

Smart Coverage Solution System

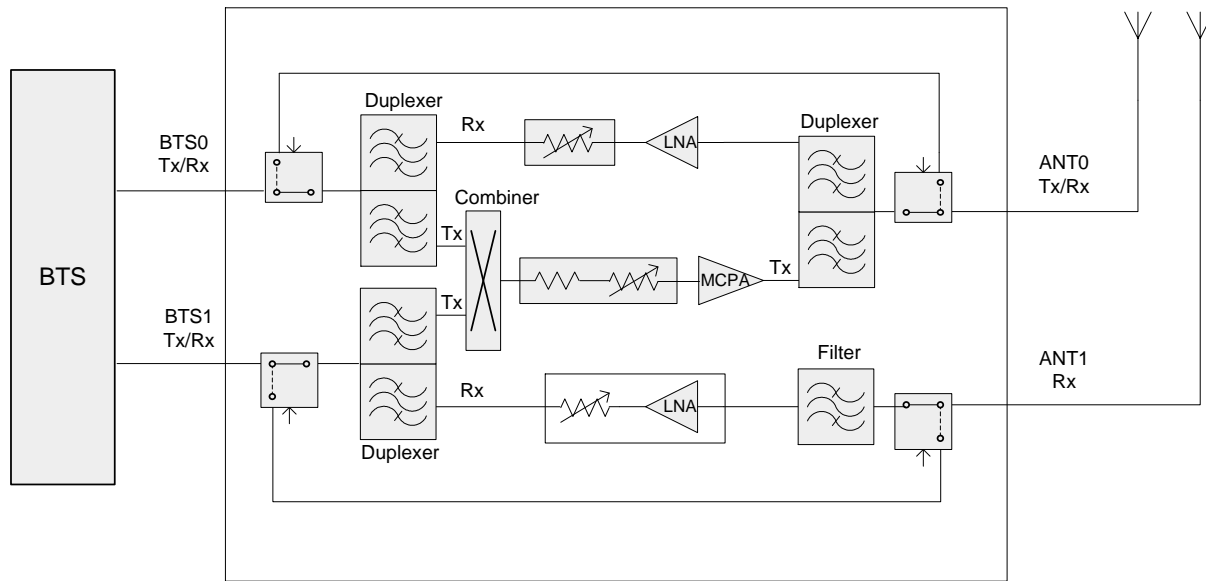
1800MHz Multi-Carrier Tower Mounted Booster (TMB)

System advantages

Bravo Tech Inc 's newly introduced Multi-Carrier High Power TMB 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 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 200W, 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)
- Powered by 220VAC
- IP54 environmental protection. Designed for outdoor installations.
- Extensive protection for lightning, voltage surge, and any high failure rate assemblies
- Compact system size and light weight

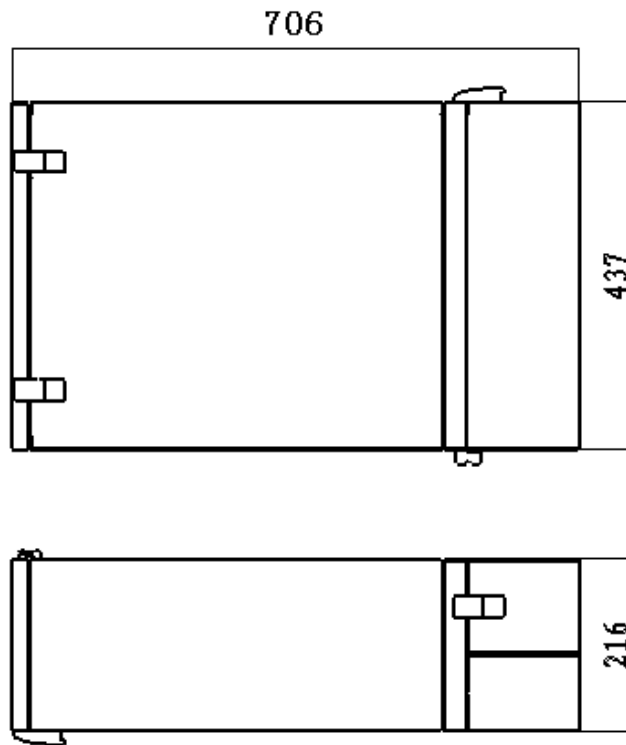
System Block Diagram



Product Picture



Outline Drawing



Specifications

RX Characteristics	Specification
Frequency Range	1710 – 1785MHz
Bandwidth	75MHz
Max Gain over frequency and temperature	12±1 dB
Adjustable Gain Range	0~12dB
Flatness over Frequency	≤±1dB
Noise Figure	≤1.6dB, typical
Output 1dB Compression (max. Gain)	+12dBm
Output IP3 (max. Gain)	+23dBm

TX Characteristics	Specification
Frequency Range	1805 – 1880MHz
Bandwidth	75MHz
Number of Carriers	4 or 8 carriers
Average Output Power	200W
Maximum Input Power	46dBm
Gain	0 - 15dB, Adjustable in 1dB step
Gain Flatness	+/-1dB
Gain Variation Over Temp	+/-1dB
Spectrum Masks and Spurious Emissions	FCC compliant

System Characteristics	Specification
VSWR	
BTS Ports	1.5:1
Antenna Ports	1.5:1
Insertion Loss (Bypass mode)	≤0.5dB
Monitor & Control	Forward Power, Temp, LNA Conditions, PA Conditions, TX Gain Setting, RX Gain Setting
Alarm & Protection	Overpower Shutdown, Over Temp Shutdown, Over VSWR Shutdown
Power Supply	110-240VAC
Average Power Consumption	850W
Impedance	50Ω
Environmental Characteristics	Specification
Operating Temperature Range	-20°C to +60°C
Cold Start Temperature	-40°C
Storage Temperature	-40°C to +85°C
Humidity	5% ~ 95%
EMC	ETS 300 342-3
Ingress Protection Class	IP54
Mechanical Characteristics	Specification
Material	Steel& Aluminum Frame
Weight	52Kg
Dimensions (H x W x D)	706mm x 216mm x 437mm
Connectors	
BTS Ports	7/16 DIN female
ANT Ports	7/16 DIN female
ALARM Port	Circular Pull-push male, 19PIN
Reliability Characteristics	Specification
MTBF	
MCPA	100,000 hours
Rectifier	70,000 hours
Fan	50,000 hours
Other Parts	150,000 hours