HPC-G27&LCD GSM900mhz Mobile Phone signal booster

A signal booster or cell phone repeater is a device used for boosting the cell phone network to the local area by the usage of a reception antenna. In simple words, wireless signal booster is a device to boost the wireless signal and this device make wireless coverage more and more. Wireless repeaters are practical, beautiful and easy to install.Wireless repeaters are designed to meet the needs and requirements of modern citizens. Wireless repeaters come complete with everything necessary for a full cell phone repeater system enabling you to use your cell phone wherever you are. One of the most popular applications of a wireless signal repeater is its use in buildings which are signal isolated. When a house is located too far from the telecom station, which is usually installed around a city, cell phone signal can be very low.

We provides signal boosters kits for any Homes, Offices, Cars, RV's, Boats and more. All amplifier kits come with Indoor and Outdoor Antennas, Cables, Power adapters and more.

HPC-G27&LCD Single band repeater is to support any two mobile band existing in the world to help end users to improve mobile signals for much better phone call quality and smoother data transmission. It is designed to support coverage area max can up to 2000 square meters with proper engineering. Below are the main features.

1. The consumer repeater is an ideal solution for providing a cost effective improvement in cellular in-building coverage of a home, office, restaurant or building, in the quickest time possible.
2. Manual gain control (MGC) available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
3. To maintain safe and specific output signal levels and give alarms on self-oscillation, the repeater has built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
4. Auto shut off function available for both uplink and downlink to avoid deep self-oscilation from jamming the towers, saving your trouble from operators.
5.Wide band feature enables all devices operating within the wide frequency range of the repeater to see an improvement in performance.
6.Multiple phones and other handheld devices throughout a building can benefit from a wireless repeater.
7.Supports up to (500) users / calls simultaneously.
8.Extended phone battery life. (Your phone does not need to put out as much power due to improved reception.)

HPC-G27&LCD GSM900mhz repeater Features:

1. With unique appearance design, have good cooling function

2. With MGC function,(Manual Gain Control), Customer can adjust the Gain as needed ;

3. With DL signal LED display, help to install the outdoor antenna at the best state;

4.With AGC and ALC, make repeater work stable .

5.PCB with isolation function ,make UL and DL signal not influence each other,

6.Low intermodulation, high Gain ,stable Output power

7. With LCD Dispay , Help to know the repeater working performance correctly

How to know the repeater working performance ?

1. LCD Display function Introduction

	**After plug in the power adaptor, Its means repeater is starting working;**
	**When outdoor signal -70dBm to -55dBm ,Its means repeater working with best full power ;**
	**Its means outdoor antenna no signal coming ,we need to adjust outdoor antenna to be better signal place;**
	**Its means outdoor signal coming too stronger, we need to use longer cable or adjust the outdoor antenna installation;or adjust the gain switches dips.**
	**We can adjust the switches dips as we needed working power higher or lower ;**

2. LED Display Introduction :

On the repeater ,there is only one LED

The “on call “LED :

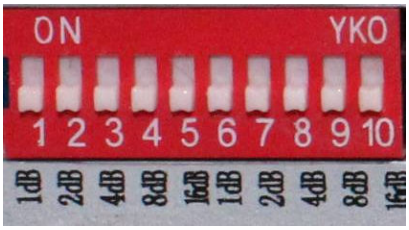
1. **Display is working ,and the “on Call “LED is not lighted , it means repeater is working fine ;**
2. **Display is working ,and the “on call “LED is always lighted red , its means the repeater happened Self-excitation, we need to adjust the outdoor and indoor antenna distance to be more far ;**
3. **Display is working , but the “on call “LED is Blinking, its means the repeater working fine and there is phone calling ;**
4. **Display is not working , it means power adaptor is broken ,we need to change the power adaptor ;**

Manual Gain Control

What is MGC function? And what is the advantage?

- MGC function means Manual Gain Control
- when your outdoor signal too stronger, so the repeater can not work well and have noise, so you can adjust the Gain by yourself ;

Manual Gain Control (MGC)



Code switch→Attenuation：

DL：1→1dB 2→2dB 3→4dB 4→8dB 5→16dB

UL：6→1dB 7→2dB 8→4dB 9→8dB 10→16dB

Switches1-5 represents Downlink and 6-10 represent Uplink.

