



A new way to build your 3G network – Nokia Flexi WCDMA Base Station

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While WCDMA is now clearly established as the key mobile radio technology for today and tomorrow, operators face many challenges in rolling out and expanding their networks. Site and operational cost pressures, difficulty in finding base station sites and the need to evolve smoothly to higher speeds and performance are obvious examples.

The Nokia Flexi WCDMA Base Station is small, light, versatile and offers macro base station capacity to meet all these challenges. With its minimum configuration featuring just two small BTS modules that can be hand-carried, the BTS delivers leading radio performance and provides a smooth evolution to future radio technologies. It also raises the environmental performance of base stations to a new level.

Build your network easily

Nokia Flexi WCDMA Base Station brings you a new kind of ease and efficiency to BTS site building. Small, light and constructed of a few modules that can be hand-carried and installed independently, this base station turns previously unfeasible locations into effective macro-capacity sites.

In indoor locations, small closets, elevator engine rooms or walls and floors are good examples. Outdoors, balconies, rooftops, walls and lighting and electricity poles are equally useful. An optional outdoor cabinet is also available for the base station.

In either environment, the units can be fitted inside an existing Nokia UltraSite EDGE Base Station for an effective co-siting solution, adding high capacity WCDMA/HSPA functionality to the network with minimal additional site costs.

Reduce site costs by up to 70% without compromising capacity

The excellent capacity/size ratio of the Nokia Flexi WCDMA Base Station translates into huge cost savings. This base station can save your site costs by up to 70%. As base station site costs make up the majority of the total radio network investment, the improvement in cost structure will be nothing short of revolutionary.



Save up to 60% in electricity bills

The Nokia Flexi WCDMA Base Station helps to radically reduce operational expenditure. Its power consumption is typically 60% lower than the consumption of traditional macro base stations.

You can use 'siteless' installations or have more potential sites to choose from to minimize site rental costs. Select the most economical options without compromising capacity and performance.

What's more, Nokia Flexi WCDMA Base Station features integrated transmission interfaces, which further reduce the need for site space. Couple it directly with Nokia's powerful microwave radios and suitable antennas for a complete site solution.

Minimize capital costs

You can save capital costs by eliminating the need for BTS shelters in outdoor installations and by being able to use new indoor locations. The civil works needed for base station installation will also be dramatically cut.

The Nokia Flexi WCDMA Base Station's low power consumption demands only a small, integrated power back-up module. Furthermore, indoor installations need typically no air-conditioning because natural convection will provide the necessary cooling.



Maximize efficiency with Nokia Services

Nokia Flexi WCDMA Base Station comes complete with a tailored package of Nokia services, from optimization and planning to full turnkey projects and managed services to achieve industry-leading coverage and capacity.

Enhance capacity and bandwidth the easy way

Nokia Flexi WCDMA Base Station supports High Speed Downlink Packet Access (HSDPA) technology to boost downlink data speeds and capacity. Furthermore, a remote software activation will enable High Speed Uplink Packet Access (HSUPA) functionality for enhanced uplink bandwidth and capacity.

Remote capacity allocation will expand base station capacity easily as the network gains more traffic, thanks to the base station's modular architecture.

Evolve smoothly to the multiradio future

Many subscribers will want to make the most of mobile data applications and will want to access the highest bandwidth. To cater for their demands, the Nokia Flexi WCDMA Base Station can be used as a platform to build WiMAX hotspots.

As another option, the Nokia Flexi WCDMA Base Station can provide data services at extremely low delivery costs using Nokia's unique Internet High Speed Packet Access (I-HSPA) architecture.

These benefits stem from Nokia Flexi WCDMA Base Station's open internal interfaces in accordance with the Open Base Station Architecture Initiative (OBSAI) specification and truly modular BTS structure. These support new radio technologies and frequencies with a single hardware platform, bringing simplicity to logistics and network building.

Support environmental values and gain customer loyalty

Nokia Flexi WCDMA Base Station's exceptionally low electricity consumption and small size that uses less manufacturing and packaging material make it compliant with European Union environmental directives.

The BTS's environmental credentials are further enhanced by lower transportation needs, complementing the environmental benefits of Nokia's smart logistics solutions.

Nokia Flexi WCDMA BTS – fits practically anywhere

Nokia Flexi WCDMA Base Station is a complete solution for building coverage and capacity to satisfy mobile data and voice subscribers today and in the future. Build a 3G network now in a completely new way with the Nokia Flexi WCDMA Base Station. It fits practically anywhere, helping to minimize BTS site costs and maximize network quality.



| Technical characteristics | |
|---|---|
| Installation options | Indoor and Outdoor, e.g inside Nokia UltraSite™ EDGE BTS or 19" rack, stacked on floor or shelf, wall, pole, mast and distributed sites |
| Frequency bands | WCDMA 2100, 1700/2100 MHz ¹⁾ |
| Output power | Typical 45 W per carrier ²⁾ |
| Maximum capacity | 12 carriers: guaranteed 20 W per carrier 6 carriers: guaranteed 40 W per carrier |
| Maximum number of sectors | 6 sectors, 2 carriers per sector guaranteed 20 W per carrier |
| BTS dimensions BTS height BTS width BTS depth | 2+2+2 @ 20 W stack installation 339 mm (9U) 448 mm (19" rack installation) 574 mm outdoor (410 mm without outdoor covers) |
| Module dimensions* Module height Module width Module depth | 113 mm (3U) 448 mm (19" rack installation) 574 mm outdoor (410 mm without outdoor covers) |
| Maximum weight 2+2+2, min. 20 W | 55 kg for 2+2+2 @ 20 W |
| Power consumption | 1+1+1 @ 20 W, typical 550 W DC 2+2+2 @ 20 W, typical 800 W DC |
| Nominal DC voltage | 40.5 – 57 VDC |
| Nominal AC voltage | Optional 184 – 276 VAC power module with battery back-up, see module size* |
| Operating temperature | -33 – +55 °C |
| Ingress protection class | IP55 for BTS electronics |

¹⁾ Also other bands based on market need

²⁾ Power at BTS antenna connectors





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