

Preliminary product Information: Rev 1A, Issue Jan 2014, Revised Jan 2014

Custom band selective RF repeater GR1801 is an indoor bi-directional amplifier that offers an increase of signal strength in medium-sized rooms.

KEY FEATURES

- Customer specified frequency band
- Compact design for easy installation
- Integrated antenna (or connector for indoor delivery network)
- Uplink & Downlink gain is separately adjustable
- Automatic gain control
- Low power consumption
- Status indicating LEDs

APPLICATION AREAS

- Shopping centers
- Hotels, offices
- Factories
- Underground parking lots



Figure 1: Repeater GR1801 front view

PRODUCT DESCRIPTION

Generally repeaters are used in mobile communication systems to provide signal coverage for an area with poor or no signal (e.g. blind spot). Rantelon Ltd came across the insufficient coverage within buildings such as offices, parking lots, apartment buildings, shopping malls, subways and tunnels.

RF repeater GR1801 series can solve these problems by amplifying the available signal from an outdoor antenna into weak coverage area via built-in antenna or indoor delivery network with multiple antennas.

LEDs on the front panel indicate proper power supply, activity of automatic gain control circuits and other nodes of GR1801.

TECHNICAL SPECIFICATIONS

Parameter	Specification
Frequency range*	UL: 1710-1785MHz & DL: 1805-1880MHz
Number of independent band-segments	Uplink: 1 / Downlink: 1
Band-segment properties	Fixed by factory
Band-segment bandwidth	15MHz (other bandwidth is available on order)
Max. gain	70dB ±2dB
Manual gain adjust range	15dB
Automatic gain control	30dB
Downlink output power*	+18dBm @ one carrier
Uplink output power*	+18dBm @ one carrier
Noise figure	4.0dB
Return loss	10dB
Spurious emission	According to ETSI standards: < -36dBm up to 1GHz; < -30dBm above 1GHz
Supply voltage	DC: +9
Current consumption	1.3A
RF connector	N-Female (SMA optionally)
Operating temperature range	-20 ... +60 °C
Pure dimensions	120 x 190 x 60mm

* Ask Rantelon for other parameters. See www.rantelon.com for more information.

ORDERING INFORMATION

Model	Description
GR1801-01/xN	With integrated coverage (indoor) antenna
GR1801-01/xNN	With RF output (coverage/indoor) connector

Rantelon reserves the right to change the specification without notice.