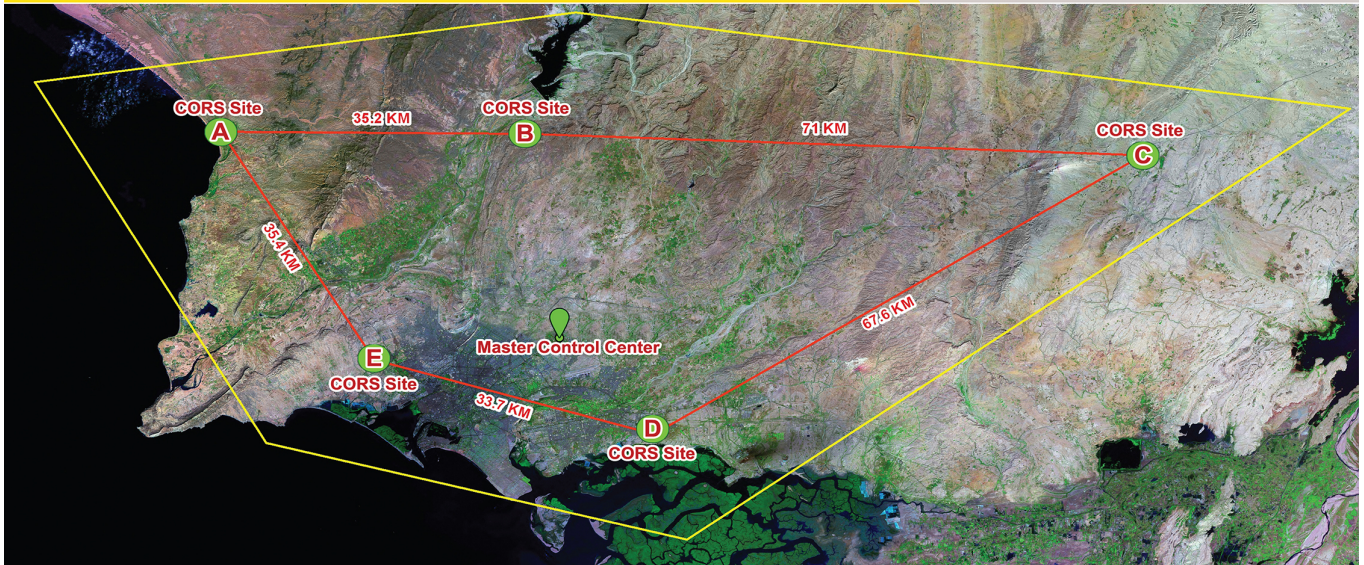


PAK-REHBER PRECISE POSITIONING SERVICE



Geographic data plays an extremely crucial role in all kinds of spatial design, planning and applications, hand to hand with efficient usage of resources, in all organized societies. Cadastre and mapping works necessitate the usage of up-to-date geographic bases in order to manage and conduct all kinds of spatial works including structural and infrastructural ones.

Today, a variety of industries including civil & construction, asset and cadastre management, precise GIS and mapping, precision agriculture, mining, port management, utilities and transportation – just to name a few - now requires centimeter level positioning in real time.

Pak-Rehber precise positioning service provides positioning professionals in a variety of industries with instant access to Real-Time Kinematic (RTK) corrections utilizing a network of permanent (fixed) continuously operating reference stations. Centimeter level accuracy is now available on demand (real-time), anywhere inside and 20 Km outskirts of Karachi with unmatched reliability. Pak-Rehber positioning service is highly cost effective and efficient, super convenient, simple to use and best of all it's always on. Only authorized users can use the Pak-Rehber precise positioning service.

PRECISE POSITIONING SERVICE

IS IT EASY TO USE PAK-REHBER SUBSCRIPTION SERVICE?

Yes! The basic easy workflow for use of Pak-Rehber corrections is as follows:

HOW IT WORKS

- CONNECT**
Just power up your RTK enabled GNSS connect to the system via data SIM.
- CORRECT**
Pak-Rehber service delivers cm-accurate corrections tailored for your geographic location.
- COLLECT**
Collect your data with precision and confidence for accurate mapping.



APPLICATIONS

SURVEYING APPLICATIONS

- o Topography & Cadastral Surveying
- o Construction Survey
- o Control Surveying
- o Marine Survey

MAPPING & GIS APPLICATIONS

- o Mapping
- o Asset Management
- o Public Safety
- o Deformation monitoring

MACHINE GUIDANCE APPLICATIONS

- o Precision Agriculture
- o Precision Mining

RESULTS

BDS/GPS/GLONASS

X: 2248024.0131999999 m LAT: -24.947911687 N
Y: 5311019682.33000033 m LOT: -67.138986986 E
Z: 2679850.2751000000 m H: 14.914733 (14.871633 - 0.05 + 0.0931) m

PRECISION (1Σ)
Horizontal: 0.42 cm Vertical: 1.75 cm

ACCURACY (1Σ)
Horizontal: 1.73 cm Vertical: 3.17 cm

Parameters	Mode	Technical Specification	
Scope	Navigation	Within and extendable to 100KM away from coverage area	
	Position	Within and extendable to 30KM away from valid coverage area	
Service	Navigation	Navigation, GIS information collection and update	
	Position	Mapping & Surveying, cadastral inventory, urban planning, construction, deformation monitoring	
System Accuracy ¹ normal condition	Real time	Horizontal ≤ 4cm	Vertical ≤ 8cm
	Post-processing	Horizontal ≤ 4mm	Vertical ≤ 8mm
Latency	Navigation	Horizontal ≤ 2m	Vertical ≤ 3mm
	Real time	< 500ms	
Useability	Navigation	95.0% (in 365 days) (exclude internet unavailability, power supply, ionospheric scintillation) 99.0% (in one day)	
Completeness	Position warning time	95.0% (in 365 days) 99.0% (in one day) < 6 seconds	
Compatibility	Navigation & Position	It is able to generate international RINEX data and compatible with standard differential format RTCM, so it's compatible with all kinds of post processing software and third party receivers (GPS and GLONASS only)	

Note: Above accuracy index is based on WGS-84 coordinate system

