

Description

BX 252 is a **channel selective repeater** in both DL and UL directions designed for two-way amplification of two radio channels.

Its main advantage is price-effective coverage in areas where radio signal intensity from base station drops, e.g. in ground shifts and valleys in open fields. Another usage is radio coverage of underground areas in buildings, warehouses and garages.

A directional antenna is usually connected in UL direction and antennas or radiating cable in DL direction. On delivery, the repeater is set up onto channel frequencies specified by client. The system can be equipped with back-up power supply and with remote monitoring facility.

BX 252 is ideal for usage in TETRA networks.

Remote monitoring provides continuous remote monitoring of essential repeater(s) parameters within the GSM operator coverage.

The repeater allows operative testing of activity of amplifiers, active electronic filters, supply voltage failure, power amplifier (PA) temperature, unauthorized entering into cabinet, and backup power supply monitoring. PA – stages can be remotely switched On/Off.

Monitoring system is delivered in two versions:

The Operational and Maintenance Center – **OMC version**: The status of one or a group of repeaters is displayed on desktop computer in remote monitoring center. Service staff is notified of changes in the stage of the repeaters, and able to provide preventive maintenance interventions into the system before fault occurs. Also the alarm message of system failure can be sent to any workplace by E-mail or in the form of SMS message.

Simplified remote monitoring version: Convenient for individual repeater testing, notifies the status only by SMS message with brief fault description.



Technical Specifications

Type	BX 252	
Frequency range	MHz	370 ÷ 470 (see note)
Number of radio channels		2 UL / 2 DL
Modulation		analog / digital
Channel width	kHz	25 (20; 12.5)
Input power	dBm	-30 ÷ -95
Output power per one channel	dBm	+22
Gain	dB	50 ÷ 80 (adjustable)
Gain adjustment		manual / automatic (ALC)
VSWR		< 1.3
Impedance	Ω	50
AC power supply and back up		see table Power packs
DC power supply	V / A	24 / 3.6 DC
Ingress protection		IP 54
Operating temperature	°C	-25 ÷ +55
Dimensions w × h × d	mm	420 × 545 × 210
Weight	kg	max. 28
Connectors type		N female

Note: On customer's requirement BX 252 repeater can be set up to different operating frequency bands, such as:

- **TETRA:** 410÷415 MHz / 420÷425 MHz, 380÷385 MHz / 390÷395 MHz
- **450 MHz band**
- other, if requested

Power packs (optional)

Type	BZ 203	
Model		power pack, not backed up
Input	V / A	230 / 0.7 AC
Output voltage / current	V / A	24 / 5 DC
Ingress protection		IP 54
Operating temperature	°C	-25 ÷ +55
Dimensions w × h × d	mm	380 × 380 × 210
Weight	kg	13

Type	BZ 105	
Model		power pack, backed up
Input	V / A	230 / 0.7 AC
Output voltage / current	V / A	24 / 5 DC
Back up time at load 3.6 A	hour	5
Ingress protection		IP 54
Operating temperature	°C	-25 ÷ +55
Dimensions w × h × d	mm	350 × 700 × 240
Weight	kg	52