DL-GN-201 Technical Specification

GNSS Displacement Monitoring System

GNSS displacement monitoring system supporting full-constellation and multi-frequency GNSS signals, RTK, DGNSS, ground-enhancement, and PPP modes for millimeter-level positioning in bridge, dam, slope, mine, high-rise, tower, and heritage-structure monitoring.

System Category	DL-GN
Signal Type	GNSS displacement
Measurement Range	Millimeter-level positioning
Sampling / Response	GNSS observation with realtime displacement calculation
Communication	4G or RJ45 Ethernet
Protection / Enclosure	IP65
Power Supply	9-24 VDC
Installation	Reference station and rover station installation

Key Features

- Supports full-constellation, multi-frequency GNSS reception and multiple differential positioning modes.
- Provides project, device, displacement, relative displacement, alarm, and history-query data workflows.
- 4G and RJ45 options support field cabinet and platform integration.
- Technical basis may reference GB/T 18214.1, GB 9254, GB/T 4208, GB/T 2423.10, GB/T 4857.5, and GB/T 17626.2.

Typical Use Cases

- Bridge, dam, slope, mine, and high-rise displacement monitoring.
- Reference and rover station networks requiring stable antenna mounting and open sky view.

Deployment Notes

- Install the reference station on stable ground with open sky view and a rigid antenna foundation.
- Install rover stations so the antenna and measured object remain structurally consistent.
- Retain applicable GNSS and enclosure standards including GB/T 18214.1, GB/T 4208, and GB/T 17626.2.

Technical Highlights and Standards

- Full-constellation GNSS
- RTK / DGNSS / PPP modes
- Millimeter-level displacement
- 4G or RJ45 transmission

- IP65 protection
- GB/T 18214.1 reference

Branding, supplier names, phone numbers, email addresses, physical addresses, logos, customer lists, prices, and original supplier model identifiers have been intentionally excluded from this public specification.