Datasheet

MobilityEngine™ 5G RAN Software

Deployment-ready Software for 3GPP 5G NG-RAN

FEATURES

MobilityEngine™ is Cloud-Based 5G enabled software:

- For Operators: quick to deploy
- For OEMs: range of options to integrate on cloud and hardware
- For Channel Partners: add 5G portfolio
- For Neutral Host: New business model and revenue

BENEFITS

- Platform-independent software with integrated support for all major specific SoCs
- Off-the-shelf software built from the ground up for usability and maintainability
- Flexible architecture for rapid application extension and simplified future upgrades to cloud and centralized environment
- Deployment-proven with major trial and deployment activities across the globe
- Professional Services and global technical support from trials through deployments

Ready for deployment on Carrier Grade, slice-aware 5G, application ready Virtualized RAN

The Radisys MobilityEngine™ software delivers pre-integrated, deployment-ready software for 3GPP 5G NG-RAN - ideally suited for Micro, Pico and small cell deployments — accelerating mobile operators' time to-market for 5G networks.

The Radisys MobilityEngine™ turnkey solution, built on the foundation of market-leading Trillium software and applications, can be deployed as standalone or SRIT (Set of Radio Interface Technologies) consisting of 5G, LTE and UMTS protocol stacks along with agile RRM, SON and OAM components.

Radisys MobilityEngine supports both FDD and TDD deployments for paired and unpaired band, enabling customers prepare for early 5G solution and able to scale easily from small to large deployments.

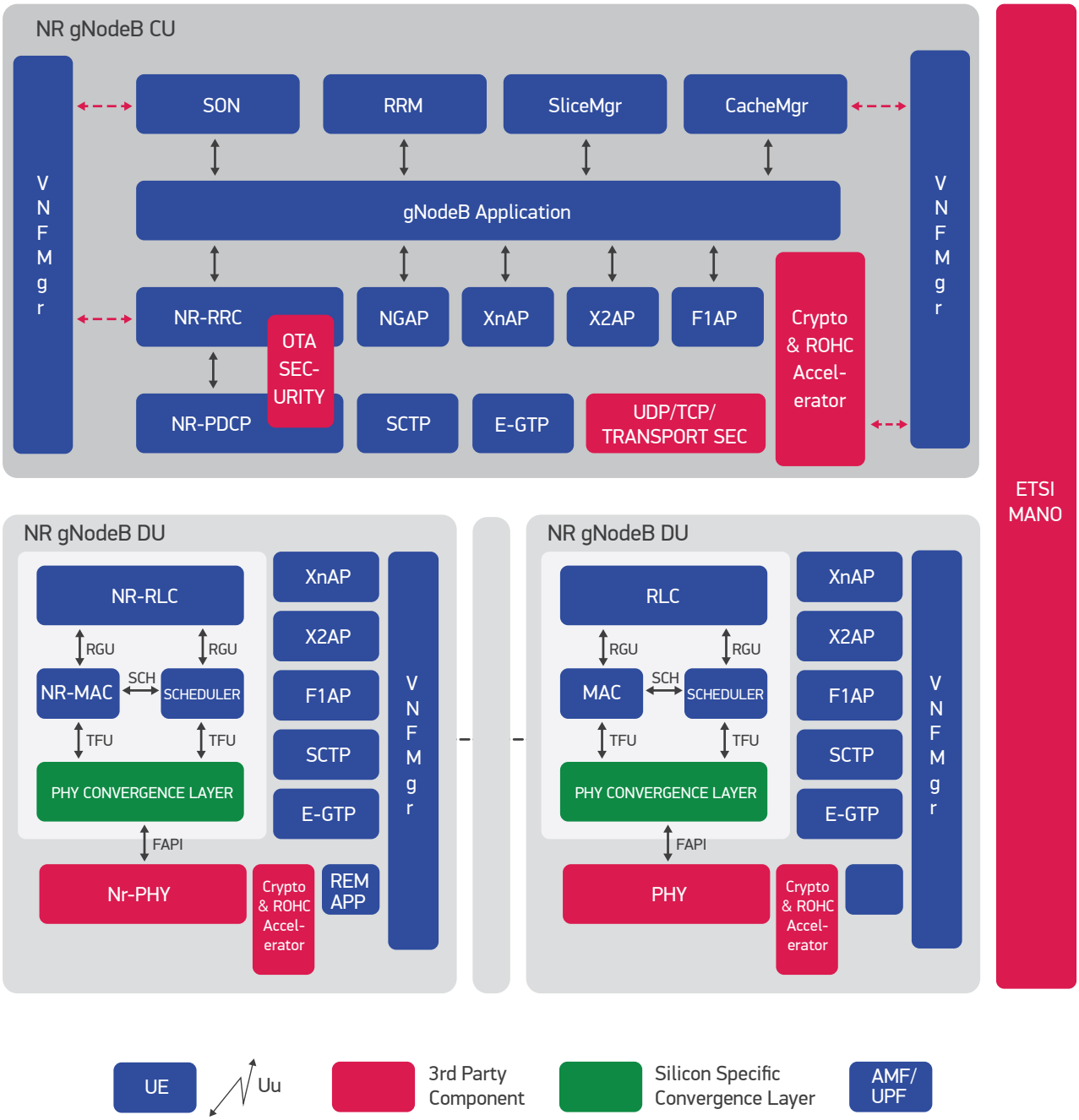
The solution built upon a carrier-grade, slice-aware application-ready C-RAN platform that supports flexible CU-DU and CP-UP split, allowing mobile operators to maximize the speed of network functions running in a virtualized environment.