When it is necessary to adjust the gain by the switch, firstly please adjust Downlink gain according to input signals, secondly please adjust Uplink gain according to Downlink gain. For Example you want to

make the 3G Gain down 1dB, so you make the switches “1” and “6”is OK.
The switches have default “OFF” status; please push relevant switches to “ON” position if certain attenuation value needs to be achieved.

The Downlink attenuation setting

ATT	1	2	3	4	5	ATT	1	2	3	4	5	ATT	1	2	3	4	5
0dB	OFF	OFF	OFF	OFF	OFF	11dB	ON	ON	OFF	ON	OFF	22dB	OFF	ON	ON	OFF	ON
1dB	ON	OFF	OFF	OFF	OFF	12dB	OFF	OFF	ON	ON	OFF	23dB	ON	ON	ON	OFF	ON
2dB	OFF	ON	OFF	OFF	OFF	13dB	ON	OFF	ON	ON	OFF	24dB	OFF	OFF	OFF	ON	ON
3dB	ON	ON	OFF	OFF	OFF	14dB	OFF	ON	ON	ON	OFF	25dB	ON	OFF	OFF	ON	ON
4dB	OFF	OFF	ON	OFF	OFF	15dB	ON	ON	ON	ON	OFF	26dB	OFF	ON	OFF	ON	ON
5dB	ON	OFF	ON	OFF	OFF	16dB	OFF	OFF	OFF	OFF	ON	27dB	ON	ON	OFF	ON	ON
6dB	OFF	ON	ON	OFF	OFF	17dB	ON	OFF	OFF	OFF	ON	28dB	OFF	OFF	ON	ON	ON
7dB	ON	ON	ON	OFF	OFF	18dB	OFF	ON	OFF	OFF	ON	29dB	ON	OFF	ON	ON	ON
8dB	OFF	OFF	OFF	ON	OFF	19dB	ON	ON	OFF	OFF	ON	30dB	OFF	ON	ON	ON	ON
9dB	ON	OFF	OFF	ON	OFF	20dB	OFF	OFF	ON	OFF	ON	31dB	ON	ON	ON	ON	ON
10dB	OFF	ON	OFF	ON	OFF	21dB	ON	OFF	ON	OFF	ON						

The Uplink attenuation setting

ATT	6	7	8	9	10	ATT	6	7	8	9	10	ATT	6	7	8	9	10
0dB	OFF	OFF	OFF	OFF	OFF	11dB	ON	ON	OFF	ON	OFF	22dB	OFF	ON	ON	OFF	ON
1dB	ON	OFF	OFF	OFF	OFF	12dB	OFF	OFF	ON	ON	OFF	23dB	ON	ON	ON	OFF	ON
2dB	OFF	ON	OFF	OFF	OFF	13dB	ON	OFF	ON	ON	OFF	24dB	OFF	OFF	OFF	ON	ON
3dB	ON	ON	OFF	OFF	OFF	14dB	OFF	ON	ON	ON	OFF	25dB	ON	OFF	OFF	ON	ON
4dB	OFF	OFF	ON	OFF	OFF	15dB	ON	ON	ON	ON	OFF	26dB	OFF	ON	OFF	ON	ON
5dB	ON	OFF	ON	OFF	OFF	16dB	OFF	OFF	OFF	OFF	ON	27dB	ON	ON	OFF	ON	ON
6dB	OFF	ON	ON	OFF	OFF	17dB	ON	OFF	OFF	OFF	ON	28dB	OFF	OFF	ON	ON	ON
7dB	ON	ON	ON	OFF	OFF	18dB	OFF	ON	OFF	OFF	ON	29dB	ON	OFF	ON	ON	ON
8dB	OFF	OFF	OFF	ON	OFF	19dB	ON	ON	OFF	OFF	ON	30dB	OFF	ON	ON	ON	ON
9dB	ON	OFF	OFF	ON	OFF	20dB	OFF	OFF	ON	OFF	ON	31dB	ON	ON	ON	ON	ON
10dB	OFF	ON	OFF	ON	OFF	21dB	ON	OFF	ON	OFF	ON						

