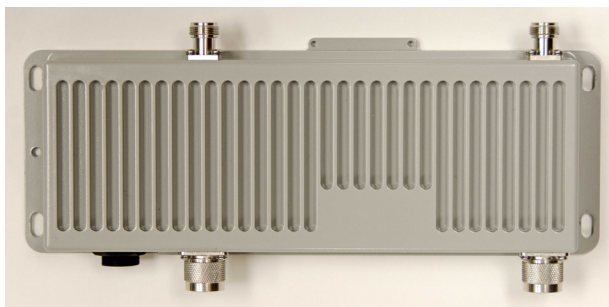


UMTS MetroCell Amplifier 850 Band

▶ Model SCB-850-1W-ALU-OD-1

General Information



CCI's MetroCell Amplifier improves the performance of low power Small Cells by increasing the output power and receive sensitivity of the Metro-Cell. CCI's MetroCell Amplifier increases the overall coverage area

while improving the carrier-to-noise ratio and throughput performance. This unit matches the design of the ALU MetroCell to increase its acceptability in challenging urban environments. It mounts directly to the MetroCell and is suitable for indoor or outdoor locations.

**Designed for ALU
9364 Outdoor
MetroCell**

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Technical Description

This MetroCell Amplifier is designed with a very simple interface specifically designed to work with the ALU 9364 MetroCell without the need for retrofitting the original equipment. It mounts directly to the MetroCell without any additional cables or connectors. The MetroCell Amplifier is designed for compatibility with the latest UMTS and HSPA+ standard and is guaranteed to maintain the integrity of the UMTS signal upon amplification. State-of-the-art linearization circuitry in conjunction with LDMOS power amplifier devices are utilized in the transmit path of the amplifier. Monolithic Gallium-Arsenide technology is implemented for low-noise receive amplification of the Rx carrier. Internal filtering provides adequate rejection and low system group delay to minimize the Bit-Error-Rate (BER) of digital transmissions. A unique coupler architecture is utilized to insure that the 'RF Sniffing' functionality of the MetroCell is preserved when detecting neighboring cells.

The standard unit is designed to operate from a standard 48 VDC source, or from a 48VDC POE source and has one Tx/Rx input and one Rx input from the MetroCell. The MetroCell Amplifier has two outputs, each going to individual antenna ports.

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MetroCell Amplifier Electrical & Mechanical Specification

Description	Preliminary Specifications	
Electrical Specifications	Uplink	Downlink
Operating Frequency Range	824-849 MHz	869-894 MHz
System Gain	10 dB	6 dB
System Noise Figure	2.5 dB Typical	10 dB Typical
System Group Delay	180 nSecs Max.	180 nSecs Max.
Pass-Band Ripple	+/- 0.5 dB Max.	+/- 0.5 dB Max.
Output Third Order Intercept Point	+27 dBm Min.	+46 dBm Min.
Rated UMTS/WCDMA Output Power	+10 dBm Max.	+30 dBm (1W) Max.
Input/Output VSWR	1.5:1 Max.	1.5:1 Max.
Uplink/ Downlink Isolation	55 dB	
Operating Voltage/ Current	48 VDC / 0.5A max	
Mechanical Specifications		
Dimensions (Amplifier Only)	10.80" (W) x 4.150 (H) x 1.875" (D) (274.32 (W) x 105.41 (H) x 47.63 (D) mm)	
Dimensions (Including Amplifier Bracket)	11.750" (W) x 4.150 (H) x 1.875" (D) (298.45 (W) x 105.41 (H) x 47.63 (D) mm)	
Enclosure	Aluminum Housing, Wall/Rack Mount	
Connectors	N-Male x 2, N-Female x 2, POE x 1	
Weight	2.2 lbs. (1.0 kg) Max	
Environmental Specifications		
Operating Temperature	-35° C to +50° C (Cold start at -35° C, meets all specs at -25° C)	
MTBF	500,000 Hours Minimum	
Enclosure	IP65 (Unit Body), IP68 (Connector)	
Operating Relative Humidity	0% to 99%	
Operating Altitude	Up to 13,000 FT	

All specifications are subject to change. The latest specifications are available at www.cciproducts.com

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7/30/2014

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Revision 1.0

89 Leuning Street
South Hackensack, NJ 07606

Ordering Information:

- Model: SCB-850-1W-ALU-OD-1
FCC ID: NT3SCB8501WA

Options:

