

# *Seohwa*

## *Home Repeater Systems*

iDEN, CDMA 800 / 1900, GSM 900



## Home Repeater System

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**Need Instant In-Door Cellular Coverage?  
Then the Seohwa's Pico Repeater will be serving for you...**

*The Seohwa's Pico Repeater can provide improved reception to a room in the quickest possible time.*

The **SHPR90-G1(GSM Repeater)** full duplex communications repeater from Seohwa Telecom is the ideal solution for providing a wireless improvement in the cellular reception of a home, office, restaurant or building, in the quickest possible time, on the GSM Networks.

The current system only covers GSM but we are going to upgrade with the additional technology like as CDMA/iDEN/PCS/DCS1800.

It is designed to improve the call quality of an area by receiving, amplifying and re-transmitting signals of the base station into a specified area.

Installation is extremely simple and can be done in a few minutes. No special tools, test equipment or technical knowledge of your network is required. The repeater is fully adjustable and will fine-tune itself as conditions change. Multiple units can also be deployed to cover larger office areas and working locations.

To maintain safe and specific output signal levels, the repeater has built-in ALC circuits, which can automatically control the level of the repeater depending upon the strength of input signals. In addition, to prevent the repeater from re-producing errors due to excessive signal strengths from outside or, oscillation which can have adverse effects on a base station, the repeater runs an auto shutdown function, which switches the repeater's power off automatically if this ever occurs.

## Specifications

## Model NO. SHPR90-G1 GSM Home Repeater

Electrical Specifications	
Frequency Range	FWD: 935 ~ 960 MHz, RVS: 890 ~ 915 MHz
Gain	60 ± 2 dB
Gain Flatness	≤ 3 dB (@ 25 MHz BW)
Frequency Stability	≤ ± 0.03 ppm
ALC Range	30dB
Input Level (max)	FWD: -30 dBm/Total, RVS: -30 dBm/Total
Output Level (max)	FWD & RVS: +10 dBm/Total @ Total 12 CHs
Shutdown Level	14 ~ 16 dBm/Total @ Total 12 CHs
Tx/Rx Isolation	≥ 85 dB
Noise Figure	≤ 5 dB (@ Gain 60 ~ 45)
Spurious Emission	ETS-300
IMD(IIP3)	≥ -18dBm
VSWR	≤ 1.5:1
Propagation Delay	≤ 1 us
Control	No Control Interface
Impedance	50

Mechanical Specifications	
Operating Temp.	-10 ~ +60 °C / 24 ~ 140 °F
Cooling	Convection
Input Connector	SMA (Female)
Output Connector	SMA (Female)
Dimensions (W x H x D)	180x120x50 mm / 7.0x4.7x1.97 inch
Weight	800 g / 1.764 lbs
Power	7 V DC / 115 V AC

Specifications can be modified based on customer's needs

## Specifications

## Model NO. SHPR80-C1 CDMA Cellular Home Repeater

Electrical Specifications	
Frequency Range	FWD: 869 ~ 894MHz, RVS: 824 ~ 849 MHz
Gain	60 ± 2 dB
Gain Flatness	≤ 3 dB (@ 25 MHz BW)
Frequency Stability	≤ ± 0.03 ppm
ALC Range	30dB
Input Level (max)	-120 ~ -40 dBm
Output Level (max)	10 dBm / Total
Shutdown Level	14 ~ 16 dBm/Total@1FA
Tx/Rx Isolation	≥ 85 dB
Noise Figure	≤ 5 dB
Spurious Emission	29dBc@±750KHz
	39dBc@±1.98MHz
VSWR	≤ 1.5:1
Propagation Delay	≤ 1 us
Control	No Control Interface
Impedance	50

Mechanical Specifications	
Operating Temp.	-10 ~ +60 °C / 24 ~ 140 °F
Cooling	Convection
Input Connector	SMA (Female)
Output Connector	SMA (Female)
Dimensions (W x H x D)	180x120x50 mm / 7.0x4.7x1.97 inch
Weight	800 g / 1.764 lbs
Power	7 V DC / 115 V AC

Specifications can be modified based on customer's needs

## Specifications

Model NO. SHPR19-P1 PCS (ADB Band) Home Repeater

Electrical Specifications	
Frequency Range	FWD: 1930 ~ 1965MHz, RVS: 1850 ~ 1885 MHz
Gain	60 ± 2 dB
Gain Flatness	≤ 4.5 dB (@ 35 MHz BW)
Frequency Stability	≤ ± 0.03 ppm
ALC Range	30dB
Input Level (max)	-120 ~ -40 dBm
Output Level (max)	10 dBm / Total
Shutdown Level	14 ~ 16 dBm/Total@1FA
Tx/Rx Isolation	≥ 85 dB
Noise Figure	≤ 5 dB
Spurious Emission	29dBc@±885KHz
	34dBc@±1.98MHz
VSWR	≤ 1.5:1
Propagation Delay	≤ 1 us
Control	No Control Interface
Impedance	50

