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Arttha5G Network Listening Module (NLM) Datasheet

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Arttha5G Network Listening Module (NLM) – Overview

Arttha5G NLM is a solution to help telecom operators globally overcome the challenges of GPS signal dependancy coverage and enable deploy small cells seamlessly. 5G small cells must establish synchronization and configure upon startup by detecting external network activity to avoid any potential conflicts with other base stations.

NLM allows to measure RF signals from neighboring base stations, but also to decode their overhead messages for various self-configuration purposes.

Arttha5G NLM Solution Benefits

- Simplifies the deployment of 5G small cells.
- The solution can be customized to meet the specific needs of customer projects.
- Network information for the 5G neighboring cells required for Self-Organizing Networks (SON).
- Perfect alternative to GPS blackouts in indoor environments and is more accurate than Precision Time Protocol (PTP).

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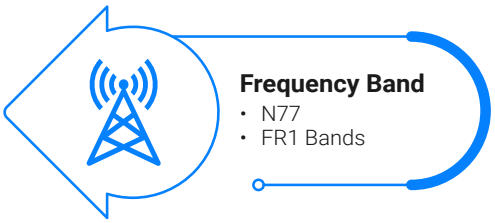
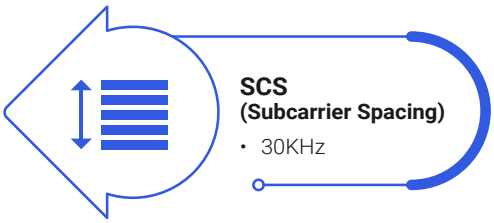
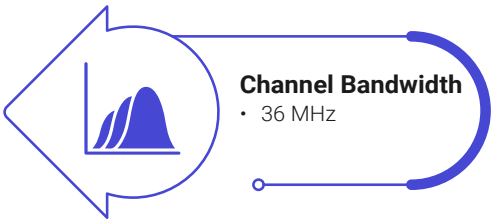
Network Listening Module - Features



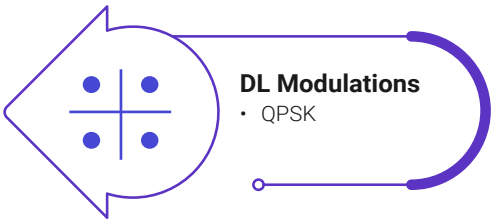
Frequency Band
- N77
- FR1 Bands



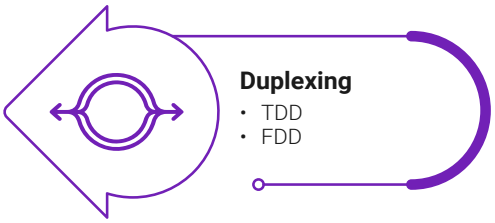
SCS
(Subcarrier Spacing)
- 30KHz



Channel Bandwidth
- 36 MHz

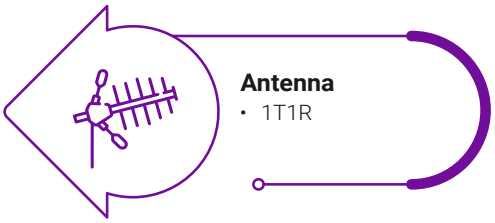


DL Modulations
- QPSK

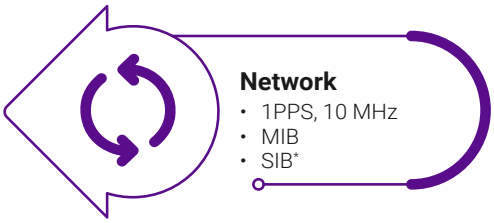


Duplexing
- TDD
- FDD

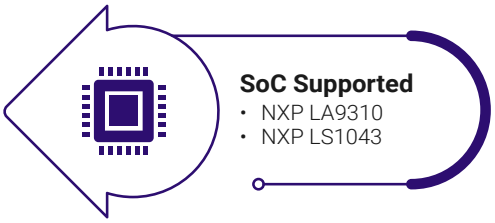
3GPP Release
- Rel-15 Compliant
- Rel-16 Road mapped



Antenna
- 1T1R



Network
- 1PPS, 10 MHz
- MIB
- SIB*



SoC Supported
- NXP LA9310
- NXP LS1043

*SIB feature will require a host with an external memory

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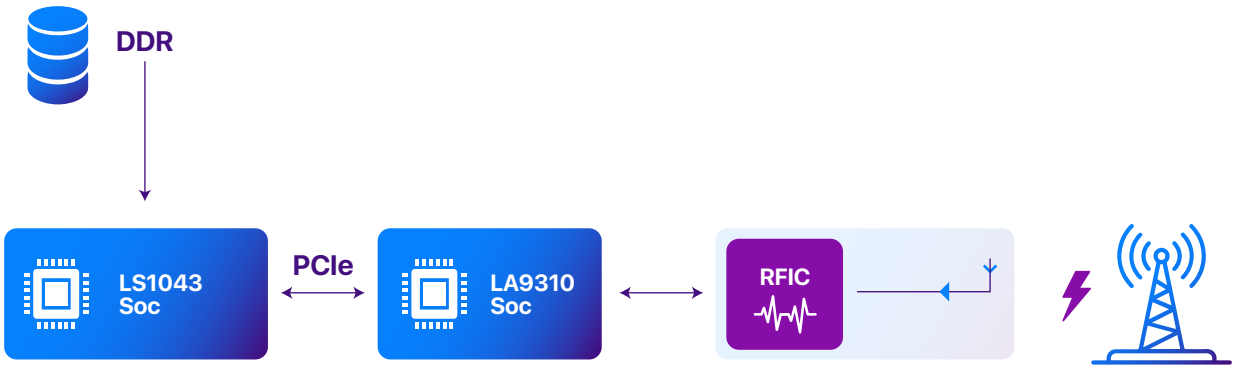
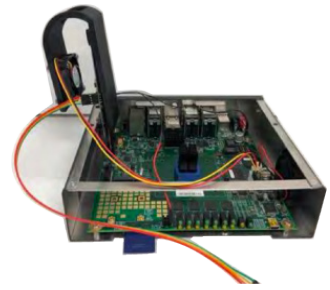
The Arttha5G NLM Reference Architecture

The NLM solution from PureSoftware is based on NXP LA9310 Soc (for DSP processing) and NXP LS1043A for host connectivity over PCIe interface.

Reference Design





LA9310RDB with LS1043A

LA9310 Card

About Arttha5G

Arttha5G is an O-RAN compliant 5G platform that provides the software and architecture to power connected aspirations across the world by enabling companies to roll out 5G solutions with time to market advantage, optimized operational footprint, greater load capacity to support ever-increasing speeds at low latency.

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