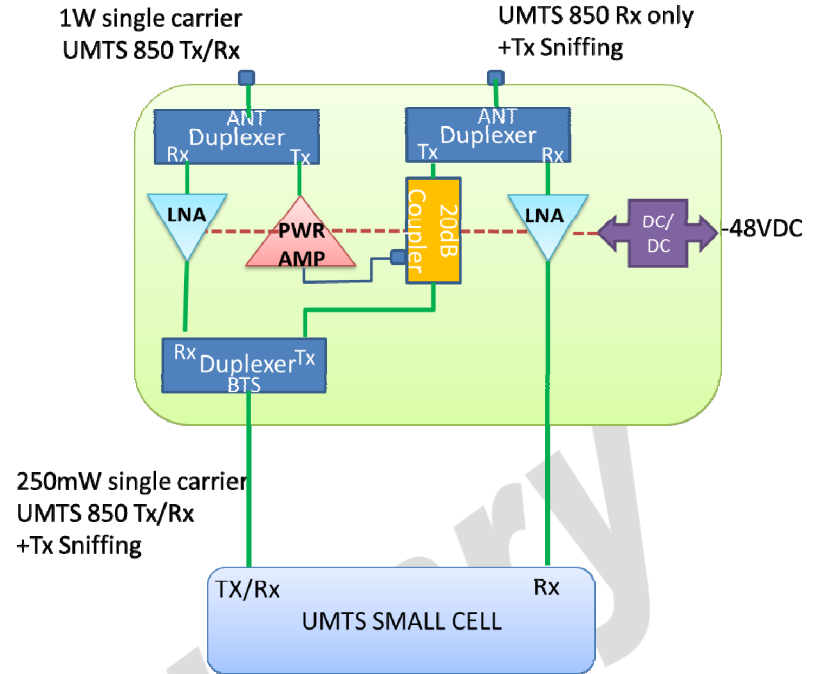
- Optional Mounting Bracket for Mounting SCB-850-1W-ALU-OD-1 and ALU 9364 Outdoor MetroCell together on a Mast (Model # SCB-850-ALU-MBK-01)
- Optional GPS Antenna w/2 foot Cable recommended for Clearance of the Booster Amplifier (Model # ANT-3914D-GPS-2FT-SMA)

Accessories:

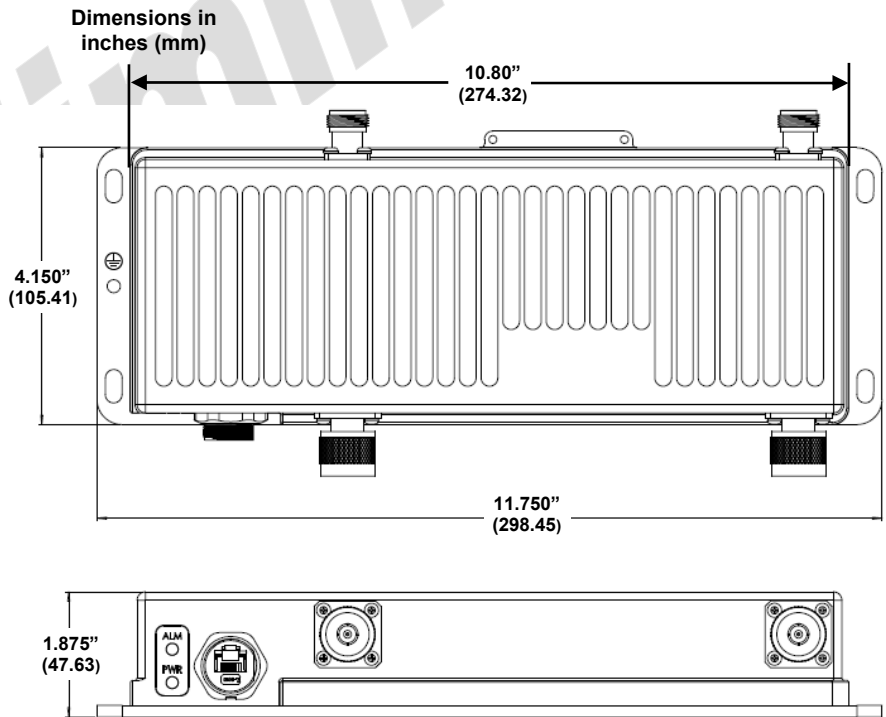
Example: SCB-850-1W-ALU-OD-1 Mounted on an Alcatel-Lucent 9364 Outdoor MetroCell



MetroCell Amplifier Block Diagram



MetroCell Amplifier Outline Drawing



RJ-45 Pin #	POE (Power Over Ethernet) Description	T568 B Wire Color	RJ-45 Pin #	POE (Power Over Ethernet) Description	T568B Wire Color
	10/100 DC on Spares (mode B)			10/100 DC on Spares (mode B)	
1	RX+	Orange/White	5	DC+	Blue/White
2	Rx-	Solid Orange	6	Tx-	Solid Green
3	Tx+	Green/White	7	DC-	Brown/White
4	DC+	Solid Blue	8	DC-	Solid Brown

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