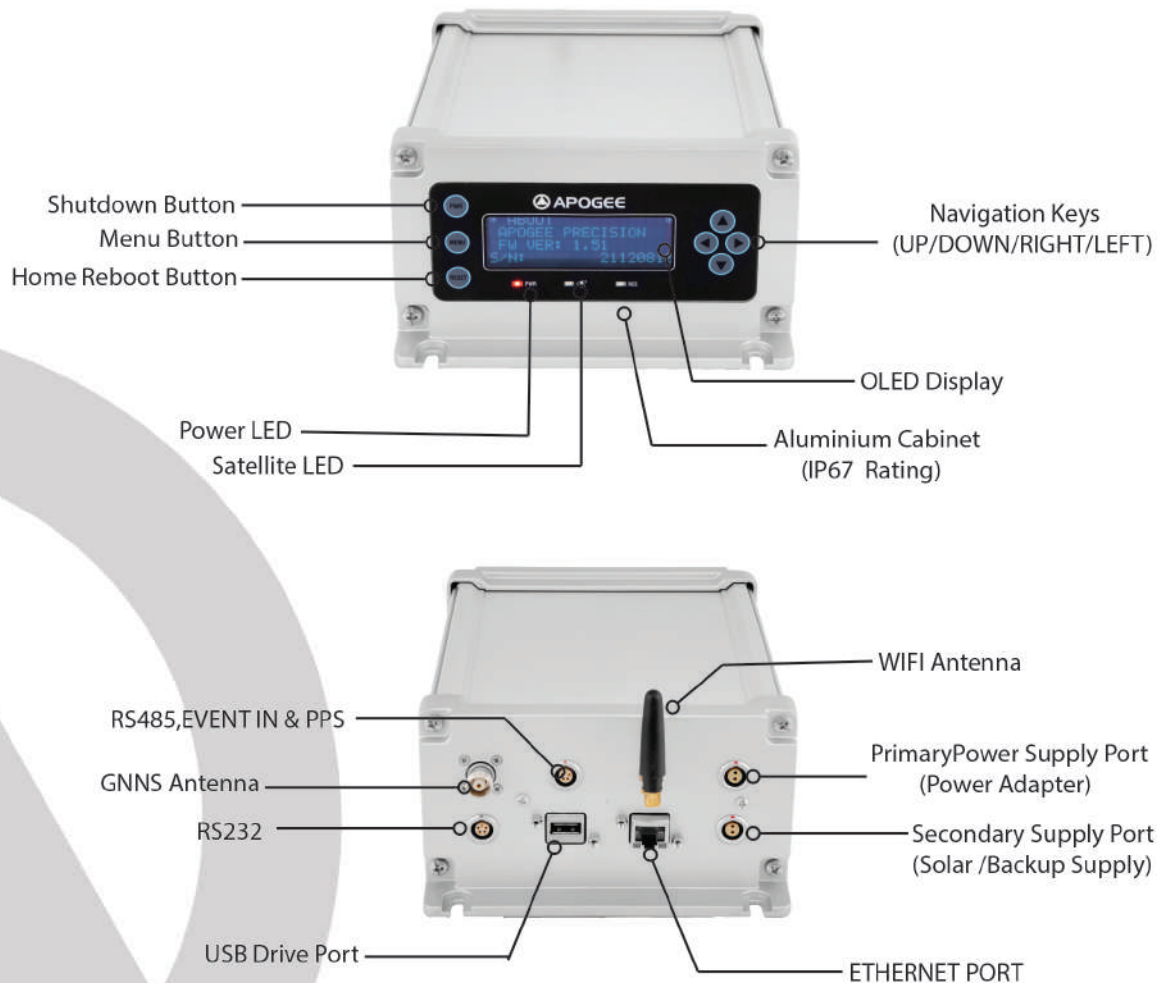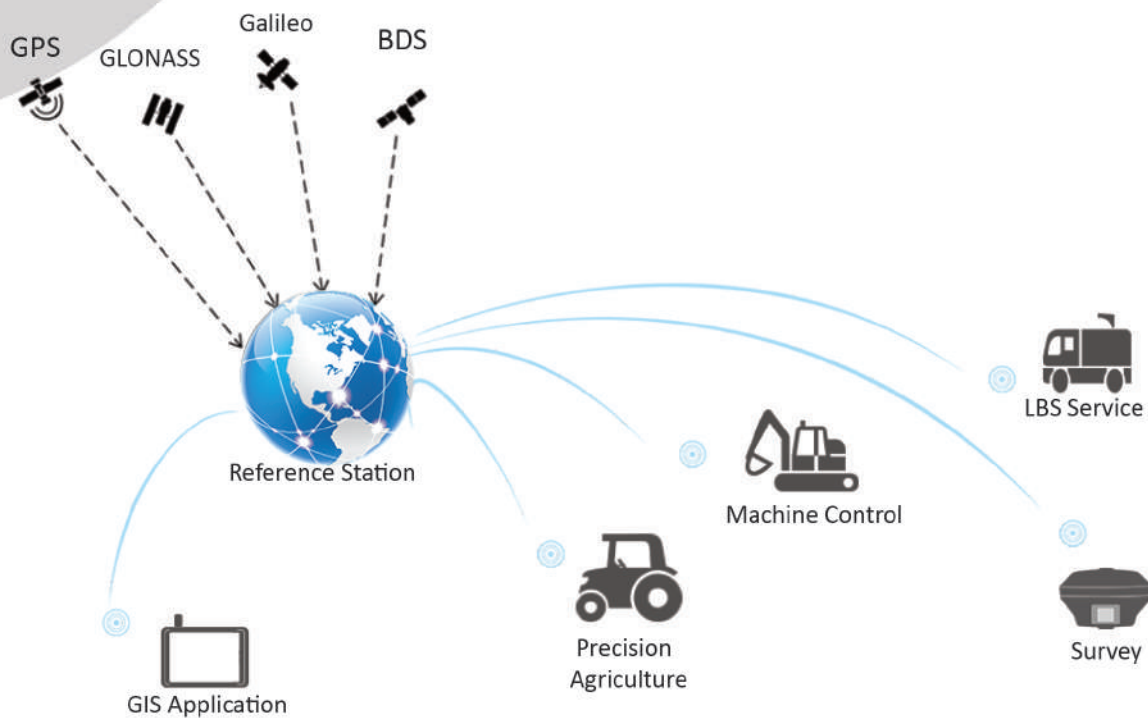| Full-constellation	IP67	LINUX OS	Web Server	24/7 Hours Operation	Large Capacity Memory

