

Smart Coverage Solution System

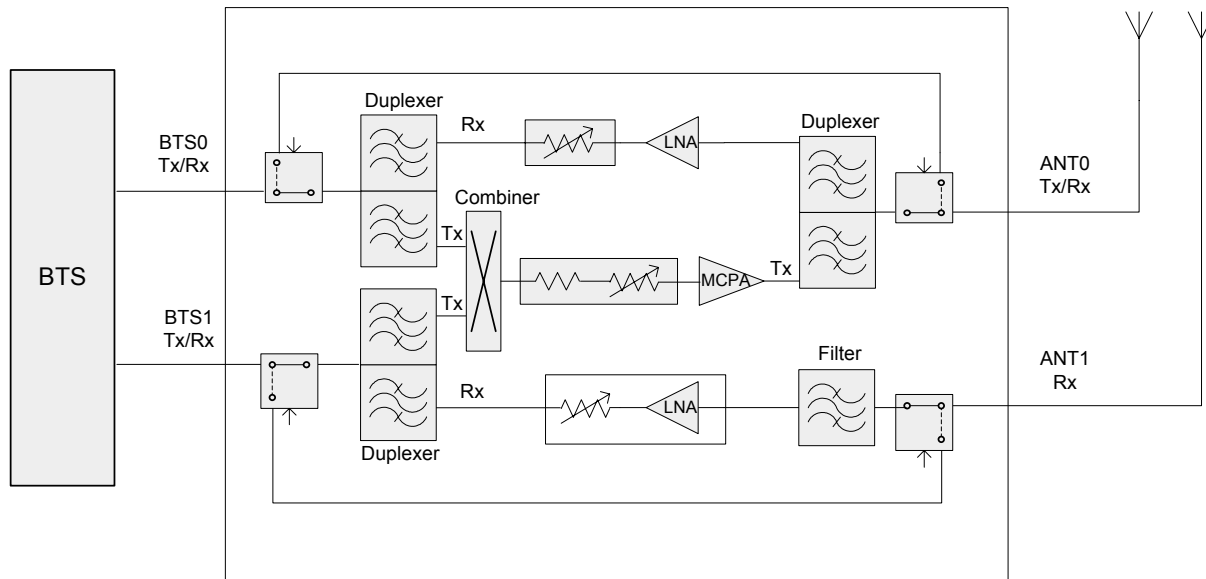
2100MHz Multi-Carrier High Power Booster System

System advantages

Bravo Tech Inc 's newly introduced Multi-Carrier High Power Outdoor Booster platform provides higher downlink EIRP and improved uplink sensitivity at the same time to extend the coverage of existing networks. This multi-carrier based product platform can also work with customized BTS to extend capacity of original WCDMA BTS with a low system total cost. This product platform features:

- Available for Cellular band, GSM band, DCS band, PCS band, and UMTS band
- Support multi-carrier TDMA, GSM/EDGE, CDMA, and WCDMA signals, with mixed mode operation
- Downlink output maximum power 40W, support multi-carrier signal amplifier..
- Support flexible downlink Input either duplexed or unduplexed
- Support system full diversity
- Downlink and uplink gain adjustable with wide dynamic range
- Wide uplink input dynamic range
- 2.0dB uplink noise figure
- Very high system efficiency
- Extensive product monitoring and control (local and remote)
- Centralized system control/alarms
- Great system reliability supported by architecture built-in redundancy (optional)
- Models available to operate with 220VAC, 110VAC or -48VDC input voltage
- IP65 environmental protection. Designed for indoor or outdoor installations.
- Extensive protection for lightning, voltage surge, and any high failure rate assemblies
- Compact system size and light weight

