

Features

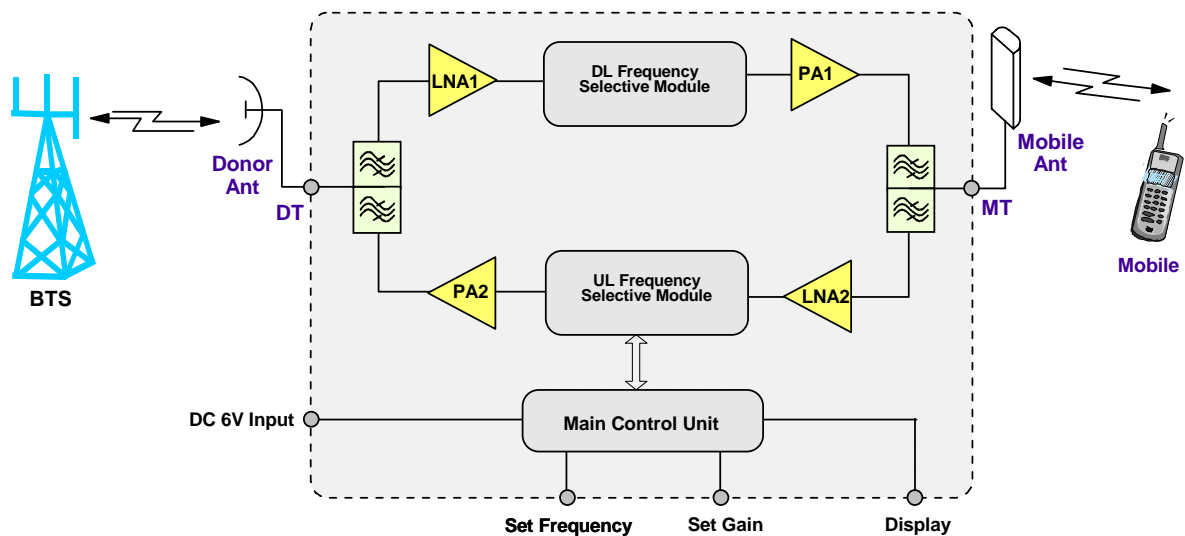
- 15dBm Uplink and Downlink output power.
- With integrated antenna (6dBi gain) and option for connecting external antenna.
- Broadband linear power amplifier ensures un-distorted amplification of GSM900 signals.
- Low noise amplifier improves uplink system noise figure for better voice quality and reduced dropped call.
- System commissioning can be performed without using any additional tools or equipment.
- Highly integrated design with miniaturized enclosure, small size, light weight and easy to install.



Product Description

SP-9120 GSM900 Bandwidth Adjustable Pico Repeater is designed for indoor operations. It is a bi-directional amplifier that is used to enhance signal strength in small-and-medium-sized areas in a GSM900 network. The system gain is compensated automatically according to the temperature variation within the enclosure, which ensures stable operation under ambient temperature functions. It is best suitable for provision of signal coverage within offices and residential apartments.

Functional Block Diagram



Technical Specifications

Model			0.03W
Electrical			
Frequency Range	Downlink	MHz	935 – 960 or 925 – 960
	Uplink	MHz	890 – 915 or 880 – 915
Maximum System Gain		dB	60
Operating Bandwidth	Downlink	MHz	2 – 25*
	Uplink	MHz	25**
Gain Adjustment Range (1dB step)		dB	0 – 20
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	≤ 6
System Group Delay		μsec	≤ 6
System Noise Figure UL at Maximum Gain		dB	≤ 8
Spurious, Δf ≥ 1MHz	9KHz – 1GHz	dBm	ETSI EN 300 609 – 4 V8.0.2
	1GHz – 12.75 GHz	dBm	
Out-of-band Gain		dB	
Intermodulation		dB	
Input VSWR			≤ 2.0
Absolute Maximum RF Input Power		dBm	+10
Impedance		Ω	50
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

*Customizable from 2 to 25 bandwidth

** Fixed bandwidth and central frequency adjustable

System Commissioning

The system commissioning of SP-9120 can be performed without using any additional tool or equipment. Once the equipment lid is removed, programming the equipment is through operating the integrated control panel with visual feedback by LEDs.

With the front cover removed, a control panel which 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

