

# CR Series SOHO In-building Repeater

AMPS • PCS • TDMA • GSM • CDMA • iDEN



## **Description**

The SignalReach<sup>TM</sup> CR Series Small Office Home Office (SOHO) In-building Repeaters extend cellular and iDEN services into buildings and other poor coverage areas. The CR Series Repeaters are designed for use with cellular and iDEN telephones (850 and 1900 MHz, and iDEN band) and offer a cost-effective solution for small business and residential applications. The repeaters are useful in areas where cellular or iDEN service is available outside of the building and marginal indoors. The two-way radio functionality of cellular and iDEN telephones is preserved.

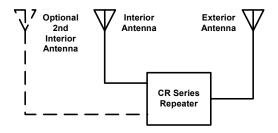
The repeaters are network-compatible devices that amplify cellular or iDEN signals in both the uplink and downlink directions. The repeaters are simple to install, and contains circuitry to ensure proper operating power levels, and as well, include automatic low isolation and detection circuitry that detects low isolation between the indoor and outdoor antennas. In this condition, the repeaters will adjust their gain to compensate for the abnormality, and warn the user through an indicator LED. The CR Series Repeaters will enhance the cellular or iDEN telephone user's experience while complying with cellular and iDEN network specifications. The repeaters will also work with wireless PDAs (Wireless Digital Assistants) and laptop personal computers with wireless PC cards. Linear operation is guaranteed under all conditions.

The CR Series Repeaters allow up to two indoor antennas to be used without the need of external components. Their auxiliary indoor antenna port allows a second indoor zone to be easily connected. The repeaters can be powered by their AC adapter or through the in-building antenna port using an optional power inserter. The repeaters can also be battery-backed, by connecting the repeaters' 12VDC supply to the spades of a rechargeable battery with the repeaters' optional battery back-up interface cable. The rechargeable battery is then permanently connected to the battery manufacturer's recommended trickle charger keeping the battery charged indefinitely, ready in the event of a building power failure.

#### **Features**

- Easy Installation no calibration required,
- Up to 40,000 sq. ft. of free space coverage (with two interior antennas),
- Automatic Low Isolation Detection and Indication Circuitry,
- Feedback Overload Shutdown and Auto Start,
- Auto levelling circuitry ensures linear operation,
- Network-compatible operation,

- Auxiliary in-building antenna port provides enhanced coverage,
- · FCC approved,
- Can be connected to battery back-up system for emergency powering,
- Optional power inserter available,
- Optional battery back-up interface cable available.



### **RF Specifications**

	Specification	CR100	CR300	CR500	Specification	All Products
		Cellular	iDEN	PCS		
Up-link	Frequency Range (MHz)	824-849	806-825	1850-1910	Low Isolation Detection	An amber LED indicator will indicate low isolation between indoor
	Output Power (dBm)	+23	+23	+23		and outdoor antennas.
	Maximum Gain (dB)	60	60	60	Maximum Possible	At the interior antenna port, exposure to non-ionizing radiation meets
					Exposure (MPE)	or exceeds the permissible FCC mandated MPE specification.
Down-	Frequency Range (MHz)	869-894	851-870	1930-1990		
link	Output Power (dBm)	+15	+15	+15	Group Delay	150 nS (Typical)
	Maximum Gain (dB)	60	60	60		

# **General Specifications**

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Specification	All Products						
Power Requirements	120V AC adapter included.  For battery back-up, third party back-up system must be +12VDC, 8 Amp-Hours min (for 8 hours operation on battery)						
Operating Temperature Range	-40 to +60°C (-40 to 128°F); indoor use only						
Dimensions	165mm L x 152mm W x 33mm H (6.50" L x 5.98" W x 1.30" H) without RF connectors						
Net Weight	1.36 kg (3 lbs)						
RF Connectors	TNC Female						
Recommended Indoor Antenna	3 dBi ceiling mount omni-directional						
Recommended Outdoor Antenna	2 dBi omni-directional						
Included Accessories	120V AC adapter						
Optional Accessories <sup>1</sup>	Power inserter, indoor and outdoor omni-directional antennas, 5m (16.25') low loss RF cable for the interior antenna interface, battery back-up interface cable						

<sup>&</sup>lt;sup>1</sup> Recommended exterior antenna cable types are indicated in the product's installation and user manual. An exterior directional antenna may be required in some cases where network coverage is weaker.

