

Nokia Solutions and Networks Flexi Lite Base Station

All-in-one base station to enhance capacity and coverage



The Nokia Solutions and Networks Flexi Lite Base Station is a small all-in-one base station for WCDMA capacity and coverage enhancements. The product is based on the award-winning Flexi Multiradio Base Station platform inheriting several years of experience and a long track record of extreme field operations.

The main application of this extremely compact Base Station (~10L) is to help deliver an improved mobile broadband experience by enhancing coverage and capacity both outdoors and indoors. Flexi Lite Base Station can be used to add capacity cells in urban and dense urban areas if new frequency carriers for macro cells are not available. It can be also deployed to cover traffic hotspots or to fill network coverage holes, as well as being suitable for improving coverage inside buildings, for example airports and railway stations. Flexi Lite BTS can be used for both micro cell and pico cell applications.

Flexi Lite Base Station is equipped with built-in IP transport, which enables a cost-effective site solution and high-speed connections.

The benefits of small cell deployments

Deploying small cell base stations is an extremely cost-effective way to boost network capacity and coverage in residential and commercial areas as well as in metropolitan traffic hotspots where most data usage occurs. They provide an efficient way to meet market growth while simultaneously offloading voice and data traffic from the mobile CSP's macro network. Flexi

Multiradio BTS very compact 6-sector solution and micro cell application has been already successfully used for capacity and coverage improvement. Also Flexi Multiradio Antenna System (Active Antenna) is used to boost network capacity and coverage.

Major capital and operational cost saving opportunities

The Flexi Lite Base Station capacity, output power and site cost are all optimized for micro and pico cells. The base station's small size and light weight reduces site and infrastructure CAPEX significantly for communications service providers (CSP).

The Flexi Lite Base Station offers CSPs new site deployment possibilities thanks to its compact size and light weight which make it extremely easy and fast to deploy. Silent active cooling enables a minimum installation clearance, so Flexi Lite BTS can be installed in locations not much larger than BTS itself (~10L) e.g. in already crowded sites, in utility rooms, inside cabinets etc. This small BTS can be also installed back to back for compact multiband and multiradio sites. This brings further savings in the form of lower and easier site acquisition and rental costs, allowing CSPs to extend coverage to areas that were previously inaccessible. One person can deploy Flexi Lite Base Station, further reducing the installation cost.

The base station also features low power consumption while delivering high capacity to reduce running costs even more.

Visually discrete

Flexi Lite Base Station can be camouflaged easily to blend with the surrounding environment making it virtually unnoticeable as a BTS. In addition, this small and light Base Station is well suited to the needs of installations in more visible locations such as exterior walls, billboards, lamp-posts, bus stops and more. Flexi Lite Base Station is easy to conceal in dense urban environments where aesthetics are of prime importance making it virtually unnoticeable as a base station.

Creating more value with customized services

The Nokia Solutions and Networks Flexi Lite Base Station is supported by Nokia Solutions and Networks services. 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 swap projects to improve the experience of our customers and their subscribers.

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

The Nokia Solutions and 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 Solutions and Networks can automate and speed up the integration of the base station into the network.

TECHNICAL DATA

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| Installation options: | Wall, pole, lamp post, bill board, inside cabinet, inside utility room etc. (any position possible) with minimum clearance | |
| Frequency bands: | The product supports UMTS band I, other bands according to market and operator requirements - Up-link 1920-1980 MHz - Down-link 2110-2170 MHz | |
| Maximum capacity: | - HSPA up to 84Mbps | |
| Transport technology: | IP Transport with Ethernet (Fiber and Wireline) and xPON* | |
| Height x width x depth: | Outdoor/Indoor variant | 380 x 325 x 86 mm (without optional items and installation material) |
| Volume net: | Outdoor/Indoor variant | ~10L (standalone BTS) |
| Weight: | Outdoor/Indoor variant | ~ 11kg (standalone BTS) |
| Operating temperature range: | Outdoor/Indoor variant | -35 to +55°C |
| Power supply: | 100 - 240VAC, 50/60Hz | |
| Output power micro/pico: | From 250mW to 10W in 1db steps Configuration examples- 1-Omni @ 10W/250mW 1+1 @ 10W/250mW 2+2 @ 5W/250mW 1-Omni @ 10W+10W/250mW+250mW MIMO 2-Omni @ 5W+5W/250mW+250mW MIMO | |
| Sensitivity: | Single branch -107 to -121dBm, 1dB steps (supports also 2-way diversity) | |
| Ingress protection class: | Outdoor/Indoor variant | IP65 |

*based-on-market-needs

Product code C401-00805-DS-201309-1-EN

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