

Nokia Siemens Networks Flexi Multiradio 10 Base Station gearing up with ten times more capacity, supports LTE-Advanced

Nokia Siemens
Networks



Nokia Siemens Networks Flexi Multiradio 10 Base Station delivers unprecedented capacity to meet mobile broadband traffic growth.

Building on the market leading Flexi Multiradio Base Station, the new Flexi Multiradio 10 Base Station is the world's smallest high-capacity, software-defined, multi-technology base station. Just one System Module can support GSM/EDGE, WCDMA/HSPA+, LTE (FDD/TDD)/LTE-Advanced.

The Flexi Multiradio 10 Base Station can provide tremendous cost savings. Combining cutting edge performance hardware for high bandwidth LTE-Advanced sites with the world's most compact macro base station maximizes return on investment. Capacity and technology can evolve flexibly to very high capacity by chaining modules and also scale well in the smallest macro configurations. This enables communications service providers (CSPs) to add capacity easily to keep pace with growing mobile broadband traffic and make investments at the right time.

One module for GSM/EDGE, WCDMA/HSPA+, LTE (FDD/TDD)/LTE-Advanced

The Nokia Siemens Networks Flexi Multiradio 10 Base Station is the world's most compact macro base station. It combines a Flexi Multiradio System Module for baseband processing with either a multi-standard three-sector Flexi RF Module Triple or Remote Radio Heads (RRH).

The Flexi Multiradio 10 Base Station supports GSM, WCDMA, LTE (TDD & FDD)/LTE-Advanced using a single System Module. The module's multi-technology and multi-band capability makes it easy to evolve to future radio technologies and frequency bands. The base station also includes both indoor and outdoor variants.

Maintenance costs are reduced by eliminating many of the complex, application-specific base station products and cabinets.

The Flexi RF Module Triple offers three sectors in a 25 liter, IP65 certified outdoor unit with a total of 180 W at the antenna connector. The multi-carrier and multi-standard power amplifier for GSM, WCDMA and LTE allows CSPs to build base station sites for the lowest possible cost and provides an effortless way to expand capacity. The base station is complemented by a single-sector Multiple Input Multiple Output (MIMO)-capable Flexi RRH, complementing the three-sector Flexi RF Module Triple that provides the most compact MIMO site solution. This ensures the right solution is always available to provide a cost-and performance-optimized installation.

Unprecedented capacity

Flexi Multiradio 10 Base Station offers more than 10 Gbps capacity in its advanced configuration - ten times higher than previous generations. Adding new capacity is simple using software upgrades, sub-modules or module chaining. CSPs can start small and scale up with market demand.

Leaner and greener

Flexi Multiradio 10 Base Station uses only about 1 kW to serve all current 3GPP technologies simultaneously. The efficient combination of hardware and software results in a 30% reduction in power consumption, slashing base station operating costs. The equipment's small size and modularity also minimizes site investments and the carbon footprint resulting from logistics, transport and construction works.

An eye on the future

The Flexi Multiradio 10 Base Station delivers the highest mobile broadband performance for the lowest operational cost. CSPs can protect their investments by expanding their existing Flexi Base Stations with new Flexi Multiradio 10 Base Station units. All Flexi Base Station variants and generations can be interconnected to provide backwards compatibility and even higher combined capacity. All outdoor modules are IP65 compliant, while indoor modules are even lighter, and more compact to fit into any 19" cabinet.



Flexi Multiradio 10 Base Station

The Flexi Multiradio System Module is LTE-Advanced ready, so today's WCDMA and LTE networks can be smoothly upgraded to future evolution of 3GPP with a software upgrade.

Built-in high-speed Ethernet interfaces support 3GPP-compliant Network Domain Security with an integrated wire-speed IPSec engine.

Customized services, more value

Tailored services, an exhaustive resource bank and efficient processes all combine to help CSPs perform better. We use our experience of successful deployments in multi-vendor environments, greenfield and modernization projects to improve the experience of our customers and their subscribers.

In line with all Nokia Siemens Networks network elements, Flexi Multiradio 10 Base Station is managed by the multi-technology, multi-vendor NetAct OSS platform which enables CSPs to manage all network operations from a single point.

The Nokia Siemens Networks SON Suite supports GSM, WCDMA and LTE, as well as multi-vendor features using OSS support and open 3GPP interfaces. It boosts efficiency and improves the speed and quality of mobile communications. With Automated Neighbor Relations and SON Plug & Play accelerated rollout, Nokia Siemens Networks can automate and speed up integration of the base station with the network.

Technical Data

Installation options:	Indoor or outdoor installation; floor, wall, pole, mast-mountable; supports distributed and feederless sites.
Frequency bands:	Suitable for all 3GPP frequency bands
RF power amplifier technology:	Multistandard and Multi-carrier power amplifier (MCPA)
Three-sector Flexi RF Module Triple output power:	3 x 60 W at RF Module antenna connectors
Flexi RRH output power:	2 x 40 W at RRH antenna connectors
Maximum capacity:	<ul style="list-style-type: none">GSM capacity of 216 transceiversWCDMA about 13.6 Gbps downlink, 3.8 Gbps uplink and 18000 channel elements with chaining configurationLTE 12 Gbps downlink and 4 Gbps uplink with chaining configuration
Interfaces:	<ul style="list-style-type: none">OBSAI and CPRITransport Interface: Inbuilt high-speed Ethernet
Height x width x depth:	Outdoor variant: 133 x 447 x 560 mm. No need for cabinet Indoor variant: 88.1 x 447 x 300 mm. Fits any 19" rack
Volume net:	Three-sector Flexi RF Module Triple: 25 liters Flexi RRH: 25 liters Flexi Multiradio System Module: Outdoor variant: 25 liters Indoor variant: 12 liters
Weight:	Three-sector Flexi RF Module Triple: 25 kg Flexi RRH: 17 kg Flexi Multiradio System Module: Outdoor variant: 10.1 to 19.7 kg Indoor variant: 6.3 to 9.7 kg
Power supply:	40.5-57 VDC 0-276 VAC & 184 – 276 VAC with power module
Typical power consumption:	About 1 kW for GSM, WCDMA and LTE combined
Operational environment:	Outdoor variant: IP65, -35 to +55°C Indoor variant: IP20, -5 to + 55°C