

GSM LiteCell

PRODUCT SHEET



GSM LiteCell

The world's most affordable, lowest power consumption, and easiest to deploy GSM-EDGE Micro-BTS

NuRAN Wireless introduces the GSM LiteCell, the world's most affordable, lowest power consumption, and easiest to deploy GSM-EDGE Micro-BTS. Specifically designed to reach the next billion mobile subscribers, the GSM LiteCell opens a whole new world of possibilities, for low density, low income, and remote populations.

REACHING FARTHER

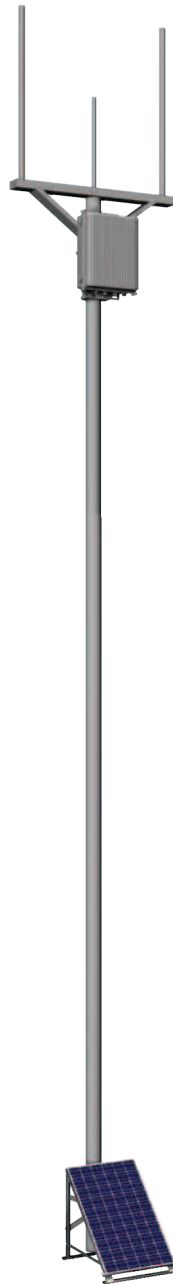
So far, remote and sparsely populated locations could not benefit from mobile coverage, as projected revenues from the smaller subscriber bases could not justify the deployment and operation costs inherent to traditional equipment. This reality now belongs to the past, as the GSM LiteCell makes it possible to build sites at very low cost, and where only minimal or no infrastructure at all exists. Operators now have the possibility to extend their network coverage and reach these subscribers in a viable way.

SIMPLIFIED DEPLOYMENTS

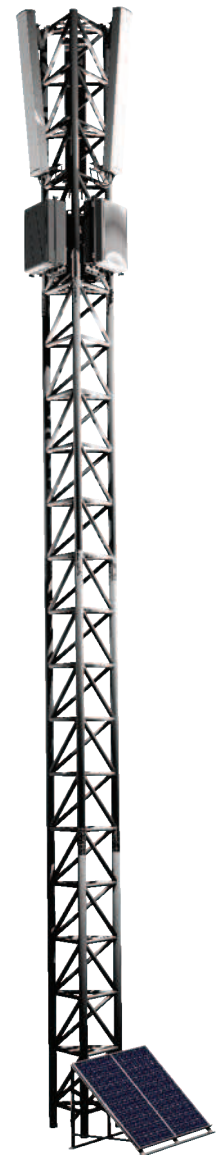
The GSM LiteCell all-IP interface makes it easy to connect to any type of backhaul, including DSL, microwave, and satellite. The system may benefit from an integrated BSC and advanced compression features to reduce the amount of traffic exchanged on the backhaul and be more tolerant to latency. The unit is so energy-efficient that inexpensive solar panels are sufficient to operate a complete site. The compact size and simplicity of the LiteCell makes it possible for single, untrained personnel to perform site installation.

APPLICATIONS

- Rural coverage
- Roadside coverage
- Low density villages
- Remote sites
- Third-world / developing countries
- Private networks



2-TRX omni site



2/2/2 sectorized site

SPECIFICATIONS

Analog

- Operating frequencies:

Band	Reception	Transmission
850	824–850 MHz	869–895 MHz
900	880–915 MHz	925–960 MHz
1800	1710–1785 MHz	1805–1880 MHz
1900	1850–1910 MHz	1930–1990 MHz

- Maximum output power:
 - 10 Watts
- Output level setting:
 - 1 dB steps
- Clock accuracy:
 - < 0.05 ppm
- Sensitivity:
 - -109 dBm

Channel support

- Traffic:
 - TCH/F + FACCH/F + SACCH/TF
 - TCH/H(0,1) + FACCH/H(0,1) + SACCH/H(0,1)
- Beacon:
 - FCCH + SCH + BCCH + CCCH
 - FCCH + SCH + BCCH + CCCH + SDCCH/4(0..3) + SACCH/C4(0..3)
 - SDCCH/8 (0..7) + SACCH/C8(0..7)
- Packet switching:
 - CS-1 to CS-4 encoding
 - MCS-1 to MCS-9 encoding
- Speech format:
 - AMR, HR, FR, EFR
- Encryption:
 - A5/1, A5/2, & A5/3

Logical interfaces

- Abis over IP
- A over IP & Gb
- SIP/RTP & Gi (internet)

Physical interfaces

- Rx Antenna:
 - N-type
- Tx antenna:
 - N-Type
- GPS antenna:
 - SMA
- Traffic and control:
 - 10/100 Mbps Ethernet RJ45

Electrical

- Power consumption:
 - 52 Watts (2 TRX)
- Input voltage:
 - 24 VDC

Mechanical

- Dimensions:
 - 220 mm × 280 mm × 93 mm
- Weight:
 - < 5 kg
- Mounting options:
 - Pole, wall, tower

Environmental

- Operating temperature:
 - -40 °C to 55 °C
- Storage temperature:
 - -40 °C to 70 °C
- Rating:
 - IP67
- Cooling:
 - Passive

Compliance

- 3GPP TS 04.04
- 3GPP TS 05.02 — 05.05
- 3GPP TS 05.08
- 3GPP TS 05.10

NuRAN Wireless products are constantly being improved; therefore, NuRAN Wireless reserves itself the right to modify the information herein at any time and without notice.

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