



RealUE Mobile Testing System

Portable Multi-Service Synchronous Testing System

Using commercial handsets that reflect the true subscriber experience.

| Feature

- All-in-one backpack: portable, single-operator operation
- Built-in battery for up to 8 hours of continuous testing
- Up to 14 commercial handsets; 4-operator parallel benchmarking
- Multi-technology: 2G / 3G / 4G / 5G (SA/ NSA)
- Automatic indoor positioning (gyroscope, <0.3% deviation)
- Highly sensitive GPS for high-speed rail & highways
- QR-code pairing avoids cross-unit interference
- Centralized data management and analysis

| Application

- Mobile operator network benchmarking
- Indoor coverage: malls, offices, airports
- Lifts, escalators and stairwells
- Highways and high-speed rail
- Subways and tunnels
- Campuses and public venues



| Introduction

Ascentac RealUE Mobile Testing System is an intelligent, all-in-one backpack solution that lets a single engineer perform professional multi-network mobile field testing and benchmarking — indoors and outdoors— using commercial handsets that reflect the true subscriber experience.

| Description

Measuring real network quality in the field traditionally means hauling bulky equipment, dedicating several engineers, and wrestling with cables and external power — slow to set up and hard to move through buildings or onto a train. Ascentac RealUE Mobile Testing System removes those barriers.

Ascentac RealUE Mobile Testing System is a portable, multi-device and multi-technology field test solution housed in a single backpack. A tablet controller manages all test configuration and real-time measurement, while a rugged chassis delivers the processing power and secure device connectivity required for multi-device testing and multi-network benchmarking. Its compact, lightweight design enables one engineer to carry out professional indoor and outdoor testing — from drive tests along highways to walk tests through buildings, lifts and stairwells — built around three principles: operational efficiency, centralized control, and comprehensive information.

| Product Advantage

Compared with a traditional drive-test setup, Ascentac RealUE Mobile Testing System consolidates the entire test rig into one backpack — cutting equipment, manpower and setup time while improving mobility and data quality.

Item	Traditional Drive Test	RealUE Mobile Testing System
Portability	Bulky equipment, hard to move	Single backpack, fully portable
Operators needed	Multiple people	One engineer
Power	External supply for long tests	Built-in battery, up to 8 hours
Connection	Cables / USB, complex setup	Wi-Fi or cable, quick & stable
Test devices	Mostly dedicated units	Commercial handsets (real QoE)
Deployment	Lengthy equipment setup	Fast, ready-to-use deployment

System Components

Ascentac RealUE Mobile Testing System consists of three building blocks working together over Wi-Fi:

Tablet Controller	Test Handsets	Chassis & Backpack
• Configures and delivers test plans • Manages data files • Monitors terminals & progress • Displays real-time measurement	• Mainstream commercial Android terminals • Measure the live network • Support GSM / UMTS / LTE / NR • Capture L1/L2/L3 signaling	• Houses 8–14 test terminals • Wi-Fi connection to tablet • Automatic connectivity detection • Unique QR code per case

Two Flexible Test Modes

Mode 1 — With Chassis

The tablet controls and monitors the backpack over Wi-Fi; the chassis connects to the handsets via USB; collected data is uploaded to the centralized analysis platform.

Mode 2 — Without Chassis

The tablet connects directly to the handsets over Wi-Fi and uploads data to the centralized analysis platform — a lighter setup for rapid deployment.



| Key Functions

Multi-Service Testing

- Voice: Voice Call, CSFB, VoLTE, VoNR, EPS Fallback, with PESQ / POLQA MOS scoring.
- Data: Ping, FTP upload/download, multi-FTP, HTTP page/upload/download, video play, speed test, traceroute, email, PBM, SMS and more.
- Scanner: R&S TSME6 across 5G NR SA/NSA and LTE, including ACD and Top-N cell measurement.

High-Accuracy Positioning

- Highly sensitive GPS for reliable outdoor testing on highways and high-speed rail.
- Bluetooth gyroscope module for automatic indoor positioning — airports, malls, lifts, escalators, stairwells; positional deviation < 0.3%.

Real-Time Monitoring & Statistics

- Real-time status, parameters, events and dropped/blocked-call monitoring per device.
- Live statistics: success rate, delay, throughput and MOS scores during testing.
- Battery, temperature and CPU indicators for both chassis and handsets.

Indoor & Outdoor Coverage

- Indoor: pre-defined floor plans, automatic/manual pinpointing, coverage-distribution display, JPG/PNG/BMP map import, per-floor log storage.
- Outdoor: high-performance GPS, online/offline maps, real-time GPS coverage, user-defined parameter display, site-detail verification.



Specification

Main Unit

Model	RealUE Mobile Testing System
Dimensions(mm)	400 × 300 × 72
Weight(kg)	3.2
Material	Carbon fiber
CPU	Intel, 4 cores / 4 threads, 2.00 GHz base
Wi-Fi (GHz)	2.4 / 5.8
Storage	256 GB (customizable); 4 GB / 8 GB memory
System Battery	Built-in 10.8V, 6800 mAh × 2; 4–8 hours of continuous operation
Operating System	Windows
Interfaces	8 × Type-C + 6 × Type-A; RJ45 Gigabit; 8 × 3.5 mm audio; DC5525
Power	DC 12 V – 24 V; rated < 70 W
Operating Temp. (° C)	-10 to +45
Max. Terminals	14 handsets

Backpack Options

Material	ABS shell + high-density Oxford fabric
Size (cm)	35 × 49 × 14
Weight (kg)	1.18

Backpack specifications are subject to batch variation

Supported Devices

Tablet Controller	Samsung Galaxy Tab S-series
Test Terminals	Samsung Galaxy S26 / S25 / S24 / S23 / S22 / S21
Scanner	Rohde & Schwarz TSME6

Additional commercial handset models can be supported on request — please contact Ascentac for the latest compatibility list.



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For the latest information regarding this product, please visit our website at <http://www.ascentac.com>



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