

High Power

All-Digital Transport System | IP & Cellular | 43dBm per Band



Access Unit



Expansion Unit

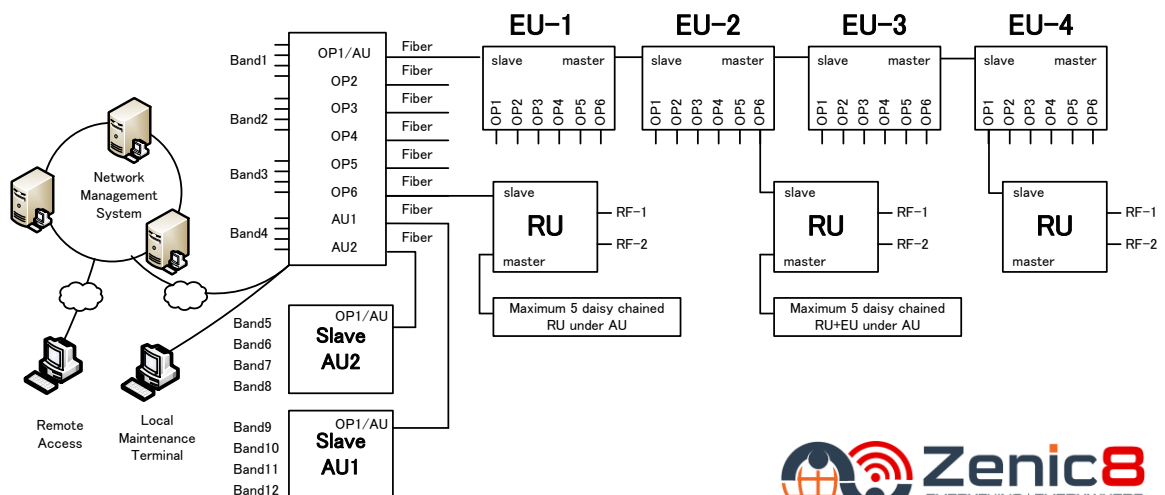


Dual Band Remote Unit

Features

- Active Distributed Antenna System
- Remote Radio Head Technology
- Wireless Technologies in SISO and MIMO configurations
- Highly Efficient PA Performance (DPD & CFR features)
- WiFi and Gigabit Ethernet Connectivity
- Up to 12 discrete bands in a single platform
- 43dBm Output Power per Band
- Integrated NMS on all system elements

Block Diagram



SYSTEM SPECIFICATION	
Maximum RF Bands per AU	4
Maximum RF Bands per System	10 (1 x AU port), 12 (2 x AU ports)
Maximum AU per System	3 (1 x Master / 2 x Slaves)
Maximum EU per Master AU	6
Maximum EU cascaded to EU	4
Maximum RU per EU (No cascaded RUs)	6
Maximum RU cascaded to RU (RU connected to AU)	5
Bandwidth per Band (Downlink or Uplink)	≤60MHz (Contiguous)
Bandwidth per System (Downlink or Uplink)	≤200MHz (per Fibre)
Frequency Range (Non Contiguous)	700MHz - 2700MHz
MIMO	2x2
IP Transmission Rate	≤1Gbps (100Mbps standard)
Maximum IP Connections per EU	6
Maximum IP Connections per RU	1
Maximum CPRI Connections per AU	2 (via Slave AU ports)

MECHANICAL SPECIFICATION	
Antenna Interface	4.3-10 Female
AU RF Interface	SMA Female
Optical Connector Type	SFP+, Standard LC (Simplex or Duplex)
Optical Transmission Rate	9.8304 Gbps
Optical Fiber Length	1.4km / 10km / 40km 0.87mi / 6.21mi / 24.86mi
Physical Alarms	DB9, Female (4x in, 4x out)
Maintenance Interface	Ethernet RJ45 / WiFi / USB
Maintenance Interface Reset	Software Reset

ELECTRICAL SPECIFICATION					
Electromagnetic Compatibility/Interference (EMC/EMI)	3GPP TS36.113 3GPP TS25.113				
Maximum Power Consumption (AU/EU/RU)	80W/50W/250W				
AC Power	100-240vAC, 50/60Hz -48vDC				
Forward Path (Downlink)					
Output Power per Carrier	No. of Carriers	1	2	4	8
	UMTS (dBm)	43	37	34	31
	E-UTRA (dBm)	43	37	32	29
Output Power Accuracy	±2dB				
Maximum Gain	43dB				
Maximum Input Power	+15dBm				
System Delay (1AU+1EU+1RU)	<18μS				
Reverse Path (Uplink)					
Maximum Output Power per Band	-7dBm				
Output Power Accuracy	±2dB				
Maximum Gain	43dB				
Dynamic Range (GSM/DCS)	-35dBm to -110dBm (-35dBm to -105dBm)				
Maximum Input Power	-35dBm				
System Delay (1AU+1EU+1RU)	<12μS				
Noise Figure	<6dB at maximum gain				

