

BTS Power Booster

BPB867 (GSM 900MHz) / BPB887 (GSM 1800MHz) / BPB897 (GSM 1900MHz)
 BPB917 (CDMA 450MHz) / BPB937 (CDMA 800MHz) / BPB997 (CDMA 1900MHz)

The cost-effective BTS Power Booster (BPB) is designed to expand signal coverage through enhancing the downlink transmission power of BTS in the area where it is too expensive to build a new BTS or too difficult to choose the installation site for a repeater.

It is installed close to the BTS and amplifies the BTS signal via an ultra-linear amplifier unit, then transmits the amplified signal to the Tx antenna input port. A Tower Mount Booster (TMB) is usually installed under the Rx antenna as an auxiliary equipment to improve the balance between uplink and downlink.

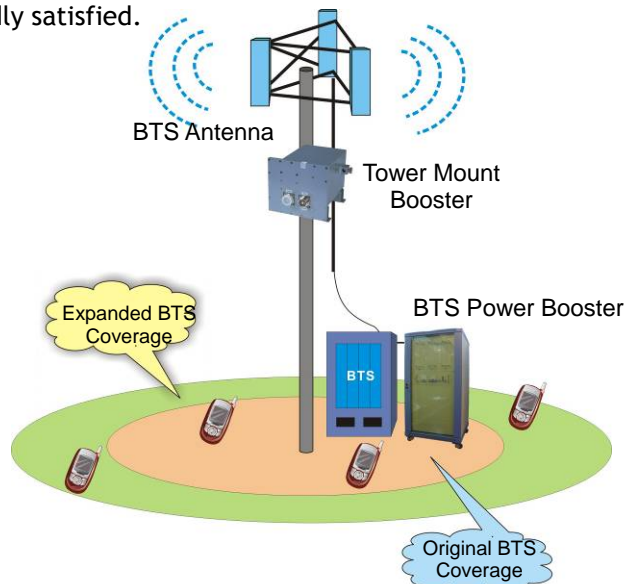


FEATURES

- Effective coverage area of base station can be extended by 2-4 times;
- Flexible configuration of modules can accommodate to different type of BTS;
- Adopting standard 19-inch cabinet makes installation easy beside the BTS;
- Support working at 1-4 channels and each channel can be amplified independently;
- Upon power interruption or abnormal output, bypass system will be automatically started to ensure continuous working of BTS;
- RS-232 ports provide links to a notebook for local supervision and to the built-in wireless modem to communicate with the NMS (Network Management System) that can remotely supervise working status of BPB and download operational parameters to BPBs.

APPLICATIONS

- When the territory of subscribers is obviously expanded in remote villages but call traffic is not raised;
- When multiple repeaters are required to fill gaps at the edge of BTS coverage area or to expand coverage for multiple rising traffic hotspots in suburb;
- When BTS coverage needs to expand in an open level area where antenna isolation requirement for repeater can be hardly satisfied.



TECHNICAL SPECIFICATIONS

- Specifications of GSM BTS Power Booster (900MHz, 1800MHz, 1900MHz)

		Specifications
Working Frequency (customizable)		935-960MHz / 1805-1820MHz / 1930-1990MHz
Amplifier Unit	Gain	12±1 dB
	Output Power	52±1 dBm
	In-Band Ripple	≤ 1.2 dB
	Bypass Insertion Loss	≤ 1.2 dB
Phase Distortion		≤ 2° (RMS) & ≤ 5° (Peak)
Whole Equipment	Gain	11±1 dB
	Output Power	51±1 dBm
	In-Band Ripple	≤ 1.8 dB
	Bypass Insertion Loss	≤ 2.5 dB
Voltage Standing Wave Ratio (VSWR)		≤ 1.4
Frequency Error		≤ 0.01ppm
Max. Gain		12±1 dB
Gain Adjustment Range		7±1 dB @ step of 1dB
Spurious Emission		< -36dBm @ 9kHz-1GHz < -30dBm @ 1GHz-12.65GHz
Resistance against Mismatching Load		10:1
Intermodulation Attenuation		≥ 70dBc
Downlink/Uplink Power Detection Level		0-5 V
Envelope Power of Transmitting RF Carrier		Comply to GSM05.05 specifications
Output Modulation Spectrum		Comply to GSM05.05 specifications
Transient Switching Spectrum		Comply to GSM05.05 specifications
I/O Impedance		50Ω
I/O Connector		N-Type (Female)
Temperature Range		-25° C ~ +55° C
Power Supply		DC -48V / AC 220V±15%, 50Hz
Dimensions		1400mm X 600mm X 600mm (Standard 19-inch cabinet)
Weight		55kg
Remote Monitoring/Control via NMS		Supported

- Specifications of CDMA BTS Power Booster (450MHz, 800MHz, 1900MHz)

		Specifications
Working Frequency (customizable)		460-467.5 MHz / 870-880MHz / 1960-1970MHz
Power Amplifier Unit	Gain	12±1 dB
	Output Power	50±2 dBm
	In-Band Ripple	≤ 1.0 dB
	Bypass Insertion Loss	≤ 1.2 dB
Phase Distortion		≤ 2° (RMS) & ≤ 5° (Peak)
Whole Equipment	Gain	11±1 dB
	Output Power	48±1 dBm
	In-Band Ripple	≤ 1.5 dB
	Bypass Insertion Loss	≤ 2.5 dB
Voltage Standing Wave Ratio (VSWR)		≤ 1.4
Frequency Error		≤ 0.01ppm
Max. Gain		12±1 dB
Gain Adjustment Range		7±1 dB @ step of 1dB
Adjacent Channel Power Ratio (ACPR)		≤ -45dBc @ offset=750kHz ≤ -60dBc @ offset=1.98MHz
Spurious Emission		< -36dBm @ 9kHz-1GHz < -30dBm @ 1GHz-12.65GHz
Resistance against Mismatching Load		10:1
Intermodulation Attenuation		≥ 70dBc
Downlink/Uplink Power Detection Level		0-5 V
Envelope Power of Transmitting RF Carrier		Comply to IS-95 specifications
Output Modulation Spectrum		Comply to IS-95 specifications
Transient Switching Spectrum		Comply to IS-95 specifications
I/O Impedance		50Ω
I/O Connector		N-Type (Female)
Temperature Range		-25°C ~ +55°C
Power Supply		DC -48V / AC 220V±15%, 50Hz
Dimensions		1400mm X 600mm X 600mm (Standard 19-inch cabinet)
Weight		55kg
Remote Monitoring/Control via NMS		Supported

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