

# Small Cell Solutions

## Versatile small cells for homes and offices FP813 family

### SMALL FOOTPRINT

The FP813 has an elegant and compact design to unobtrusively fit in to the modern home. It is also highly energy efficient, consuming less than 4W of power, way below the 2009 EU target of 11W.

### BEST PERFORMANCE

Despite its diminutive proportions, the FP813 family is at the leading edge of small cell performance. Each unit can handle up to 8 calls and download speeds up to 14.4 Mbps.

### HOME & BUSINESS

Can be deployed in homes and in small offices.

Easy to wall mount or simply free-standing on any flat surface

### FIELD PROVEN

This small cell platform has been proven in multiple commercial deployments worldwide and includes unique real-time interference mitigation technology.



- Designed for Indoor use in homes and offices
- Handles up to 8 simultaneous calls
- Supports HSDPA 14.4 Mbps downlink
- Supports HSUPA 5.7Mbps uplink.
- Transmit power up to 13dbm (20mW)
- Effective cell radius ~50m, depending on actual deployment environment
- Support for WCDMA Bands I, II/V and IV
- Remote device management: TR-069

The FP813 small cell family from NEC is built on many years of small cell development, providing a solution that supports zero touch installation, is able to autonomously adapt to its RF environment to provide best coverage and incorporates an adaptive and distributed radio management function obtaining optimal local coverage. This helps operators to reduce effort and expenditure on network rollout and optimisation.

The FP813 provides significant performance gains compared to other similar products in the market. It can support the full HSDPA and HSUPA data rates whilst supporting up to 8 calls.

NEC's small cell provides a 'zero touch' plug and play function that enables end users to install it in their homes or offices quickly and easily. After installation, the cell automatically sets up connections to the core network over the subscriber's broadband connection and it interacts with 3G handsets without any modification. The end users enjoy improved 3G voice quality, data speeds, capacity and bundled services.

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## ZERO TOUCH

No cell-planning or operator installation – this is a self-optimising, plug & play device.

## MOBILITY

NEC's unique Grid-SON technology, creates a self-organising coverage grid of small cells with seamless Handovers enabled between them

## NETWORK MANAGEMENT

Intelligent, Proactive Service Monitoring & Service Assurance, with detection of service effecting events to trigger service alarms

For more information on any of our products or services please visit us on the Web at:  
[www.nec.com/femtocell](http://www.nec.com/femtocell)  
[www.nec.com/smallcell](http://www.nec.com/smallcell)

## Key Product Features

Feature	Specification
Number of calls	4 or 8 subject to soft key licensing
HSDPA	up to 14.4 Mbps, supports Categories 1 to 12
HSUPA	up to 5.7 Mbps, supports Categories 1 to 6
Maximum transmit power UMTS	+13 dBm
Ethernet	IEEE802.3 10/100 Base-T twisted pair Ethernet Physical connector: standard RJ45 socket 8 pins 1 port
DC Power	Single DC jack socket for external plug top power supply. Power rating 5V/1A
SIM	Push-push SIM socket on the underside of the case in a covered recess.
Reset Switch	Single push button switch
Indicators	Single dual color LED (Red/Green)
Dimensions	W 168mm x H 29mm x D 114mm
Weight	<300g (including external power supply adaptor)
Case	Tamper-proof
Mounting options	Free standing and wall mounting
Acoustic noise	None: passive cooled
Operating temperature	0°C to 40°C
Energy consumption	<4W
Frequency Bands	UMTS Band I (UL:1920-1980 MHz & DL:2110-2170 MHz) with GSM 900/1800 monitoring UMTS Band II (UL:1850-1910 MHz & DL:1930-1990 MHz) & Band V (UL:824-849MHz & DL:869-894MHz) with GSM 850/1900 monitoring UMTS Band IV (UL:1710-1755 MHz & DL:2110-2155 MHz) with GSM 850/1900 monitoring
Interference management	Fully automatic: real-time cognitive radio
Network interface	3GPP GAN, 3GPP Iuh and IMS
Broadband security	IPSec
Device security & authentication	Certificate or (U)SIM
Remote device management	Broadband Forum TR-069
MTTF	100,000 hrs
Product Life	> 5 years
Regulatory Compliance	Safety: EN 60950, CB certification (IEC 60950) • EMI Directive 1999/5/EC on R&TTE: - EN 50385 - EN 301 489-1 and 301 489-23 - EN 301 908-1 and 301 908-3 • FCC Part 15, Class A • FCC Part 24 (UMTS Band II) • FCC Part 27 (UMTS Band IV) • FCC Part 22 (Band V) • Materials: Directive 2002/95/EC on RoHS • General: CE and NRTL marking

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**NEC**