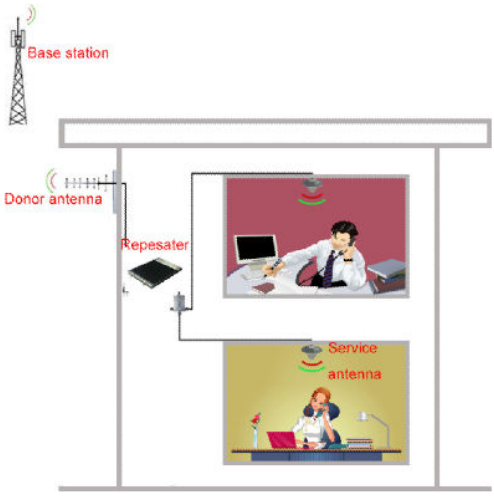
Specification of HPC-G27&LCD Single band repeater:

Electrical specification		Uplink	Downlink
Frequency Range	GSM900	890 ~ 915 MHz	935 ~ 960 MHz
Max .Gain		≥ 70dB	≥ 75dB
Max .Output Power		≥ 24dBm	≥ 27dBm
MGC (Step Attenuation)		≥31dB / 1dB step	
Automatic Level Control		≥ 20dB	
Gain Flatness	GSM & CDMA	Tpy≤ 6dB(P-P); DCS,PCS ≤ 8dB(P-P)	

	WCDMA	≤ 2dB/ 3.84MHz,Full Band ≤ 5dB(P-P)
Noise Figure		≤ 5dB
VSWR		≤ 2.0
Group Delay		≤ 1.5μs
Frequency stability		≤ 0.01ppm
Spurious Emission & Output inter-modulation		GSM Meet ETSI TS 151 026 V 6.1.0
		WCDMA Meet 3GPP TS 25.143 (V 6.2.0)
		CDMA Meet IS95 & CDMA2000
WCDMA System	Spurious Emission Mask	Meet 3GPP TS 25.143 (V 6.2.0)
	Modulation Accuracy	≤ 12.5%
	Peak Code Domain Error	≤ -35dB@Spreading Factor 256
CDMA System	Rho	ρ > 0.980
	ACPR	Meet IS95 & CDMA2000
Mechanical Specifications		**Standard**
I /O Port		N-Female
Impedance		50 ohm
Operating Temperature		-25°C~+55°C
Environment Conditions		IP40
Dimensions		155x112x85mm
Weight		≤ 1.50Kg
Power consumption		24W
Power Supply		9V-24V

The installtion of the Repeater

Outdoor antenna (for receiving the signal from the BTS) + Cable (transfering the received signal) + Repeater (for amplifying the received signal) + cable(for transfering the amplified signal) + indoor antenna(for shooting the amplified signal),



(Note : Omni indoor antenna is 3dBi,it can work with about 200m2 . If need repeater coverage larger area , need add more antenna,the HPC-G-27 Max can work with 10pcs indoor antenna. (when add antenna ,please remember to take splitters)

Installation steps

Step 1 Start by taking your phone up to the roof or other location outside to find where the signal is strongest.

Step 2 Temporarily mount the Outdoor (outside) antenna in that location. You may need to adjust and move the antenna later.

Step 3 Run coaxial cable into the building to a convenient loaction (attic, etc.) where you can also get standard power for the Signal Repeater.

