



TETRA / UHF Digital Channel Selective BDA

CSG 9380-BDA-90-40DX

CSG UHF / TETRA BDA is designed to provide a more cost-effective solution for indoor coverage of signal enhancement to provide reliable connectivity with radio users (Portable).

The BDA works as repeater between the Base station and mobiles. It receives the low-power signal from Base station via the Donor Antenna or through Transmission line, it further amplifies the signal and then retransmits it via the Service antenna to the weak/blind spots. On the reverse path signals from mobile radios are amplified and retransmitted to the Base station.

The Channel-selective function can amplify signals selected by channel selector in the customized band



Features

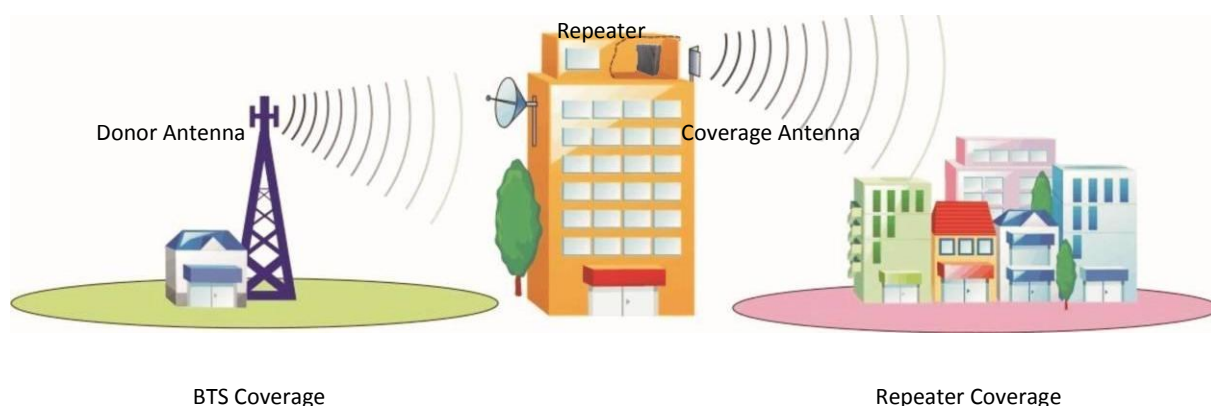
- DSP module supports selection up to 8 channels
- No interference to BTS by adopting linear amplifier with high gain and low noise
- Adopting filter with highly selectivity and low insertion loss eliminates interference between uplink and downlink
- Aluminum-alloy casing with IP65 protection has high resistance to dust, water and corroding
- USB port provides a link to a notebook for local supervision or to the built-in GSM wireless modem to communicate with the NMS (Network Management System) that can remotely supervise BDA's working status and download operational parameters to the BDA

Applications

To expand signal coverage or enhance signal blind area where TETRA signal is weak or unavailable.

- Public Safety
- Transportation
- Utilities
- Government
- Military
- PAMR
- Commercial & Industry
- Oil & Gas

Application Diagram



Technical Specifications

Items	Specifications	
	Uplink	Downlink
Frequency Range(Customized)	385~390 MHz	395 ~ 400 MHz
Maximum Output Power(Customized)	30dBm	40dBm(20W)
Maximum Gain	90dB±2dB	90dB±2dB
Number of Channels	Up to 8 channel filters(Downlink and Uplink)	
Channel Frequency	Any TETRA channel, options 25kHz(high selectivity),90kHz(low delay)	
In-band flatness	≤3dB	
Auto Level Control (ALC)	Time slot based per channel	
Noise Figure	≤ 5dB	
Gain Adjustment Range	1~31 dB @ step of 1 dB	
VSWR	≤1.5	
Frequency error	≤0.5 ppm	
Squelch	On request	
System Delay	≤12 us(18 us high selectivity)	
Spurious Emission	≤-36dBm	
Third-order Inter-Modulation	≤ -45dBc	
Output/input resistance	50 Ω	
RF Connector	N-Female	
Working temperature	-25°C ~+55°C	
Relative humidity	5~95% RH	
Power Supply (customized)	AC220V,50Hz	
Dimensions	328mm X 428mm X 220mm	
Weight	30kg	
Backup Power Supply (optional)	4 hours	

Application

Indoor or Outdoor(IP65)

NMS Monitoring Parameters (optional)

UL/DL Power, UL/DL Max Gain, RSSI, ATT, Channel No, UL/DL Output ALC, Power alarm Threshold, UL/DL PA Temperature etc

NMS Controlled Parameters (optional)

Channel No., ATT, Output Power Thresholds UL/DL, UL/DL Output ALC , PA Switch ,Alarm Report can be enable /disable etc

TETRA CHANNEL SELECTIVE REPEATER CSG 9380-BDA85-37X

The TETRA BDA / Repeater is designed to provide a more cost-effective solution than adding a new Base Transceiver Station (BTS) to improve signal coverage and communication quality in Radio Communication systems.

