WCDMA Band Adjustable Pico Repeater

SP-2110

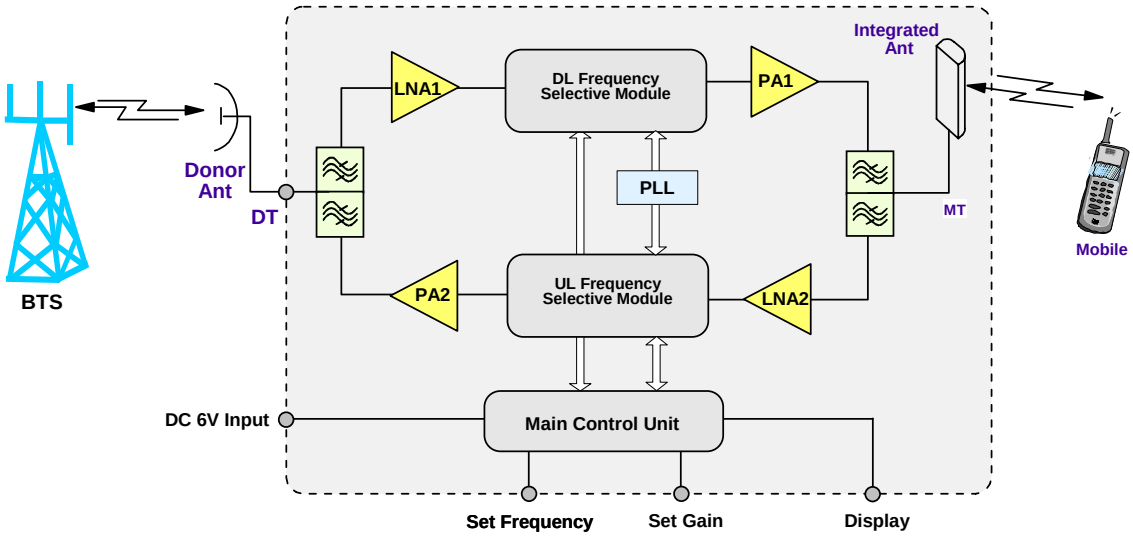
Features

- Bandwidth options of 5MHz, 10MHz and 15MHz, which are adjustable within 60MHz and can be configured through setting center frequency.
- With integrated antenna (6dBi gain) and option for connecting external antenna.
- 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 tool or equipment.
- Highly integrated design with miniaturized enclosure, light weight and easy to install.

Product Description

The SP-2110 WCDMA 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 WCDMA network. The system gain is compensated automatically according to the temperature variation within the equipment enclosure, which ensures stable operation under ambient temperature. It is best suitable for provision of signal coverage within offices and residential apartments.

Functional Block Diagram



Technical Specifications

Model			**0.05W**
Electrical			
Frequency Range	Downlink	MHz	2110 – 2170
	Uplink	MHz	1920 – 1980
Maximum System Gain		dB	60
Operating Bandwidth	Downlink	MHz	5, 10, 15
	Uplink	MHz	
Gain Adjustment Range (2dB step)		dB	0 – 28
Output Power, Downlink	With Integrated Antenna	dBm	17 ± 1.5
	Without Integrated Antenna	dBm	16 ± 1.5
Output Power, Uplink		dBm	17 ± 1.5
Pass Band Ripple, p-p		dB	≤ 2
System Group Delay		μsec	≤ 4
Uplink System Noise Figure at Maximum Gain		dB	≤ 5
Spurious		dBm	3GPP TS 25.106 V6.1.0
Intermodulation		dBm	
Input Intermodulation		dBm	
Downlink Input VSWR			≤ 1.5
Absolute Maximum RF Input Power		dBm	+10
Impedance		Ω	50
Power, Mechanical & Environmental			
Dimensions, H x W x D		mm	235 x 150 x 54
Weight (approx.)		kg	1.5
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

System Commissioning

The system commissioning of SP-2110 can be performed without using any additional tool or equipment. Once the equipment lid is removed, programming the equipment is through operating three dial switches with visual feedback by LED.

Located on the lower-right of the internal operating panel are the three dial switches: "Freq Control", "Freq Offset" and "Gain":

- Freq Control: is used to set centre frequency and control the working band of the equipment.
- Freq Offset: is used to offset the working frequency preset by "Freq Control".
- Gain: is used to adjust and control equipment gain, which are adjusted according to the actual input signal strength.

Outline Drawing