GN 100
ANTENNA

1. Support GPS L1/L2/L5, GLONASS L1/L2 and
   BeiDou B1/B2/B3 Galileo E1/E5a/E5b/AltBoc, L-Band and SBAS
2. Provides good signal tracking performance when
   satellites are at low elevation angle.
3. Water-proof and dust-proof design ensures absolute seal
   of kernel parts, capable for work in harsh environment.
4. Lightning proof circuit inside protects the LNA from surge immunity.
5. Multi-feed design provides stable phase center and multipath rejection capability.

HRS - I CORS
SOLUTION FOR GNSS NETWORK

Shutdown Button
Menu Button
Home Reboot Button

APOGEE
HB001
APOGEE PRECISION
FW VER: 1.51
S/N: 2112001

Navigation Keys
(UP/DOWN/RIGHT/LEFT)

Power LED
Satellite LED

OLED Display

Aluminium Cabinet
(IP67 Rating)

WIFI Antenna

RS485,EVENT IN & PPS

GNNS Antenna

RS232

PrimaryPower Supply Port
(Power Adapter)

Secondary Supply Port
(Solar /Backup Supply)

USB Drive Port

ETHERNET PORT

APPLICATIONS

GPS
GLONASS
Galileo
BDS

Reference Station

LBS Service

Machine Control

Survey

Precision
Agriculture

GIS Application

HRS - 1 CORS
SOLUTION FOR GNSS NETWORK

⊘APOGEE®

TECHNICAL SPECIFICATIONS

SIGNAL TRACKING

574 channels for simultaneously tracking	
GPS:	L1 C/A, L1P, L2C, L2P, L5
BeiDou:	B1, B2, B3
BeiDou Global:	B1C, B2a
GLONASS:	L1 C/A, L1P, L2 C/A, L2P
Galileo:	E1, E5a, E5b, E6
QZSS	Reserved
SBAS:	WAAS, EGNOS, MSAS, GAGAN

COMMUNICATION

4 Lemo Ports	One 2-pin Lemo port for power supply and battery charging. One 2-pin Lemo port for solar / backup supply. One 5-pin Lemo port (RS485 Protocol) One 5-pin Lemo port (RS232 * 2 Protocol)
1 Standard USB port	Connect with external storage card
1 RJ45 LAN Ethernet port	Supports protocols HTTP, TCP/IP, FTP, NTRIP
	- 1 PPS output - 1 Event input
1 SMA male Connector	For Wi-fi stabilize
1 TNC connector	GNSS Antenna connector

POSITIONING SPECIFICATIONS

Post Processing	3 mm + 0.5 ppm Horizontal 5 mm + 0.5 ppm Vertical
Single Baseline RTK	8 mm + 1 ppm Horizontal 15 mm + 1 ppm Vertical
Network RTK	8 mm + 0.5 ppm Horizontal 15 mm + 0.5 ppm Vertical
DGPS	<0.4m RMS
Standalone	1m 3D RMS
SBAS	1.5m 3D RMS

DATA FORMAT

Correction data I/O	RTCM 3.X, CMR (GPS only), CMR+(GPS only)
Position data output	ASCII: NMEA-0183: GSV, RMC, HDT, VHD, GGA, GSA, ZDA, VTG, GST, PJK, PTNL Extended NMEA-0183: BDGGA, GPNTR, GPCDT, GPHPR
Observations	RTCM, RINEX

USER INTERFACE

Front panel display	OLED Display Buttons for configuration
Web User Interface	Allows remote configuration, data retrieval and firmware updates

Data Logging

Maximum 20 Hz data logging rate	
Internal	8/16 GB
External	1 TB
Log File	5 mins to 24 hrs
Data retrieval and transfer	FTP and USB

ANTENNA SUPPORT

Recommended Antenna	GN100

ENVIRONMENT

Operating temperature	0 °C to + 50 °C
Storage temperature	-10 °C to + 60 °C
Humidity	Maximum 100 without condensation
Waterproof and dustproof	IP67
Shock	Rugged aluminium case with rubber ring seal

PHYSICAL

Size(L × W × H)	204 mm × 156.3 mm × 87 mm
Weight	1.586 Kg
Housing	Rugged aluminium housing

TIME PRECISION

GPS+Glonass+Beidou	20 ns

ELECTRICAL

Power consumption	15W
External power input	12V DC (max. upto 18V)
Integrated internal Battery	7.4V/6800mAh Li-ION
Seamless switching between external and Internal Power source	