

RPT-9000 Cellular Repeater



The RPT-9000 is a carrier class cellular repeater and bi-directional amplifier for GSM, CDMA, WCDMA, 3G UMTS, 4G LTE*, iDEN, TDMA and AMPS. The unit can expand cellular coverage without adding a new cellular tower. In most applications this can save up to 90% of a new cell tower installation. Distances away from the cell tower can be up to ~ 60Km/37 miles or more**.

Typical applications include filling valleys and shadow areas. Cellular extension to rural areas, underground tunnels, large buildings, emergency areas and just about any location with limited or non-existent cellular reception.

The RPT-9000 is proudly manufactured in North America to the highest engineering and component standards providing the most powerful and reliable cellular repeater in its class.

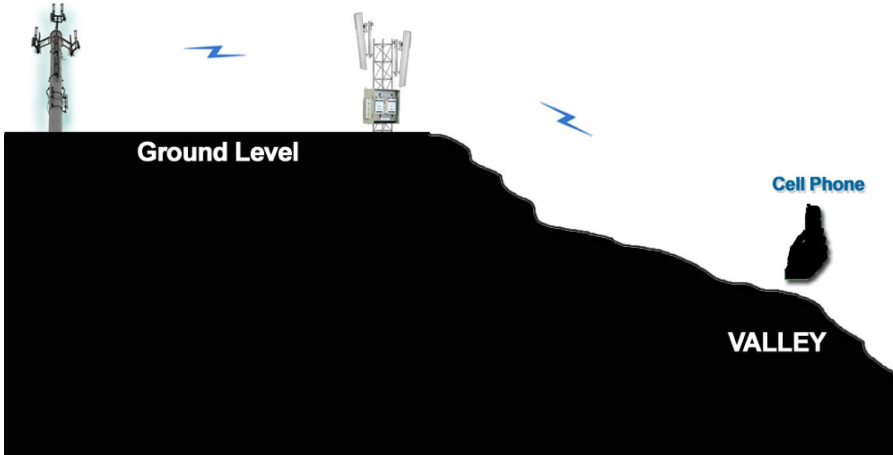
With the optional Hybrid feature, the RPT-9000 can extend RF over Fiber Optic cable to a fill antenna allowing access around large obstacles like mountains, canyons and hills.

- Extends GSM, CDMA, WCDMA, 3G UMTS, 4G LTE*, iDEN, TDMA and AMPS cellular service from existing cell towers up to 60Km/37 miles or more**
- Extends cellular Voice and Data services
- Saves up to 90% of the cost for a new cell tower
- Allows areas with weak signal or dead spots to have full cellular service
- Provides hard to reach service like underground tunnels, parking garages, tall buildings, malls and valleys
- Simple and rapid deployment
- No programming knowledge required
- Supports 700, 800, 850, 900, 1800, 1900, 2100, 2300 **or** 2600 MHz cellular service
- 850 and 1900 MHz FCC and IC certified.
- Power output - +30 dBm RMS
- Hardened NEMA enclosure with AC or DC power supply
- Low power requirements - 50 watts
- Extreme temperature capability / -30° to +60° Celsius
- Simple visual LED indicators for aligning antennas
- Simple attenuation switches for amplification settings
- 2 Year Warranty

* 700 LTE and 2100 AWS under development

** Distance is dependent on cell tower configuration timing

Cell Tower



The RPT-9000 can easily address low lying valleys with bad reception or dead spots.

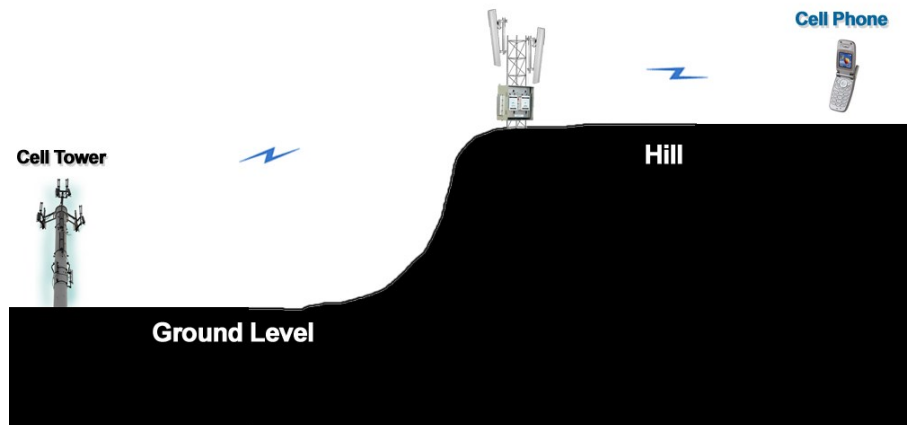
In this example, the cell tower is sitting above the valley where a community or neighborhood may reside. The cellular signal will travel across and over the valley, but unable to travel downwards with a reliable signal, if any at all.

