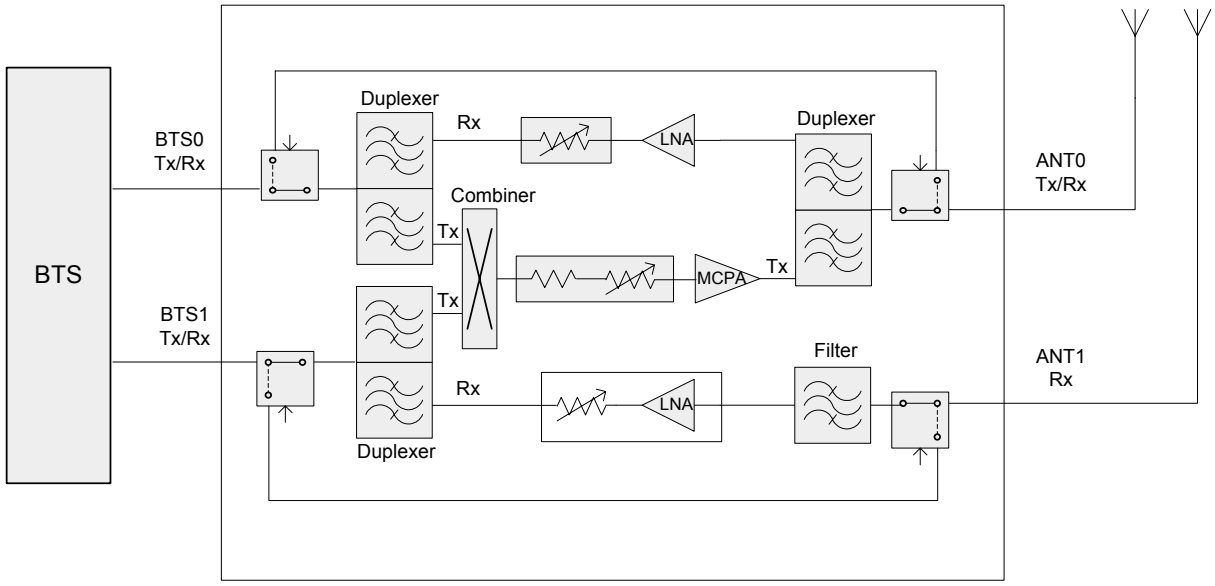
Smart Coverage Solution System
1900MHz Multi-Carrier High Power Outdoor Booster System

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 BTS with a low system total cost. This product platform features:

