



## NetAstra AU 5x50 A

### Sector Base Station – NetAstra AU 5x50 A

NetAstra AU 5x50 A is a Sector Base Station Radio unit, providing up to 50 Mbps net aggregate throughput and delivering access connectivity up to 32 Subscriber Units (SUs).

NetAstra AU 5x50 A supports from 4.9 to 5.9 GHz and complies with FCC, IC (Canada), WPC (India), MII (China) and Universal regulations.

NetAstra AU 5x50 A comes with an integrated antenna.

### Product Highlights

- Up to 50 Mbps aggregated throughput
- Guaranteed Service Level Agreement (SLA) per SU
- Outstanding short and constant latency
- Support up to 32 SUs
- Long range – up to 40 km/25 miles
- Single radio supporting multiple bands
- Advanced MIMO, OFDM and Diversity technologies
- Excellent operation in nLOS and NLOS scenarios
- Robust and reliable to operate in tough conditions, extreme temperatures
- Ease of operation and maintenance



## Product Specifications

### Configuration

Architecture	Outdoor Unit with Integrated Antenna
PoE to ODU Interface	Outdoor CAT-5e; Maximum cable length: 100 m for 10/100BaseT and 75 m for 1000BaseT

### Radio

Capacity	50 Mbps net aggregate throughput
Subscriber Units (HSUs) support	Up to 32 SUs
Range	Up to 40 km / 25 miles
Channel Bandwidth	Configurable: 5, 10, 20 and 40 MHz (for the default band)
Modulation	2x2 MIMO-OFDM (BPSK/QPSK/16QAM/64QAM)
Bandwidth allocation	Configurable: Symmetric and Asymmetric
Adaptive Modulation & Coding	Supported
DFS	Not Supported (for the default band)
Diversity	Supported
Max Tx Power	25 dBm
Duplex Technology	TDD
Error Correction	FEC k = 1/2, 2/3, 3/4, 5/6
Encryption	AES 128; FIPS 197; AES 256 optional (via Software License Key)
Support Indoor units	Netronics PoE devices
End to End Latency	Typical: 3.5 msec @ 2 SUs; 20 msec @ 32 SUs
Layer 2	Bridging learning of 5K MAC addresses
QoS	Packet classification to 4 priority queues according to 802.1p and Diffserv
VLAN Support	802.1Q, QinQ, 4094 VLANs
TDD Intra Site Synchronization	Supported
TDD Inter Site Synchronization	Supported through common GPS receiver per site

### Supported Bands

Band	Channel BW 5 MHz	Channel BW 10 MHz	Channel BW 20 MHz	Channel BW 40 MHz	Radio Compliance
5.8 GHz FCC/IC*	5.7275 - 5.8475	5.725 - 5.850	5.725 - 5.850	5.725 - 5.850	FCC 47CFR Part 15.247; IC RSS-210
4.9 GHz Universal	4.8975 - 4.9925	4.895 - 4.995	4.890 - 5.000	4.880 - 5.000	Universal
5.1 GHz Universal	5.1475 - 5.3375	5.145 - 5.340	5.140 - 5.345	5.130 - 5.355	Universal
5.4 GHz FCC/IC	5.4775 - 5.7175	5.480 - 5.715	5.480 - 5.715	5.480 - 5.715	FCC 47CFR Part 15.407; IC RSS-210
5.4 GHz Universal	5.4725 - 5.7225	5.470 - 5.725	5.465 - 5.730	5.455 - 5.740	Universal
5.8 GHz WPC	5.8275 - 5.8725	5.825 - 5.875	5.825 - 5.875	5.815 - 5.885	WPC (India) G.S.R 38(E) dated 19 January, 2007 Notification
5.8 GHz MII	5.7375 - 5.8375	5.735 - 5.840	5.730 - 5.845	5.720 - 5.855	CMIIT RTA
5.9 GHz Universal	5.7275 - 5.9525	5.725 - 5.955	5.720 - 5.960	5.710 - 5.970	Universal