ENVIRONMENTAL SPECIFICATION	
Mean Time between Failure	>100,000 hours
Operating Temperature (AU/EU)	-10°C to +45°C/14°F to +113°F
Operating Temperature (RU)	-40°C to +50°C/-40°F to +122°F
Storage Temperature	-40°C to +70°C/-40°F to +158°F
Humidity	5% to 85% (Non-Condensing)
Cooling	Natural (No Fans)
Installation (AU/EU)	Wall or 19" Rack
Installation (RU)	Wall or Pole
Ingress Protection Ratings (AU/EU)	IP30 (Indoor)
Ingress Protection Ratings (RU)	IP65 (Outdoor)

ELEMENT MANAGEMENT	
Embedded Management	Yes (Web Based)
SNMP Based Management	Yes

DIMENSIONS / WEIGHT	
AU (Width / Height / Depth / Weight)	440mm / 44mm / 329mm / <8.0kg 17.32in / 1.73in / 12.95in / < 17.64lb
EU (Width / Height / Depth / Weight)	440mm / 44mm / 220mm / <5.0kg 17.32in / 1.73in / 8.66in / < 11.02lb
RU (Width / Height / Depth / Weight)	440mm / 125mm / 330mm / <16.0kg 17.32in / 4.92in / 12.99in / < 35.27lb

DOCUMENT CONTROL			
Issue	Date	Author	Remarks
1	2014-07-22	Chu	V1.0.1 Draft
2	2014-08-20	Chu	Forward Path Output Power Accuracy change to ±2dB
3	2014-11-26	Chu	4.3-10 connector, RU height, MIMO 4x4 deleted
4	2014-12-2	Chu	System delay changed to 12us, DL output power
5	2014-12-23	Layla Wu/Allen Chu	New format, change images and max in/out range
6	2015-01-05	Layla Wu	Update Power per Carrier

Ordering Information

Access Unit Chassis	
AU-4-AC	Access Unit Chassis, Supports up to 4 Discrete Bands.
Access Unit Modules - Four Duplex Input Ports	
AU-AC M700L	Access Unit Module, 4 Way Active Combiner Lower 700MHz (698-716/728-746)
AU-AC M700U	Access Unit Module, 4 Way Active Combiner Upper 700MHz (776-806/746-776)
AU-AC M700APT	Access Unit Module, 4 Way Active Combiner APT 700MHz (703-748/758-803)
AU-AC M800	Access Unit Module, 4 Way Active Combiner 800MHz (832-862/791-821)
AU-AC M850	Access Unit Module, 4 Way Active Combiner 850MHz (824-849/869-894)
AU-AC M900	Access Unit Module, 4 Way Active Combiner 900MHz (880-915/925-960)
AU-AC M1700	Access Unit Module, 4 Way Active Combiner 1700MHz (1710-1755/2110-2155)
AU-AC M1800	Access Unit Module, 4 Way Active Combiner 1800MHz (1710-1785/1805-1880)
AU-AC M1900	Access Unit Module, 4 Way Active Combiner 1900MHz (1850-1910/1930-1990)
AU-AC M2100	Access Unit Module, 4 Way Active Combiner 2100MHz (1920-1980/2110-2170)
AU-AC M2300L	Access Unit Module, 4 Way Active Combiner Lower 2300MHz (2300-2360)
AU-AC M2300U	Access Unit Module, 4 Way Active Combiner Upper 2300MHz (2360-2400)
AU-AC M2600	Access Unit Module, 4 Way Active Combiner 2600MHz (2500-2580/2620-2600)
High Power Remote Unit - Outdoor	
HPRU-OD-2-AC	Outdoor High Power Remote Unit, Supports up to 2 Discrete Bands
HPRU-OD-M700L	Outdoor High Power Remote Unit Module, Higher 700MHz FDD/TDD (698-716/728-746)
HPRU-OD-M700U	Outdoor High Power Remote Unit Module, Upper 700MHz FDD/TDD (776-806/746-776)
HPRU-OD-M700APT	Outdoor High Power Remote Unit Module, APT 700MHz FDD/TDD (703-748/758-803)
HPRU-OD-M800	Outdoor High Power Remote Unit Module, 800MHz FDD/TDD (832-862/791-821)
HPRU-OD-M850	Outdoor High Power Remote Unit Module, 850MHz FDD/TDD (824-849/869-894)
HPRU-OD-M900	Outdoor High Power Remote Unit Module, 900MHz FDD/TDD (880-915/925-960)
HPRU-OD-M1700	Outdoor High Power Remote Unit Module, 1700MHz FDD/TDD (1710-1755/2110-2155)
HPRU-OD-M1800	Outdoor High Power Remote Unit Module, 1800MHz FDD/TDD (1710-1770/1805-1865)
HPRU-OD-M1900	Outdoor High Power Remote Unit Module, 1900MHz FDD/TDD (1850-1910/1930-1990)
HPRU-OD-M2100	Outdoor High Power Remote Unit Module, 2100MHz FDD/TDD (1920-1980/2110-2170)
HPRU-OD-M2300L	Outdoor High Power Remote Unit Module, Higher 2300MHz FDD/TDD (2300-2360)
HPRU-OD-M2300U	Outdoor High Power Remote Unit Module, Upper 2300MHz FDD/TDD (2340-2400)
HPRU-OD-M2600	Outdoor High Power Remote Unit Module, 2600MHz FDD/TDD (2510-2570/2630-2590)