An open interface based architecture allows cost-effective, multi-vendor equipment interoperability providing ease of integration with the existing and new network ecosystem depending on the operator's requirements. The solution agility addresses all three use case families – eMBB, URLLC, mMTC as well as addresses a diverse set of deployments such as private networks and neutral host.

Why Radisys and MobilityEngine Solution?

- Radisys is a trusted partner: collaborating with market-leading silicon vendors for decades.
- Your customers benefit by working with Radisys because of our integration and verification processes with market-leading silicon vendors. This further amplifies our ability to bring your solution to market—faster.
- Integrated and system verified with leading System on a Chip (SoC) platforms, providing an off-the-shelf, deployment-ready implementation.
- Provided as a source code, MobilityEngine™ includes the Trillium 5G eNodeB application, radio resource management (RRM), radio environment monitoring (REM), self-organizing network (SON), schedulers, OAM and all Trillium protocol layers for L2 and L3.
- Comprehensive Professional Services - Radisys has a strong technical team of experts with hands on expertise building and deploying systems. Our team has often been used as extensions to our customer's R&D teams.

PRODUCT ARCHITECTURE



KEY FEATURES

- Channel bandwidth 20 – 100 MHz
- Flexible Numerology, Mini-slot, Slot aggregation, SS Block, SS Burst, CORESET, PRB Bundling, Multi-TRP, Power Management
- Multi-beam support, Beam management
- NSA and SA Architecture
- ENDC via EPC (Option 3/3a/3x)
- ENDC via 5G-CN (Option 7/7a/7x)
- NR-E-UTRA DC (Option 4/4A)
- Higher Layer Split (Option 2)
- NR Carrier Aggregation
- RRC_INACTIVE State, RAN Area based paging
- MCG SRB, SCG SRB, Split SRB, PDCP Duplication,
- ON Demand System Information
- QoS Features 5QI, SDAP
- RAN Network Slicing and Resource isolation

KEY SPECIFICATIONS

TS 38.211	NR; Physical channels and modulation
TS 38.212	NR; Multiplexing and channel coding
TS 38.213	NR; Physical layer procedures for control
TS 38.214	NR; Physical layer procedures for data
TS 38.215	NR; Physical layer measurements
TS 38.300	NR; Overall description; Stage-2
TS 38.321	NR; Medium Access Control (MAC) protocol specification
TS 38.322	NR; Radio Link Control (RLC) protocol specification
TS 38.323	NR; Packet Data Convergence Protocol (PDCP) specification
TS 38.331	NR; Radio Resource Control (RRC); Protocol specification
TS 38.401	NG-RAN; Architecture description
TS 38.413	NG-RAN; NG Application Protocol (NGAP)
TS 38.423	NG-RAN; Xn Application Protocol (XnAP)
TS 38.425	NG-RAN; Xn interface user plane protocol
TS 38.473	NG-RAN; F1 Application Protocol (F1AP)
TS 38.474	NG-RAN; F1 data transport
TS 37.324	Service Data Adaptation Protocol (SDAP) specification
TS 37.340	NR; Multi-connectivity; Overall description; Stage-2

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