



NetAstra AU 5x25 A

Sector Base Station – NetAstra AU 5x25 A

NetAstra AU 5x25 A is a Sector Base Station Radio unit, providing up to 25 Mbps net aggregate throughput while delivering access connectivity for up to 16 Subscriber Units (SUs).

NetAstra AU 5x25 A supports 4.9 to 5.9 GHz and complies with FCC/IC, WPC (India), MII (China) and Universal regulations (factory default: 5.8 GHz FCC/IC).

NetAstra AU 5x25 A with an integrated antenna.

Product Highlights

- Up to 25 Mbps net aggregate throughput
- Long range – up to 40 km/25 miles
- Guaranteed Service Level Agreement (SLA) per Subscriber Unit (SU)
- Support up to 16 Subscriber Units (SUs)
- Exceptional short and constant latency
- Advanced MIMO, OFDM and Diversity technologies
- Single radio supporting multiple bands
- Robust and reliable operation in tough conditions, extreme temperatures and non line-of-sight scenarios
- Ease of operation and maintenance



Product Specifications

Configuration

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

Radio

| | |
|--------------------------------|---|
| Capacity | 25 Mbps net aggregate throughput |
| Subscriber Units (SUs) support | Up to 16 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 |
| Support Indoor units | Netronics PoE devices |
| End to End Latency | Typical: 3.5 msec @ 2 SUs; 12 msec @ 16 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 FCC/IC | 4.9425 - 4.9875 | 4.940 - 4.990 | 4.940 - 4.990 | - | FCC 47CFR Part 90 Subpart Y; IC RSS-111 |
| 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 |
| 5.2 GHz FCC/IC | 5.2525 - 5.3475 | 5.255 - 5.345 | 5.255 - 5.345 | 5.255 - 5.345 | FCC 47CFR Part 15.407; IC RSS-210 |
| 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 | 24(w) x 20(h) x 8(d) cm |
| ODU Weight | 1.5 kg / 3.31 lbs |
| Power | |
| Power Feeding | Power provided over ODU-IDU cable |
| Power Consumption | <12 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 |



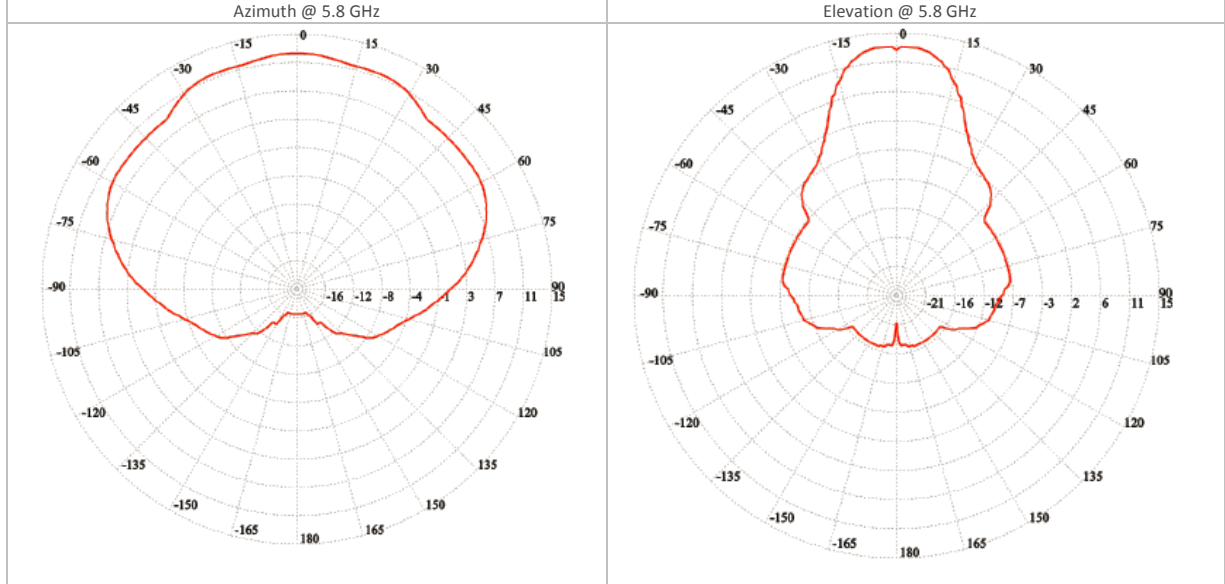
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Integrated Antenna

| | |
|------------------------|---|
| Gain | 11 dBi |
| VSWR | 1.5 : 1 (typ) |
| 3 dB Beam width | 90° (typ) |
| AZ & EL. Beam Squint | 3° (typ) |
| Polarization | Dual Linear (Vertical and Horizontal) |
| Side lobes Level | ANEXO A RESOLUCAO N 372; DE 19 DE MAIO 2004; BRAZIL |
| Cross Polarization | ANEXO A RESOLUCAO N 372; DE 19 DE MAIO 2004; BRAZIL |
| F/B Ratio | -20 dB |
| Port To Port Isolation | 22 dB (typ) |
| Lightning Protection | DC grounded |

Antenna Pattern



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