The RPT-9000 will receive a signal from the cell tower, regenerate to full power and transmit at a downward angle to local users in the valley area.

The RPT-9000 can easily address high lying areas or hills with bad reception or dead spots.

In this example, the cell tower is sitting below the hill where a community or neighborhood may reside. The cellular signal will travel toward the top of the hill, but incapable of traveling horizontal across the top for a reliable signal, if any at all.

The RPT-9000 will receive the signal from the cell tower, regenerate to full power and transmit at the correct angle to local users at the top of the hill.

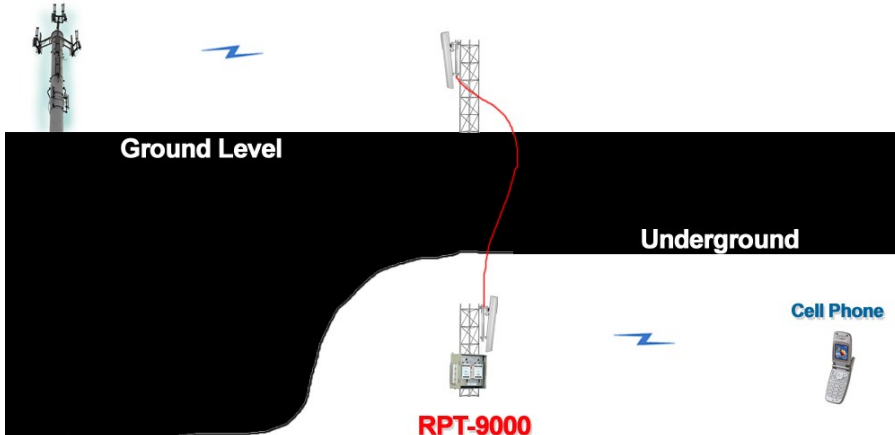


The RPT-9000 can easily address underground parking, tunnels and mines with bad reception or dead spots.

In this example, the cell tower is sitting above ground and unable to penetrate the underlying structure which may be a parking lot, tunnel or mine.

The RPT-9000 above ground donor antenna will receive a signal from the cell tower, pass underground through a cable, regenerate to full power and transmit with a fill antenna to the underground users.

Cell Tower





The alternative to Satellite, Wi-Fi and Phone lines. Providing emergency voice services to rural, underground or hard to reach places can be a challenge. A popular choice is satellite which can be effective in certain applications except for the high cost, complex technical equipment and restrictions not inherent in cellular services. With cellular services, the complex technology is hidden, you only require the cellular signal. The RPT-9000 regenerates a clear and strong signal.



The use of Wi-Fi has many limitations including distance. Traditional phone lines will not solve the problem since they are fixed and not mobile. The same is true for traditional microwave and ISM solutions. The obvious choice is to extend cellular service and maintain all the features with the RPT-9000.

Technical Specifications 700/800/850/900 MHz 1800/1900/2100/2300/2600 MHz

Frequency Range:	703-733/758-788 MHz (LTE 700) 806-821/851-866 MHz (iDEN 800) 824-849/869-894 MHz (Cell 850) 890-915/935-960 MHz (GSM 900)	1710-1785/1805-1880 MHz (GSM 1800) 1850-1910/1930-1990 MHz (PCS 1900) 1920-1980/2110-2170 MHz (UMTS 2100) 2305-2315/2350-2360 MHz (WCS 2300) 2500-2570/2620-2690 MHz (IMT-E 2600)
Passband Gain:	95 dB	90 dB
Passband Ripple :	± 2.5 dB Maximum	± 2.5 dB Maximum
Channel Ripple:	2 dB Maximum	2 dB Maximum
EVM:	< 3%	< 3%
Absolute Delay:	< 2 μs	< 2 μs
Rx Noise Figure@Max Gain:	3.7 dB Typical	4.0 dB Typical
IMD 2 Tone :	43 dBc Typical	43 dBc Typical
Power Output:	+30 dBm RMS	+30 dBm RMS
RF Connectors:	50 Ω N Type, Female	50 Ω N Type, Female
Maximum VSWR:	1.5 : 1	1.5 : 1
Manual Gain Control:	50 dB in 2dB Steps	50 dB in 2dB Steps
Spurious Outputs:	55 dBc Max	55 dBc Max
Power Supply:	24 or 28 VDC @50W, 90-260 VAC	24 or 28 VDC @50W, 90-260 VAC
Operating Temperature:	-30°C - +60°C	-30°C - +60°C
Unit Size :	14.5 x 16.5 x 11.5" 36 x 41 x 29 cm	14.5 x 16.5 x 11.5" 36 x 41 x 29 cm
Weight:	52 lbs, 23 kg Typical	52 lbs, 23 kg Typical
Enclosure Type	NEMA 4A, 12	NEMA 4A, 12

For more information:

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