

BAND SELECTIVE REPEATER WITH DISTRIBUTED GAIN ARCHITECTURE

BX 203U BX 203D

DESCRIPTION

The duplex band selective repeater **BX 203** is ideal for distributed gain architecture.

Distributed gain architecture is suitable for large buildings or underground areas and tunnels for much better system radio parameters (i.e. noise and power output level for more carriers) than offered in one gain-concentrating repeater.

Such architecture usually consists of one repeater type BX 203U (master), which is located near the outdoor antenna, and one or more repeaters type BX 203D (slave) located near the radiating cable input, or indoor antennas. Repeaters are connected by a coaxial cable up to 20 dB attenuation.

The system can be equipped with back-up power supply and with remote monitoring facility.

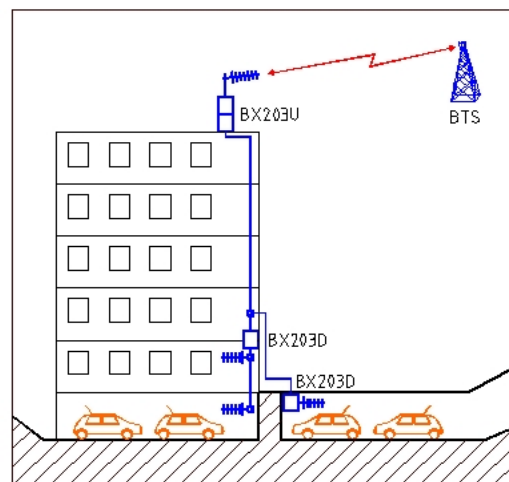
Remote monitoring provides continuous remote monitoring of essential repeater(s) parameters within the GSM operator coverage.

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 centre. Service staff is notified in changes of 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.

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



TECHNICAL SPECIFICATION

Type		BX 203U	BX 203D
Frequency range	MHz	380 to 470 (see note)	
Bandwidth	MHz	1-5 (adjustable)	
Modulation		analog / digital	
DL gain	dB	25 to 47 (adjustable)	33
UL gain	dB	33	25 to 47 (adjustable)
Gain regulation		manual / ALC	
DL output power (for one carrier)	dBm	+15 max.	+27
DL output power (for several carriers)	dBm	+10 max., for each carrier	+22 for each carrier
UL output power (for one carrier)	dBm	+27	+15 max.
UL output power (for several carriers)	dBm	+22 for each carrier	+10 max., for each carrier
VSWR		< 1,3	
Impedance	Ω	50	
Power supply	V / A	24 / 4 DC	
AC power supply and backup:		see table	
Operating temperature range	$^{\circ}\text{C}$	-25 to +55	
Protection		IP54	
Dimensions w x h x d	mm	545 x 420 x 210	
Weight	kg	max. 29	
Connectors		N type (female)	

NOTE: Operating frequency range

On client's request, the BX 203 repeater can be set up to different operating band frequencies, such as:

- TETRAPOL / TETRA: 380-385 MHz , 390-395 MHz, 410-415 MHz , 420-425 MHz
- or other, as 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
Dimensions w x h x d	mm	380 x 380 x 210
Weight	kg	13
Operating temperature	$^{\circ}\text{C}$	-25 to +55
Protection		IP 54

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 4A	hour	4.5
Dimensions w x h x d	mm	350 x 700 x 240
Weight	kg	52
Operating temperature	$^{\circ}\text{C}$	-25 to +55
Protection		IP 54