



# GSM LITECELL 1.5

PRODUCT SHEET



**BRIDGING THE DIGITAL DIVIDE ONE CONNECTION AT A TIME**

# GSM LITECELL 1.5



**THE WORLD'S MOST AFFORDABLE, LOWEST POWER CONSUMPTION,  
AND EASIEST TO DEPLOY GSM BASESTATION.**

The GSM LiteCell 1.5 is uncontestedly the world's most affordable, lowest power consumption, and easiest to deploy GSM basestation. Specifically designed to reach the next billion mobile subscribers, the GSM LiteCell opens a whole new world of possibilities for connecting 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 is a hand-carried, tower-mounted basestation. It does not require any machinery to install, nor any kind of shelter to protect it. Antennas connect directly to the unit; no need for costly and cumbersome external RF components. Its all-IP interface makes the GSM LiteCell easy to connect to any IP-based terrestrial or satellite backhaul. The basestation's ultra-low power consumption minimizes CAPEX associated to solar panels and batteries, or OPEX in the case of diesel-powered sites.

## OPTIMIZED FOR SATELLITE

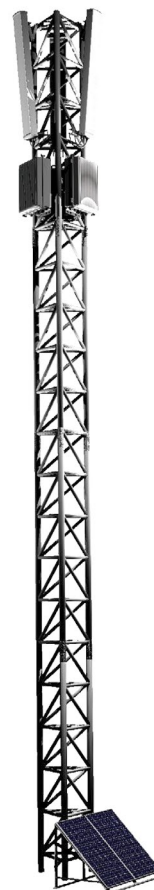
When combined with NuRAN's NuBSC and LiteSat, the LiteCell achieves industry-leading bandwidth optimization, thereby keeping the OPEX of satellite backhauled sites to an absolute minimum.

## PROVEN RELIABILITY

The LiteCell 1.5 is NuRAN's fourth generation of GSM basestation. It builds on a track record of high reliability, with thousands of units deployed in all parts of the world, enduring the harshest conditions.

## APPLICATIONS

- RURAL COVERAGE
- ROADSIDE COVERAGE
- LOW DENSITY VILLAGES
- REMOTE SITES
- DEVELOPING COUNTRIES
- PRIVATE NETWORKS



2/2/2 SECTORIZED SITE



2-TRX OMNI 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 |

- Maximum output power:
  - **2X10WATTS**
- Output level setting:
  - **1 DB STEPS**
- Clock accuracy:
  - **< 0.05 PPM**
- Sensitivity:
  - **-114 DBM, 2% BER (WITH DIVERSITY)**
- Maximum cell radius:
  - **2 KM**

### Services

- Speech format:
  - **AMR, HR, FR, EFR**
- Data services:
  - **GPRS CS-1 TO CS-4, MULTISLOT**
  - **EGPRS MCS-1 TO MCS-9, MULTISLOT**
- Encryption:
  - **A5/0, A5/1, A5/2, & A5/3**
- Maximum capacity:

| CONFIG.            | CURR.CALLS | ERLANG (2% GOS) |
|--------------------|------------|-----------------|
| 02/S2 (1 LITECELL) | 30         | 21,9            |
| S22 (2 LITECELLS)  | 60         | 43,8            |
| S222 (3 LITECELLS) | 90         | 65,7            |

### Logical interface

- **ABIS OVER IP**
- **GB**

### Physical interfaces

- Antennae:
  - **N-TYPE**
- GPS antenna:
  - **SMA**
- Traffic and control:
  - **ETHERNET RJ45**

### Electrical

- Power consumption (24-hour average):
  - **46 WATTS (2X5W)**
  - **56 WATTS (2X10W)**
- Input voltage:
  - **24 VDC NOMINAL**
  - **19-30 VDC SUPPORTED**

### Mechanical

- Dimensions:
  - **344 MM × 230 MM × 132 MM**
- Weight:
  - **9.5 KG**
- Mounting options:
  - **POLE, WALL, TOWER**

### Environmental

- Operating temperature:
  - **-20 °C TO +55 °C, PLUS SOLAR LOADING**
- Storage temperature:
  - **-40 °C TO +70 °C**
- Rating:
  - **IP66**
- Cooling:
  - **PASSIVE**



2150 CYRILLE-DUQUET, QUEBEC CITY (QUEBEC) G1N 2G3 CANADA  
[WWW.NURANWIRELESS.COM](http://WWW.NURANWIRELESS.COM)

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