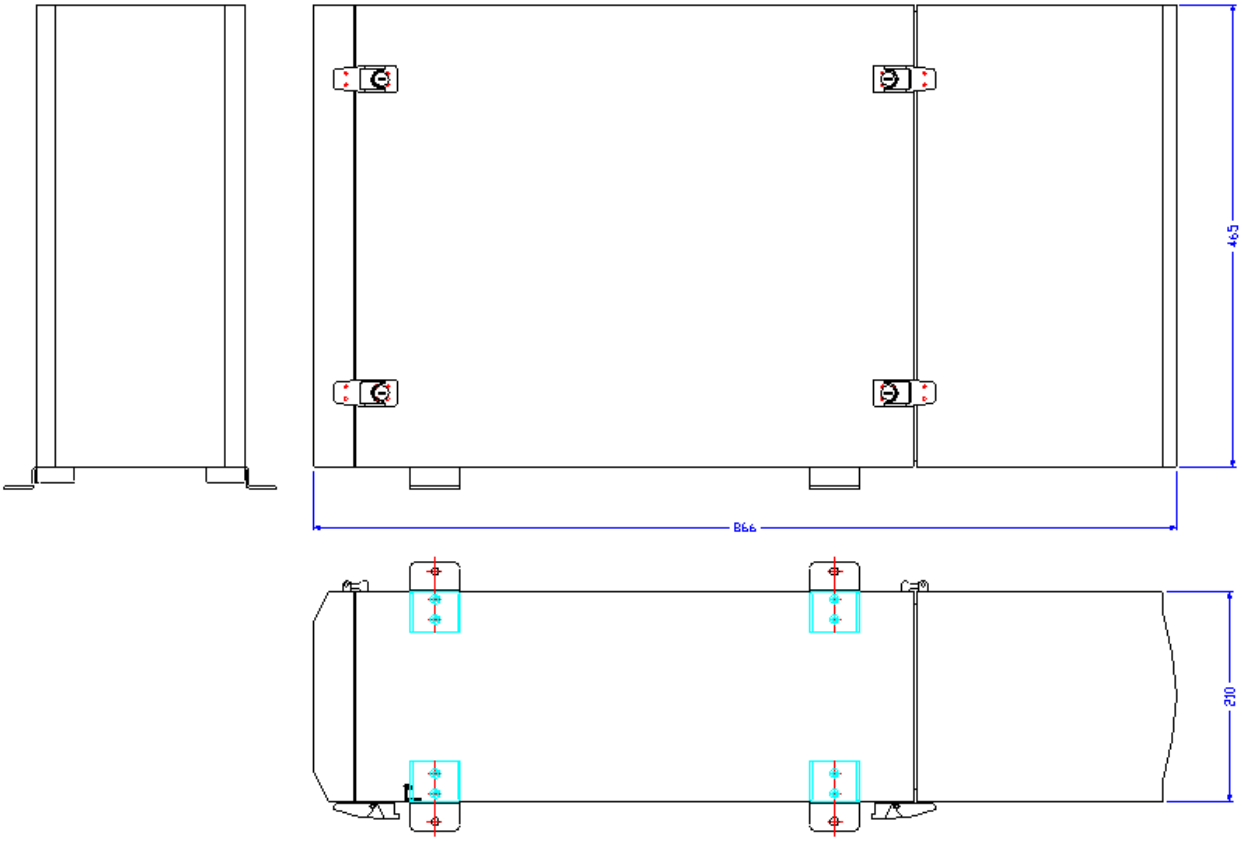
- Available for Cellular band, GSM band, DCS band, PCS band, and UMTS band
- Support multi-carrier TDMA, GSM/EDGE, CDMA, and WCDMA signals, with mixed mode operation
- Downlink output maximum power 80W, support multi-carrier signal amplifier.
- Support flexible downlink Input either duplexed or unduplexed
- 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
- IP54 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	1850 – 1910MHz
Instantaneous Bandwidth	60MHz
Max Gain over frequency and temperature	12±1 dB
Adjustable Gain Range	0~12dB
Flatness over Frequency	≤±1dB
Noise Figure	≤2.0dB, typical
Output 1dB Compression (max. Gain)	+12dBm
Output IP3 (max. Gain)	+23dBm
Return loss(VSWR)	14dB (1.5:1)

TX Characteristics	Specification
Frequency Range	1930 – 1990MHz
Instantaneous Bandwidth	60MHz
Number of Carriers	4 or 8 carriers
Average Output Power	120W
Maximum Input Power	46dBm
Gain	0 - 15dB, Adjustable in 1dB step
Gain Flatness	+/-1dB
Gain Variation Over Temp	+/-1dB
IMD	-65dBc for multi-carrier (typical)
Spectrum Masks and Spurious Emissions	FCC compliant

System Characteristics	Specification
Return loss(VSWR)	
BTS Ports	14dB (1.5:1)
Antenna Ports	14dB (1.5:1)
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
Humidity	5%～95%
EMC	ETS 300 342-3
Ingress Protection Class	IP54
Mechanical Characteristics	**Specification**
Material	Steel& Aluminum Frame
Weight	48Kg
Dimensions（H x W x D）	210mm x 465mm x 866mm
Connectors	
BTS Ports	7/16 DIN female
ANT Ports	7/16 DIN female
ALARM Port	DB15 female
Reliability Characteristics	**Specification**
MTBF	
MCPA	100,000 hours
Rectifier	70,000 hours
Fan	50,000 hours
Other Parts	150,000 hours
Options	**Specification**
Power Input	220VAC, 110VAC, -48VDC available