

GSM1900 Band Adjustable Pico Repeater

SP-1910



Features

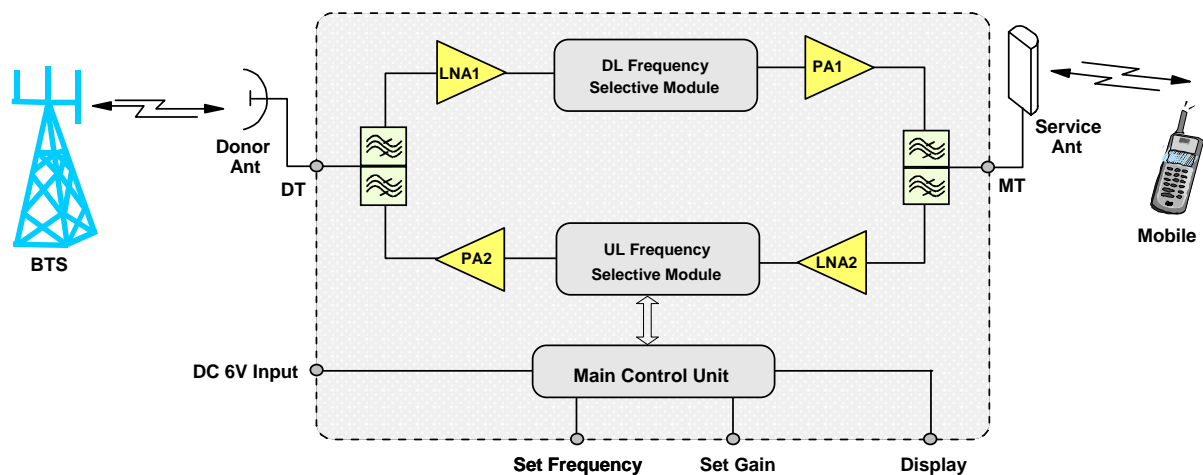
- 15dBm Uplink and Downlink output power.
- Fixed 15MHz bandwidth and operating band adjustable within 60MHz.
- With integrated antenna (6dBi gain) and option for connecting to external antenna.
- Broadband linear power amplifier ensures undistorted amplification of GSM1900 signals.
- Low noise amplifier improves uplink system noise figure for better voice quality and reduced drop call.
- System commissioning can be performed without using any additional tool or equipment.
- Highly integrated design with miniaturized enclosure, light weight and easy to install.



Product Description

The SP-1910 GSM1900 Band Adjustable Pico Repeater is designed for indoor operation. It is a bi-directional amplifier that is used to enhance signal strength in small-and-medium-sized areas in a GSM1900 network. The system gain is compensated automatically according to the temperature variation within the enclosure, which ensures stable operation under ambient temperature. It is best suitable for provisions of signal coverage within offices and residential apartments.

Functional Block Diagram



Technical Specifications

Electrical			
Frequency Range	Downlink	MHz	1930 – 1990
	Uplink	MHz	1850 – 1910
Maximum System Gain		dB	65
Operating Bandwidth*	Downlink	MHz	15
	Uplink	MHz	
Output Power, Downlink	With Integrated Antenna	dBm	15 ± 1.5
	Without Integrated Antenna	dBm	14 ± 1.5
Output Power, Uplink		dBm	15 ± 1.5
Pass Band Ripple, p-p		dB	≤ 5
System Group Delay		μsec	≤ 6
System Noise Figure at Maximum Gain, Uplink		dB	≤ 6
Input VSWR			≤ 2
Absolute Maximum RF Input Power		dBm	+10
Impedance		Ω	50
Compliance			FCC Part15 and Part24
Power, Mechanical & Environmental			
Dimensions, H x W x D	mm		235 x 150 x 68
Weight (approx.)	kg		2.5
Power Supply	VAC		90 – 264 / 45 – 65Hz
Power Consumption (approx.)	W		20
Enclosure Cooling			Convection
RF Connectors			SMA
Operating Temperature	°C		-20 to +40
Operating Humidity	%		≤ 85
Environmental Class			IP40
MTBF	hr		> 50,000

Note: Typical specification at room temperature
 *Fixed bandwidth and centre frequency adjustable

Operation and Maintenance

The system commissioning of the SP-1910 can be performed without using any additional tool or equipment. Once the equipment lid is removed, programming the equipment is through the integrated control panel with visual feedback by LEDs:

With the front cover removed, a control panel is used to display and set the working parameters of the equipment is revealed:

- A two row LCD display provides visual feedback of all RF parameters.
- A keypad is used to program all RF parameters.

Outline Drawing

