

BS-240 / BS-241

Base Transceiver Stations

BS-240/241 is the new future-proof evolution of Siemens' BTS hardware. Highlights are 24 TRX in 3 racks with 8 TRX each, significantly reduced volume per TRX, and a future-oriented platform for new GSM features. Siemens' latest base stations are already prepared for UMTS.

Product Profile

Increasing demands for higher capacity are met by BS-240/241 through reduced volume and an expanded number of 24 TRX in 3 racks with a modularity of 8 TRX per rack. This also makes the BS-240/241 a powerful dualband base station for GSM900 and GMS1800, as well as for GSM900 and GSM1900.

A full spectrum of combining equipment means high output power and a minimized number of antennas for all cell configurations. High receiver sensitivity is also guaranteed. A future SDMA option is planned. The modular architecture and the flexible internal structure with data rates of up to 2MBit/s enables the BS-240/241 to provide new GSM features such as EDGE. This platform ensures that network evolution is as smooth as possible. The use of latest technology reduces power consumption and improves reliability.



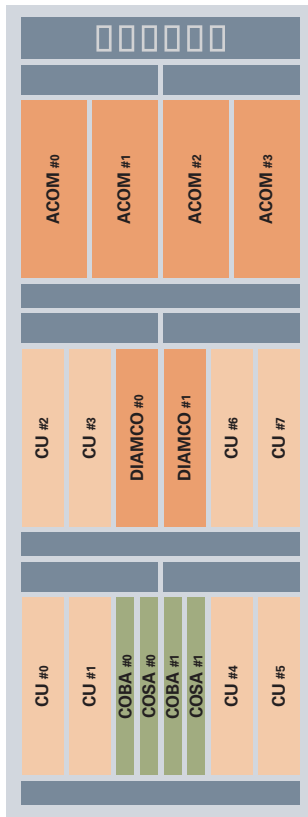


Fig.: Front view of BS-240



Fig.: BS-240

Technical Data BS-240

Indoor application	
Carriers per rack	8
Height x width x depth	1600 x 600 x 450 mm
Volume net	432 l
Weight	210 kg
Operation acc. to	ETSI 3.1E
Temperature range	- 5 °C to + 55 °C
Power supply	- 48 V DC; 230/400 V AC or 110/207 V AC
Max. power consumption	1.3 kW
Output power GSM900	60 W
Output power GSM1800	40 W
Output power GSM1900	40 W
Batterie backup	available

Customer Benefits

- Compatibility with existing SBS ensures easy integration into the already installed infrastructure
- Possible site configurations of up to 72 TRX/site prepares for increasing capacity requirements
- Highest reliability thanks to redundancy for all core modules
- Reduced investment costs due to integrated A_{bis} cross connect (8 PCM lines)
- Fast network rollout: approximately 50% fewer sites required due to high RX sensitivity and high output power
- BS-240/241 can consist of up to 8 racks: 1 base rack, 1 or 2 extension racks and up to 5 service racks
- Pre-installed commissioning reduces installation time to less than one hour
- No service interruption for rack extension or TRX exchange
- Smart antennas (beam switching) option increases capacity
- High site efficiency due to reduced volume of 54 liters/TRX and small footprint
- Architecture prepared for future GSM features (e.g. EDGE): functional, modular internal structure, highly flexible signal processing capacity, exchangeable RF frontend

Compatibility

The BS-240/241 are compatible with the existing Siemens BS-20/21/22 and BS-60/61 products. An easy expansion of installed networks with the new BS-240/241 is possible. Software features will run independently on all BTS types.

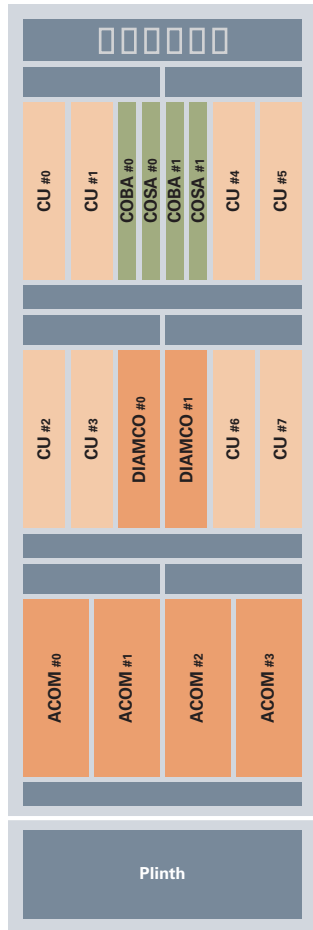


Fig.: Front view of BS-241



Fig.: BS-241

Technical Data BS-241

Outdoor application	
Carriers per rack	8
Height x width x depth	1750 (incl. plinth) x 700 x 650 mm
Volume net	705 l
Weight	265 kg
Operation acc. to	ETSI 4.1E
Temperature range (including solar radiation)	- 45 °C to + 50 °C
Integrated Power Supply	230/400 V AC or 110/207 V AC
Max. power consumption	1.85 kW
Output power GSM900	60 W
Output power GSM1800	40 W
Output power GSM1900	40 W
Battery backup	available
Microwave hardware	available

Feature Overview

- Frequency bands: GSM900/ GSM-RE/GSM1800/GSM1900
- Dual band (GSM900/1800 and GSM900/1900 in the same BTS rack)
- Site configurations up to 72 TRX/site, up to 24 TRX/cell and 36 cells/site
- High power amplifier (60W) and up to -116 dBm RX sensitivity
- Core redundancy and AC/DC redundancy
- Duplex combiner
- Filter combiner
- Filter combiner with High Power Duplexer (HPDU)
- Tower Mounted Amplifier (TMA) with intelligent reliability management
- Smart antennas (beam switching) option
- Integrated Abis cross connect (8 PCM24/30 lines)
- Integrated NTPM and μ -wave equipment, optional battery backup in a service rack
- High flexibility of site configurations thanks to service rack
- State-of-the-art technology, environmentally friendly, recyclable
- 48 external alarms, 8 site outputs per rack
- Rack extension without service interruption
- Hot plug-in ability of TRXs
- Short software upgrade time
- Improved MTBF

Technical Data RF BS-240/241

GSM900	Prim. Band	Ext. Band
Uplink range	890-915 MHz	880-890 MHz
Downlink range	935-960 MHz	925-935 MHz

GSM-RE	Frequency Band
Uplink range	876-901 MHz
Downlink range	921-946 MHz

GSM1800	Frequency Band
Uplink range	1710-1785 MHz
Downlink range	1805-1880 MHz

GSM1900	Frequency Band
Uplink range	1850-1910 MHz
Downlink range	1930-1990 MHz

Abbreviations

AC	Alternating Current	HPDU	High Power DUplexer
ACOM	Antenna COMbining	MTBF	Mean-Time Between Failures
BS	Base Station	NTPM	Network Termination Primary Multiplex
BTS	Base Transceiver Station	PCM	Pulse Code Modulation
COBA	COre BAsic module	RF	Radio Frequency
COSA	COre SATellite module	RX	Receiver
CU	Carrier Unit	SBS	Siemens Base Station System
DC	Direct Current	SDMA	Space Division Multiple Access
DIAMCO	Diversity Amplifier Multi COupler	TMA	Tower Mounted Amplifier
EDGE	Enhanced Data rates for GSM Evolution	TRX	Transceiver
ETSI	European Telecommunications Standard Institute	UMTS	Universal Mobile Telecommunications System
GSM	Global System for Mobile Communication		
GSM-RE	GSM Railway Extension		



Contact us!

Visit our website at
<http://www.siemens.com/ic/networks/ca>