\* Default Band

Mechanical	
ODU Dimensions	37(w) x 37(h) x 11(d) cm
ODU Weight	3.6 kg / 7.94 lbs
Power	
Power Feeding	Power provided over ODU-IDU cable
Power Consumption	<20 W
Environmental	
Operating Temperatures	-35°C to 60°C / -31°F to 140°F
Humidity	100% condensing, IP67 (totally protected against dust and against immersion up to 1 m)
Safety	
FCC/IC (cTUVus)	UL 60950-1, UL 60950-22, CAN/CSA C22.2 60950-1, CAN/CSA C22.2 60950-22
ETSI	EN/IEC 60950-1, EN/IEC 60950-22
EMC	
FCC	47 CFR Class B, Part15, Subpart B
ETSI	EN 300 386, EN 301 489-1, EN 301 489-4
CAN/CSA-CEI/IEC	CISPR 22-04 Class B



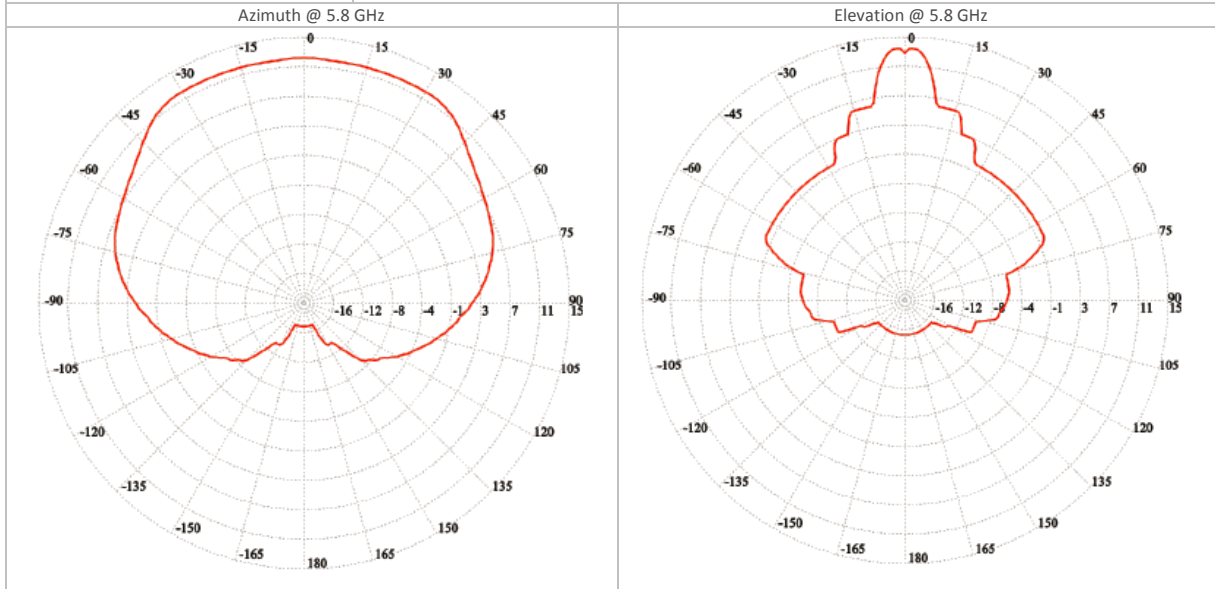
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### Integrated Antenna

Gain	13 dBi
VSWR	1.7 : 1 (typ)
3 dB Az. Beam width	90° (typ)
AZ & EL Beam Squint	0
Polarization	Dual Linear (Vertical and Horizontal)
Side lobes Level	-10 dB (typ)
Cross Polarization	-25 dB (typ)
F/B Ratio	-15 dB
Port To Port Isolation	30 dB (typ)
Lightning Protection	DC grounded

### Antenna Pattern



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