

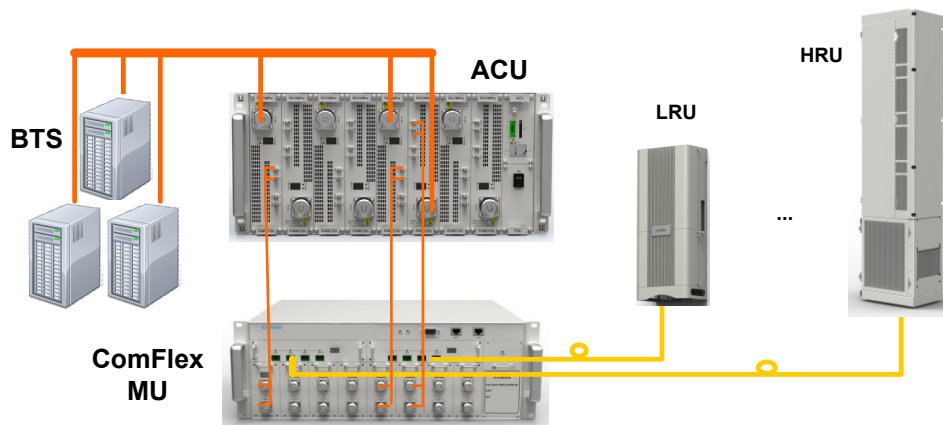
# Active Conditioning Unit / IPOI

## Features

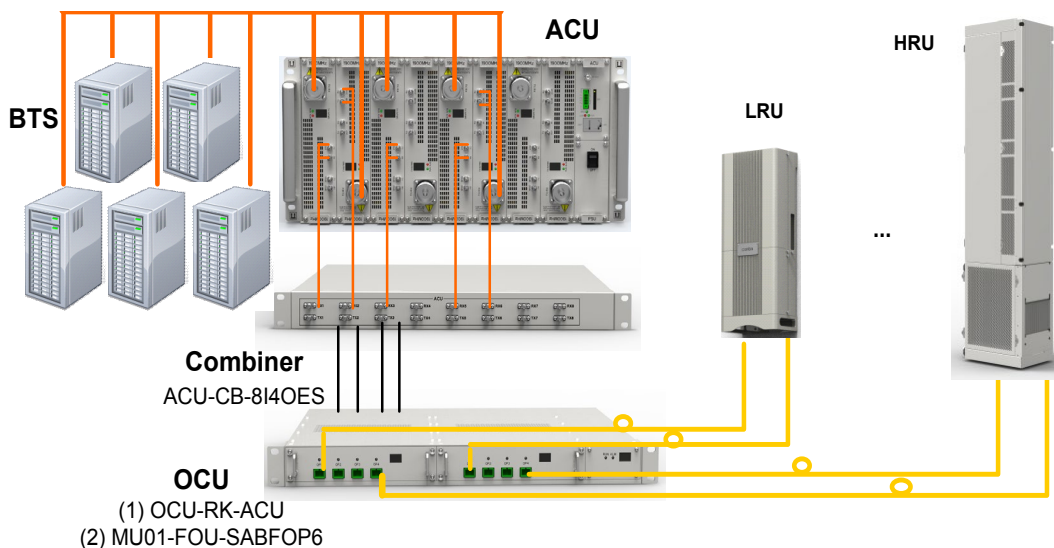
- Low PIM ( $\leq -163\text{dBc}$ )
- Up to 8 RF modules for each chassis
- Up to 32 sources by 4 ACUs, cascaded
- Duplex input from BTS / Simplex output
- DL input power from 5W-100W
- Each RFU has built-in internal signal source
- Web-based GUI
- Active ATT, input power detection and ALC protection for each RF module



## Functional Block Diagram



**Application Example 1 – Standalone DAS Tray, IPOI for any OEM DAS**



**Application Example 2 – DAS Tray, IPOI for Comba DAS**

## Specifications

Supported Bands & Technologies			
Bands	Technologies	Frequency Range (MHz)	
		Downlink (DL)	Uplink (UL)
700MHz (Upper C)	LTE	746-757	776-787
700MHz (Lower ABC)	LTE	728-746	698-716
800MHz (ESMR)	CDMA/LTE	862-869	817-824
850MHz	GSM/CDMA/WCDMA/LTE	869-894	824-849
1900MHz	GSM/CDMA/WCDMA/LTE	1930-1995	1850-1915
AWS 1+3	WCDMA/LTE	2110-2180	1710-1780

Electrical			
Max. Downlink Input Power	dBm	50	
Insert Loss	Downlink	-18	
	Uplink	-30	
UL ATT Adjustable Range (1dB step)	dB	LNA on	LNA off
DL ATT Adjustable Range (1dB step)	dB	0-70	0-50
PIM (43dBm x 2)	dBc	163	
Ripple	dB	2	
TX/RX Isolation	dB	≥80	
CW Tone	dBm	-21 ~ +17 (TX Output Port, CW, Step@100KHz)	
Return Loss	dB	TX/RX: ≤ -20; TX, RX: ≤ -15	

Mechanical			
Dimensions, H x W x D	in(mm)	8.7" x 19" x 17.7" (220 x 482.5 x 450)	
Weight (approx.)	Rack	2.6 (1.2)	
	RFU	11 (5)	
	PSU	4.4 (2)	
	MCU	4 (1.8)	
Power Supply	VAC	100-240	
	VDC	-48	
Power Consumption (approx.)	W	180 (with 8 RFUs)	
RF Connectors		TX/RX: 4.3-10 Female, TX, RX: QMA	
Operating Temperature	°C	0 to +45	
Operating Humidity		≤ 85%	
Ingress Protection		IP30	
Enclosure Cooling		Fan	
Installation Type		19" Rack	

## Ordering Information

	<b>P/N</b>	<b>Description</b>
ACU Components	ACU-RK-A	ACU Rack, supports 8 RFUs, 1 PSU and 1 MCU
ACU Components	ACU-PS-A92W300	ACU Power Supply Unit, 100-240VAC, 300W
ACU Components	ACU-PS-A48W300	ACU Power Supply Unit, -48VDC, 300W
ACU Components	ACU-MC-MM20S	ACU Controller Unit (For Non Comba DAS Headend)
ACU Components	ACU-MC-MM20	ACU Master Controller Unit, Work with OCU
ACU Components	ACU-MC-S	ACU Slave Controller Unit, Work with OCU
ACU RF Units	ACU-RF-19B65P50DED	Radio Frequency Unit 1900, PIM -160dBc
ACU RF Units	ACU-RF-7LB18P50DED	Radio Frequency Unit 700 LowerABC, PIM -160dBc
ACU RF Units	ACU-RF-7UB11P50DED	Radio Frequency Unit 700 UpperC, PIM -160dBc
ACU RF Units	ACU-RF-8SB07P50DED	Radio Frequency Unit 800 ESMR, PIM -160dBc
ACU RF Units	ACU-RF-85B25P50DED	Radio Frequency Unit 850, PIM -160dBc
ACU RF Units	ACU-RF-20B70P50DED	Radio Frequency Unit EAWS, PIM -160dBc