

GSM RBS 2308

The GSM EDGE Micro Base Station



Satisfies subscribers and increases revenues

Introducing RBS 2308 into the network increases capacity and improves coverage and quality in densely populated areas. It can be deployed practically anywhere and is ideal for permanent micro cells, temporary hot spots and dedicated in-building solutions as it is for complete micro cell 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 outcome.

Easy site search and acquisition

RBS 2308's small size, discrete design, totally silent operation and well-proven siting flexibility makes site acquisition easy and cost-effective. RBS 2308 is a small yet complete base station. It includes transceivers, switching functionality and transmission. External optional battery back up is possible 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. 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 2308 makes site implementation easy and cost effective thanks to lightweight compact design and the flexibility of the site solutions available for the product.

Thanks to its lightweight design and high level of integration, it takes one person less than an hour for installation and commissioning. It can be mounted on a mast/pole as easily as it can be placed on a wall. To reduce transmission cost and/or to provide flexibility, several transmission options are available. A radio link, MINI-LINK™ E Micro is optimized for use together with RBS 2308 for rapid microwave transmission connection to the network. RBS 2308 consists of several replaceable units and can be installed unit by unit to simplify the installation, see figure 1.

Easy operation and maintenance

RBS 2308 makes operation easy and cost-effective thanks to market leading reliability, user friendliness and low power consumption. RBS 2308 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 2308 is mounted out of reach, permanent cabling with easy access for the Operation and Maintenance Terminal (OMT) is available.

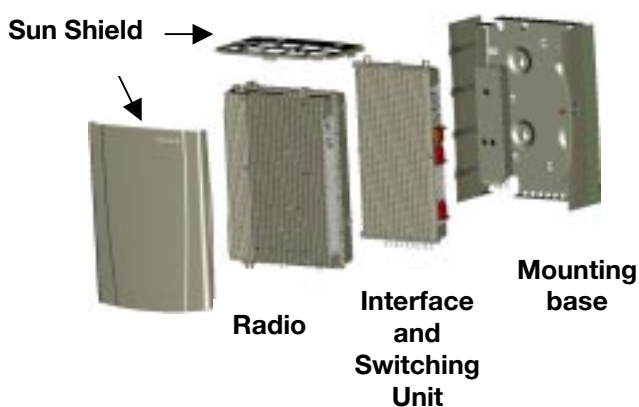


Figure 1. Replaceable units in RBS 2308

Two different optional external battery backup versions is available; the Power and Battery Cabinet (EBB-06) with approximately one hour battery back-up and the External Battery Back-up (EBB-01) supporting up to ten minutes battery back-up.

Easy expansion

RBS 2308 makes capacity expansion easy and cost effective thanks to instant and flexible scalability. Expansion to eight or twelve transceivers per micro site with a single Broadcast Control Channel (BCCH) is easily done by adding expansion units, which means that more than four times the original capacity can be achieved. An expansion unit only consists of mounting base, radio and sun shield, i.e. no Interface and Switching Unit is necessary and that makes the installation easier. With the built-in multi-drop functionality, up to three RBS 2308s can be connected to a single 2 Mbit/s transmission line for cost efficient operation. RBS 2308 supports 1,2 and 3 cells configuration.

Key benefits

- Small, lightweight but complete Micro Base Station
- GSM 800/E-GSM 900/1800/1900 operation
- Four transceivers per cabinet
- Scalable up to 12 transceivers per micro cell
- No moving parts with totally silent operation
- Supports up to 4 external alarms
- Low power consumption
- Indoor and outdoor wall and pole/mast mounting options
- Integrated or external antennas with multicasting box option
- Integrated Channel Service Unit (CSU), Long Haul, and Multi drop with bypass functionality.
- 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, GPRS (CS1-4) and EDGE.

Technical specification for RBS 2308

Frequency band:	GSM 800, E-GSM 900, GSM 1800, GSM 1900
Sectors:	1-3
Number of transceivers (per cabinet):	4
Expansion possibility	Expansion to 8 and 12 transceivers possible
EDGE and GPRS	All transceivers supporting EDGE and GPRS
RF power into antenna feeders:	2.5 W/34 dBm (GSM 800/GSM 900) * and 2.2 W/33.5 dBm (GSM 1800/1900) *
Combining – Internal combining:	Reducing antennas from 4 to 2.
– Optional external combining:	Possible with multi casting box to 1 antenna (e.g. omni antenna or distributed antenna system e.g. for indoor coverage)
Receiver sensitivity:	-108 dBm (TU 50), excluding diversity gain
Transmission interface:	1.5 Mbit/s (T1 100) and 2 Mbit/s (E1 75/120)
Transmission features:	Integrated CSU (T1)
Integrated Long Haul	(E1/T1 120/100 ohm)
Integrated Multi drop with bypass functionality	(E1/T1)
MINI-LINK™ Micro options	(E1 120 ohm)
Dimensions inclusive mounting bracket with external antennas (w*h*d):	433 x 610 x 270 mm (17 x 24 x 10.6 in.)
Volume (inclusive mounting bracket):	< 50 liters
Weight Master (inclusive mounting bracket):	< 42 kg (90 lbs)
Weight Extension (inclusive mounting bracket):	< 32 kg (71 lbs)
Power supply:	100–127/200–250V AC, 50/60 Hz -48V DC
Power consumption (average without heating):	190 W
Optional optimized external battery backup (EBB-01):	>5 minutes
Optional long external battery backup (EBB-06):	> 1 hour
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)
Weatherproof:	IP 55, Enclosure type 3R class
Antennas	External / integrated sector / integrated omni

Notes: * Output power after internal combining, four transceivers connected to two antenna ports.