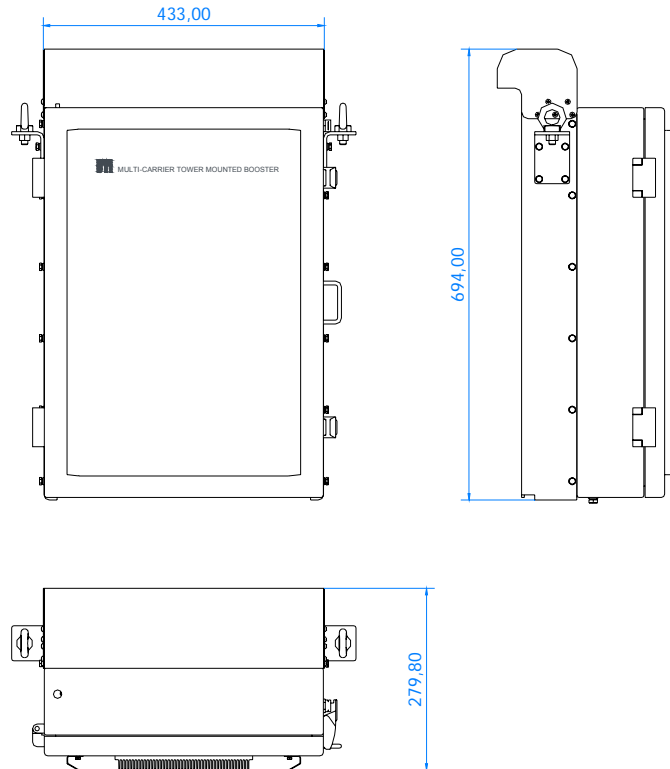
System Block Diagram



Product Picture



Outline Drawing



Specifications

RX Characteristics	Specification
Frequency Range	1920-1980MHz
Instantaneous Bandwidth	60MHz
Max Gain over frequency and temperature	15±1 dB
Adjustable Gain Range	0~15dB
Flatness over Frequency	≤±1dB
Noise Figure	≤2.0dB, typical
Output 1dB Compression (max. Gain)	+12dBm
Output IP3 (max. Gain)	+25dBm
Return loss(VSWR)	18dB active(1.29:1) 14dB bypass(1.5:1)
RX to TX Rejection	>80dB

TX Characteristics	Specification
Frequency Range	2110-2170MHz
Instantaneous Bandwidth	60MHz
Number of Carriers	4 or 8 carriers
Output Power	40W
Maximum Input Power	43dBm
Gain	0 - 15dB, Adjustable in 1dB step
Gain Flatness	+/-1dB

Gain Variation Over Temp	+/-1dB
Spectrum Masks and Spurious Emissions	Meeting WCDMA 3GPP requirements

System Characteristics	Specification
Return loss(VSWR)	
BTS Ports	14dB (1.5:1)
Antenna Ports	14dB (1.5:1)
Bypass Insert Loss	<0.5dB
Monitor & Control (LCD and Keypad)	Forward Power, Temp, LNA Conditions (for both), PA Conditions, TX Gain Setting, RX Gain Setting, DC Voltage
Alarm & Protection (Form C type)	Overpower Shutdown, Over Temp Shutdown, Over VSWR Shutdown, Device Shutdown

Environmental Characteristics	Specification
Operating Temperature Range	-20°C to +55°C
Cold Start Temperature	-40°C
Storage Temperature	-40°C to +85°C
Waterproof	IP65 (Except Fans)
Humidity	5%~95%
EMC	ETS 300 342-3

Mechanical Characteristics	Specification
Material	Steel& Aluminum Frame
Weight	50Kg
Dimensions (H x W x D)	694mm x 433mm x 280mm
Connectors	
BTS Ports	7/16 DIN female
ANT Ports	7/16 DIN female
Fan	4 Fans, support outdoor working

Reliability Characteristics	Specification
MTBF	
MCPA	100,000 hours
Rectifier	70,000 hours
Fan	50,000 hours
Other Parts	150,000 hours

Options	Specification
Centralized Display	High Definition LCD
Power Input	220VAC, 110VAC, -48VDC