

Product Information: Rev 1C, Feb 2016

**Custom band selective RF repeater GR2101 is an indoor bi-directional amplifier that offers an increase of signal strength in medium-sized rooms.**

## KEY FEATURES

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- 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

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



**Figure 1: Repeater GR2101 front view**

## PRODUCT DESCRIPTION

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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 GR2101 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 GR2101.

### TECHNICAL SPECIFICATIONS

Parameter	Specification
Frequency range*	UL: 1920-1980MHz & DL: 2110-2170MHz
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*	+21.0dBm @ total composite power +18.5dBm @ 1 WCDMA carrier (forward, crest 10.55dB) each carrier +15.5dBm @ 2 WCDMA carriers (forward, crest 10.55dB)
Uplink output power*	+21.0dBm @ total composite power +21.0dBm @ 1 WCDMA carrier (reverse, crest 3.53dB) each carrier +18.0dBm @ 2 WCDMA carriers (reverse, crest 3.53dB)
Noise figure	4.0dB
Return loss	10dB
Spurious emission	According to ETSI standards: < -36dBm up to 1GHz; < -30dBm above 1GHz
ACLR	According to ETSI standards: > 45dBc @ 5MHz offset; > 50dBc @ 10MHz offset
EVM	According to ETSI standards: <12.5%
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](http://www.rantelon.com) for more information.

### ORDERING INFORMATION

Model	Description
GR2101-01/xN	With integrated coverage (indoor) antenna
GR2101-01/xNN	With RF output (coverage/indoor) connector

Rantelon reserves the right to change the specification without notice.