



## Mobitex® BRU1 Base Station

# BRU1

## Portable campus base station

The Mobitex BRU1 is a low cost single channel, low power radio base station. It is scalable in terms of number of subscriptions and provides coverage for up to 500 mobile terminals within a limited area, such as office buildings, shops, workshops, theatres and sport arenas.

The BRU1 base station is designed for indoor operation with simple wall mounted installation and has an integrated Rx/Tx antenna.

The BRU1 makes it possible to install a base station in an extremely cost effective manner by reducing site costs. Site costs are kept at a minimum since the BRU1 can be mounted directly on the wall, has an integrated antenna and is powered by a standard AC/DC converter.

The BRU1 also offers two connectivity alternatives that let you choose the most cost effective connectivity solution - either X.25 protocol via a serial communication port or XOT (X.25 over TCP/IP) over an IP network via an built in Ethernet port.

Software can be installed remotely over the network or on site from a portable PC. Built-in functions support automatic supervision and remote configuration of the radio base station.



# Technical specification BRU19

## Physical dimensions

Height (excluding antenna)	10.2 inch / 260 mm
Width	14.2 inch / 360 mm
Depth	4.5 inch / 115 mm
Weight	9.9 lbs / 4.5 kg

## Power

Nominal rated voltage	24 VDC
Operational voltage range	21 - 32 VDC
Power consumption	Typical 30W (max 50W)
Power connector	D-Sub Mixed Power F2W2

## Radio Specifications

Frequency ranges Rx/Tx	896 - 902 / 935 - 941 MHz
Channel spacing	12.5 kHz
Modulation	Modified GMSK
Modulation bit rate	8 kbps
Transmitter output power	Max 1W ( $\pm$ 1.5 dB) into internal antenna Adjustable in steps of 3dB to 125 mW
Radio Sensitivity	-113 dBm at 1% BER

## Radio data transmission

Power saving mode	Enables battery/power saving mode of terminals
Roaming	Automaticall roaming to the optimal base station
Traffic mode	Duplex
Media access control	Modified non-persistent CSMA

## Capacity

Number of channels	1 channel
Max number of subscribers	10, 250, or 500 (dependent on software licensing)

## Network communication

Network ports	Ethernet or serial (SW configurable)
Serial	RS-232C or RS-422B
Ethernet	10BaseT (RJ-45)
Link carrier protocol serial	X.25
Link carrier protocol Ethernet	XOT (X.25 over TCP IP)

## Alarms

Alarms functions	High/Low temp. Transmitter/Receiver failure One external alarm
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## Environmental

Temperature range	+5° C to +45°C
Humidity	5% to 85% RH, non condensing

## Major agency compliances

Safety / Emission / Radio	ETL listed UL 60950CAN/CSA 22 FCC CRF47 part 15, ETSI EN 301 479-5 FCC CRF47 part 2, 90
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