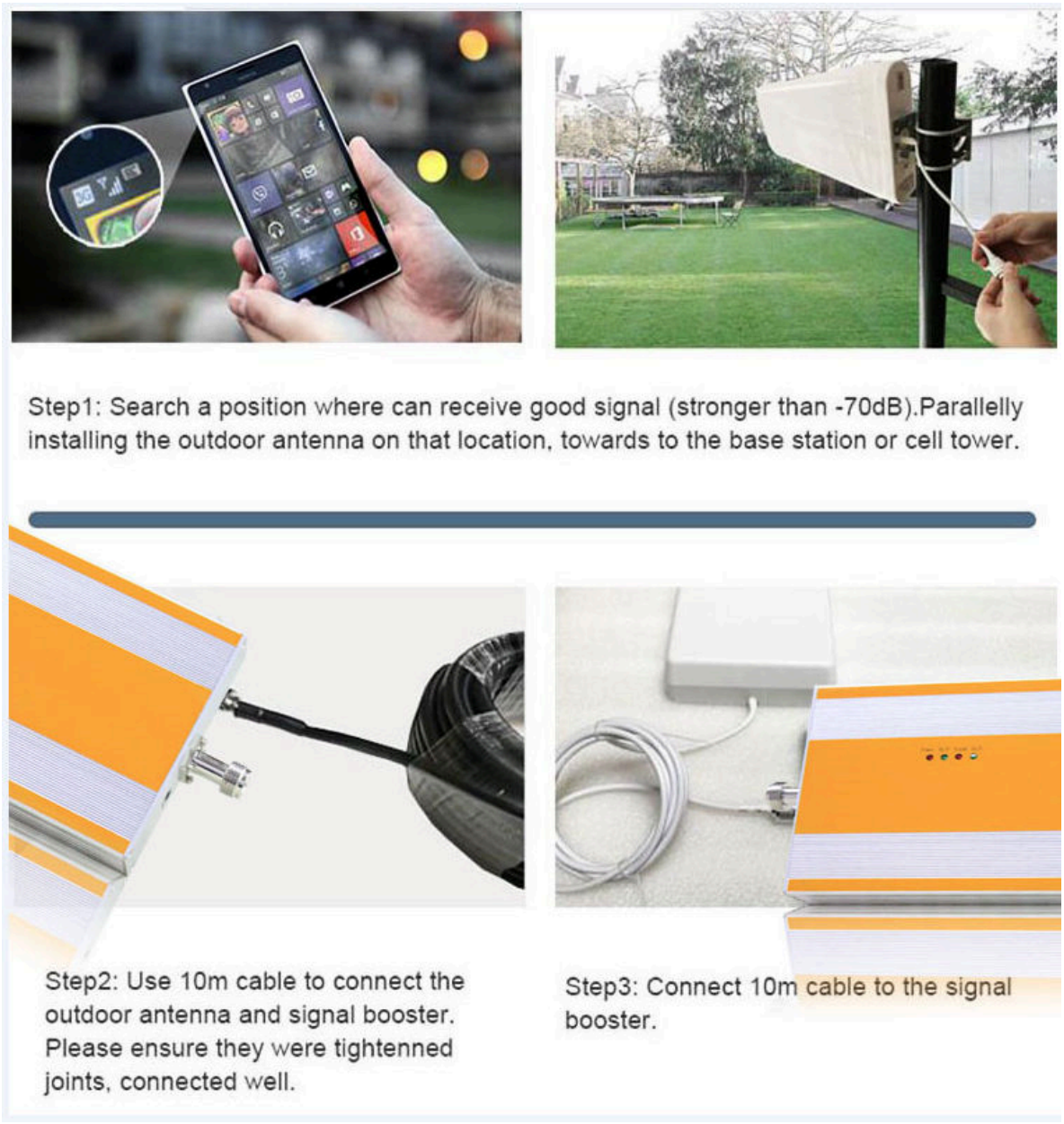
Step 4 Place the Signal Repeater in that location and connect the coaxial cable to the Outdoor Side of the Signal Repeater and the Outdoor antenna.

Step 5 Mount your Indoor (inside) antenna in a productive location. You may need to adjust or move the antenna later. More notes on Indoor antennas and patterns here.

Step 6 Connect coaxial cable between the Indoor antenna and the Signal Repeater output port.

Step 7　Power up the system and check for signal inside the building. If needed, tune system by moving and or pointing the Outdoor and Indoor antennas until they get the most signal possible.

Step 8 Secure all antennas and cables, securely mount the Signal repeater and clean up the installation.



Of course there are still a few more things to consider but in general, this is the basic procedure. For more information, please contact us.