The repeater works as a relay between the BTS and mobiles / handhelds. It receives low power signal from BTS via the Donor Antenna, linearly amplifies the signal and then retransmits it via the Service Antennas to the weak / blind coverage area. In the return path the mobile signal is also amplified and retransmitted to the BTS via the opposite direction.

The Channel selective function can amplify signals selected by channel selector in the customized band.



Features

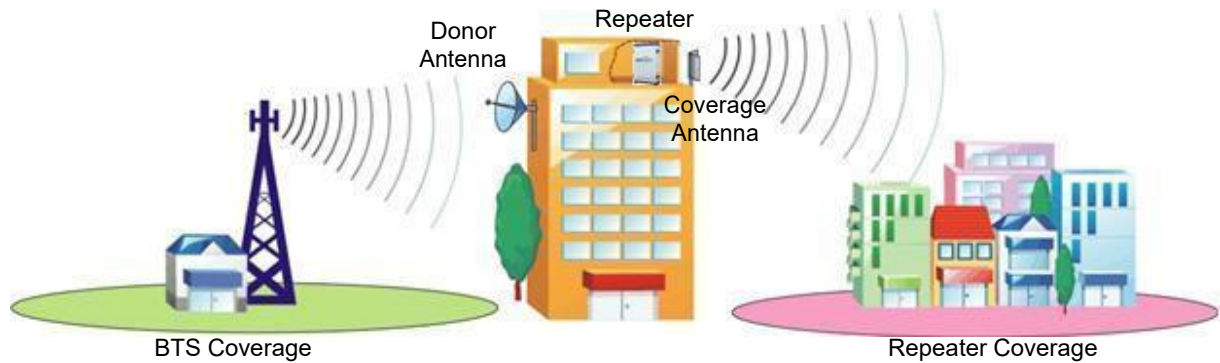
- Aluminum cabinet with IP65 protection has high resistance to dust, water and corroding
- No interference to BTS by adopting linear amplifier with high gain and low noise
- Adopting filter and channel selector with highly selectivity and low insertion loss eliminates interference between uplink and downlink
- USB port provides a link to a notebook for local supervision or to the built-in wireless modem to communicate with the NMS (Network Management System) that can remotely supervise repeater's working status and download operational parameters to the repeater

Applications

To expand signal coverage or enhance signal blind area where TETRA signal is weak or unavailable.

- Public Safety
- Transportation
- Utilities
- Government
- Military
- PAMR
- Hotels, Universities and Industries
- Oil & Gas

Application Diagram



Technical Specifications

Parameters		Specifications	
Frequency Range(Customized)	Uplink		Downlink
	385 ~ 390 MHz		395 ~ 400 MHz
Maximum Output Power(Customized)	30 / 33 dBm		37 / 40 / 43 dBm
Maximum Gain	85 dB		85 dB
Channel No.(SAW filter for DL) (Customized)	2/4/6/8		
In-band flatness	≤3dB		
Auto Level Control (ALC)	≤2dB		
Noise Figure	≤ 5dB		
Gain Adjustment Range	1~31 dB @ step of 1 dB		
VSWR	≤1.5		
Phase P-P error	≤20		
RMS phase error	≤5		
System Delay	≤5.0 us		
Spurious Emission	In-Band	≤-22dBm/30KHz	
	Out-Band	9KHz-1GHz	≤-36dBm/30KHz
		1GHz	≤-30dBm/30KHz
Third-order Inter-Modulation	In-Band	≤ -45dBc / 30kHz	≤ -40dBc / 30kHz
Third-order Inter-Modulation	Out-Band	9KHz~1GHz:	≤-36dBm/30KHz
		1GHz~12.75GHz:	≤-36dBm/30KHz
Output/input resistance	50 Ω		
RF Connector	N-Type (Female)		
Working temperature	-25°C ~+55°C		
Relative humidity	5~95% RH		
Power Supply (customized)	AC220V,50Hz		
Dimensions	640mm X 400mm X 230mm		

Weight	35kg
Backup Power Supply (optional)	4 hours
Application	Indoor or Outdoor (IP65)
NMS Monitoring Parameters (optional)	UL/DL Power, UL/DL Max Gain, RSSI, ATT, Channel No, UL/DL Output ALC, Power alarm Threshold, UL/DL PA Temperature etc
NMS Controlled Parameters (optional)	Channel No., ATT, Output Power Thresholds UL/DL, UL/DL Output ALC , PA Switch ,Alarm Report can be enable /disable etc