Mechanical Specifications	
Operating Temp.	-10 ~ +60 °C / 24 ~ 140 °F
Cooling	Convection
Input Connector	SMA (Female)
Output Connector	SMA (Female)
Dimensions (W x H x D)	180x120x50 mm / 7.0x4.7x1.97 inch
Weight	800 g / 1.764 lbs
Power	7 V DC / 115 V AC

Specifications can be modified based on customer's needs

## Specifications

## Model NO. SHPR19-P2 PCS (EFC Band) Home Repeater

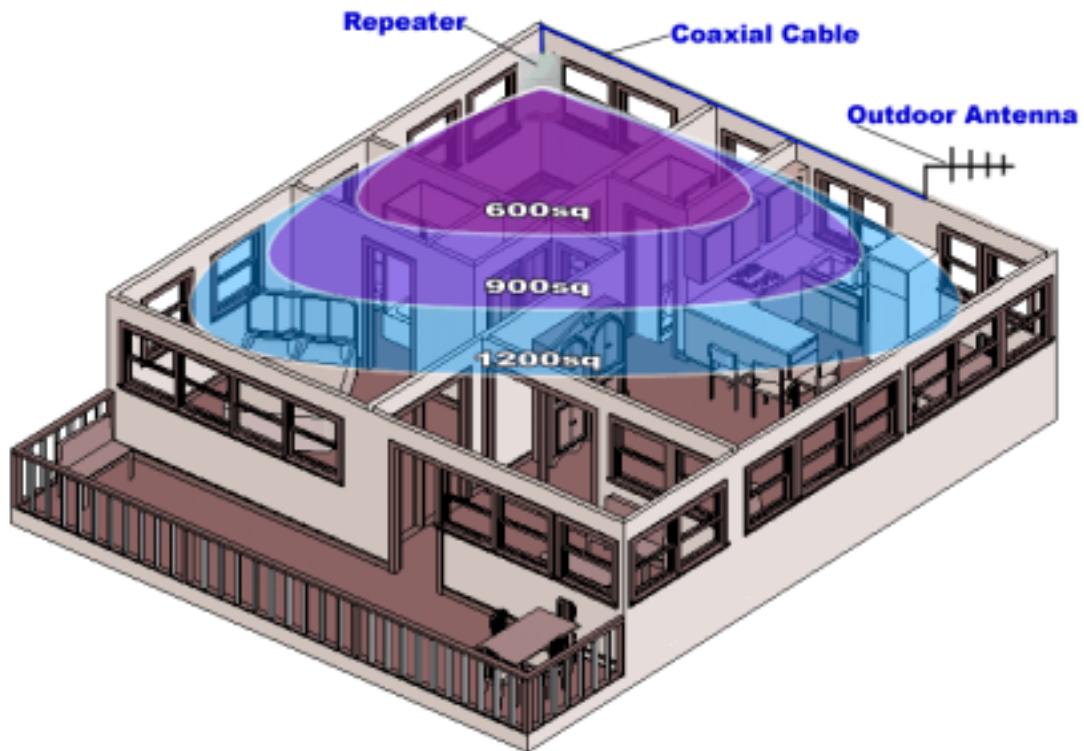
Electrical Specifications	
Frequency Range	FWD: 1965 ~ 1990MHz, RVS: 1885 ~ 1910 MHz
Gain	60 ± 2 dB
Flatness	≤ 4 dB (@ 25 MHz BW)
Frequency Stability	≤ ± 0.03 ppm
ALC Range	30dB
Input Level (max)	-120 ~ -40 dBm
Output Level (max)	10 dBm / Total
Shutdown Level	14 ~ 16 dBm/Total@1FA
Tx/Rx Isolation	≥ 85 dB
Noise Figure	≤ 5 dB
Spurious Emission	29dBc@±885KHz
	34dBc@±1.98MHz
VSWR	≤ 1.5:1
Propagation Delay	≤ 1 us
Control	No Control Interface
Impedance	50

Mechanical Specifications	
Operating Temp.	-10 ~ +60 °C / 24 ~ 140 °F
Cooling	Convection
Input Connector	SMA (Female)
Output Connector	SMA (Female)
Dimensions (W x H x D)	180x120x50 mm / 7.0x4.7x1.97 inch
Weight	800 g / 1.764 lbs
Power	7 V DC / 115 V AC

Specifications can be modified based on customer's needs

### Features

- Cellular RF Repeater
- Easy To Install & Maintain
- Auto Level Control
- Auto Shutdown Feature
- Low Output Power
- Compact Design
- RSSI - Received Signal Strength Emission
- Indoor Application Coverage about 165 m<sup>2</sup>



Side View



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