

XCAT-MAIS

Massive MIMO air interface simulator

XCAT-MAIS is a leading air interface simulation solution that allows engineers to replicate realistic radio wave propagation in laboratory environments. Its system architecture is fully scalable and flexible, with individual phase and amplitude adjustment per path, replicating the wireless channel environment of UEs. XCAT-MAIS offers various real-world test scenarios such as fading, path loss, mobility, and M-MIMO simulations. The operator can simulate complex field tests in the lab using XCAT-MAIS.

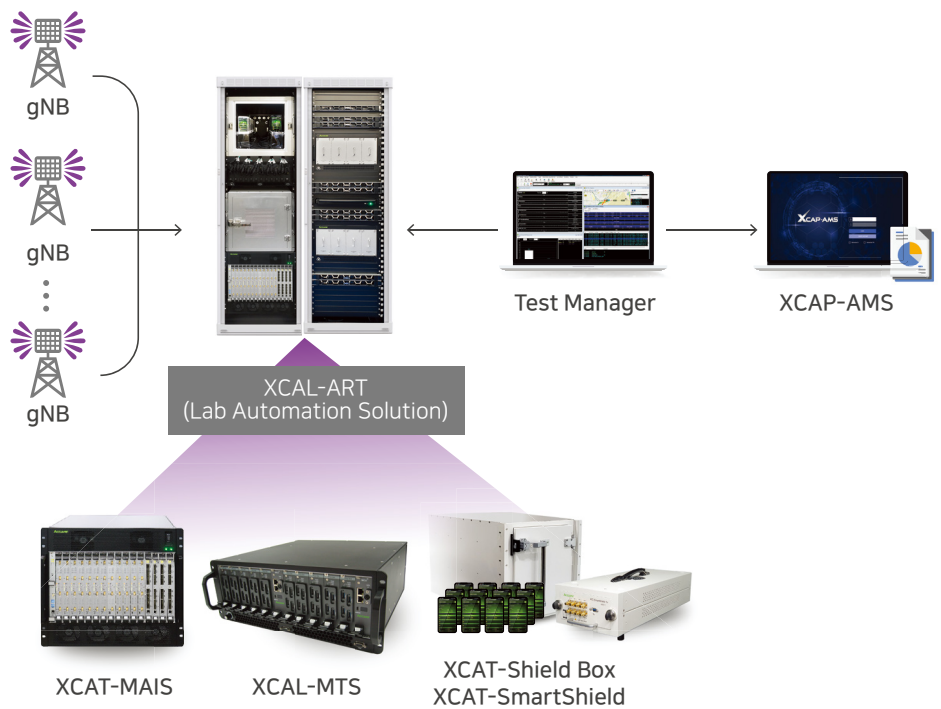
XCAT-MAIS can be seamlessly integrated and utilized as a Lab Automation Solution (XCAL-ART) in conjunction with other Accuver solutions, including XCAL-MTS, XCAT-SmartShield, Test Manager, and XCAP-AMS.

Features

- * Automated self-calibration for CR satisfaction (5G)
- * User-adjustable amp/phase
- * Monitor BS/UE inputs & outputs at each RF port
- * User-defined scenarios and associated channels
- * Automatic/manual call set up
- * Selectable KPI logging and in-depth Analyzer
- * Easy & simple system expansion by adding slot cards

Functions

- * Support latest wireless technology
 - : 5G, Massive-MIMO, Beamforming
- * Simulate various test environment
 - : Scattering, Reflection, Diffraction simulation by Multi-path fading channel
- * Distributed lab environment
 - : With MAIS, BS and UE don't have to be co-located, allowing international users to log in and access system resources at any time



Title	Spec.
Frequency	300 ~ 6,000MHz
Channel Bandwidth	100MHz
Insertion Loss	0dB
Path Loss control	0 ~ 89.5 dB, 0.5 dB step
System Delay	3.1 us
Calibration tolerances	$ \Delta\text{Amplitude} < 0.35 \text{ dB}$, $ \Delta\text{Phase} < 3 \text{ degree}$ using external calibration hardware
RF Interface	Scalable by 4, up to 64 per chassis, TRX port
Max. power	+0 dBm (CW) per RF port (input/output)
Channel Models	ITU Ped. A/B, Veh. A/B, EPA, EVA, ETU, HST, 2D/3D SCM
Multi-path	8 per connection, each ranges from 0 to 25 us
Doppler Frequency	Up to 450 Hz (1350 Hz for HST)