



RBS 2302

Radio Base Station

RBS 2302 – The Complete Micro Base Station

RBS 2302 is the market leading GSM Micro Base Station for both indoor and outdoor microcell applications.

RBS 2302 allows for easy site acquisition, cost-effective implementation/- operation and fast revenue generation.

Satisfies subscribers and increases revenues

Introducing RBS 2302 into the network increases capacity and improves coverage and quality in densely populated areas. It can be deployed practically anywhere and is equally ideal for permanent microcells, temporary hot spots and dedicated in-building solutions as it is for complete microcell layer deployment. This means not only a possibility to serve more satisfied subscribers, but also a possibility for improved Minutes of Use (MoU) per subscriber as outcomes.

Easy site search and acquisition

RBS 2302's small size, discrete design, totally silent operation and well proven siting flexibility makes site acquisition easy and cost-effective.

RBS 2302 is a small yet complete base station. It includes transceivers, switching functionality, transmission, and battery backup as well as the option of having integrated antennas within the base station. It is landlord friendly with an unobtrusive design and is silent in operation (no noisy cooling fans). It provides practically endless site opportunities as it can be placed both indoors and outdoors – both for capacity and coverage purposes – with minimal civil works required, thereby reducing site cost.

Easy installation and commissioning

RBS 2302 makes site implementation easy and cost-effective thanks to lightweight compact design and the flexibility of the site solutions available for the product.

To ensure maximum efficiency and highest possible quality at installation, all RBS 2302s are SW loaded and pre-tested before delivery. Thanks to its lightweight design and high level of integration, installation and commissioning takes one person less than an hour. It can be mounted on a mast/pole as easily as it can be placed on wall. To reduce transmission cost and/or to provide flexibility, several transmission options are available. A High-bit-rate Digital Subscriber Line (HDSL) modem can be integrated in the RBS 2302 for wire line access or the long haul functionality can be used. Furthermore, the MINI-LINK™ C/-E Micro are optimized for use together with RBS 2302 for rapid microwave transmission connection to the network.

Easy operation and maintenance

RBS 2302 makes operation easy and cost-effective thanks to market leading reliability, user friendliness and low power consumption.

RBS 2302 is designed for indoor and outdoor operation worldwide. It is convection cooled with no moving parts, is energy efficient and has low need for preventive maintenance. It contains the most advanced software for operation and maintenance available on the base station market today, together with a built-in database where information about installed hardware is stored. A user friendly Man Machine Interface (MMI) is provided. To minimize test-time when RBS 2302 is mounted out of reach, permanent cabling with easy access for the Operation and Maintenance Terminal (OMT) is available. For short-term power failures an internal battery is provided. An optional external battery backup (PBC) with the same aesthetically pleasant design as RBS 2302, providing extended backup times, is also available.

Easy expansion

RBS 2302 makes capacity expansion easy and cost-effective thanks to instant and flexible scalability.

Expansion to four or six transceivers per microcell with a single Broadcast Control Channel (BCCH) is made simple by adding extra cabinets, which means that more than four times the original transceiver capacity can be achieved.

This is particularly useful in tariff-competitive markets as the site cost can be spread over more subscribers with the cost per subscriber dramatically reduced. Moreover, with the built-in multi-drop functionality, up to five RBS 2302s can be connected to a single 2 Mbit/s transmission line for cost efficient operation. RBS 2302 can also be easily used in mixed configurations with Ericsson's forthcoming EDGE Micro Base Station RBS 2308.

Key benefits

RBS 2302 increases access to the network for subscribers and creates additional revenues for the operator by:

- Increasing capacity
- Improving coverage
- Improving quality

RBS 2302 reduces cost and helps create shorter time to revenues for the operator by providing:

- Easy site search & acquisition
- Easy installation & commissioning
- Easy operation & maintenance
- Easy capacity expansion

RBS 2302 is the core part of several flexible site applications from Ericsson:

- Maxite™ for wide area coverage with macrocell output
- SunSite for remote area coverage with solar power
- Street Furniture for urban high capacity with 12 transceivers street cabinet

Key features

- A small, lightweight but complete Micro Base Station
- GSM 900/1800/1900 operation
- Two transceivers per cabinet
- Scalable up to six transceivers per microcell
- Market leading reliability
- No moving parts with totally silent operation
- Low need for preventive maintenance
- Supports up to 8 external alarms
- Low power consumption
- Six different colors of front sunshields
- Indoor and outdoor wall and pole/mast mounting options
- Extended temperature range with fan unit option
- Integrated or external antennas with multicasting box option
- Integrated Channel Service Unit (CSU), Long Haul, and Multi drop with bypass functionality.
- HDSL-modem and MINI-LINK™ C/-E Micro options
- AC and DC operation options
- Integrated and external battery backup options
- Permanent OMT cabling option
- Synthesized and base band frequency hopping
- RX diversity and support for SW Power Boost
- Support for Half Rate, Full Rate, Enhanced Full Rate, Adaptive Multi Rate, 14.4 kbit/s, HSCSD, and GPRS

Technical specifications for RBS 2302

Frequency band:	
TX:	935–960 / 1805–1880 / 1930–1990 MHz
RX:	890–915 / 1710–1785 / 1850–1910 MHz
Number of transceivers (per cabinet):	2
RF power into antenna feeders (nominal *):	2.0 W (33 dBm)
Receiver sensitivity (nominal *):	-107 dBm (GSM 900) -106 dBm (GSM 1800 / 1900)
Transmission interface:	1.5 Mbit/s (T1 100 Ω) 2 Mbit/s (E1 75/120 Ω)
Transmission features:	Integrated CSU (T1) Integrated Long Haul (E1/T1 120/100 Ω) Integrated Multi drop with bypass functionality (E1/T1) HDSL modem option (E1 120 Ω) MINI-LINK™ C/-E Micro options (E1 120 Ω)
Dimensions (inclusive mounting bracket):	
With external antennas:	535 x 408 x 222 mm (21 x 16 ¹ / ₂₀ x 8 ⁷ / ₁₀ in.)
With multicasting box:	535 x 408 x 222 mm (21 x 16 ¹ / ₂₀ x 8 ⁷ / ₁₀ in.)
With integrated omni antennas:	607 x 408 x 222 mm (23 ⁹ / ₁₀ x 16 ¹ / ₂₀ x 8 ⁷ / ₁₀ in.)
With integrated sector antennas:	535 x 408 x 272 mm (21 x 16 ¹ / ₂₀ x 10 ⁷ / ₁₀ in.)
Volume (inclusive mounting bracket):	< 50 liters
Weight (inclusive mounting bracket):	
With integrated antennas:	< 31 kg (68.3 lbs.)
Without integrated antennas:	< 29 kg (63.9 lbs.)
Power supply:	100–127/200–250V AC, 50/60 Hz 24V (±4) DC
Power consumption (nominal *):	< 150 W
Battery backup:	
With internal battery backup:	3 – 11 minutes
With external battery backup (PBC):	Up to 4 hours
Operating temperature:	
With AC supply:	-33°C – +45°C (-27°F – +113°F)
With fan unit option:	-33°C – +55°C (-27°F – +131°F)
With DC supply:	-15°C – +45°C (-5°F – +113°F)

Notes: * Typical value is better