

TRISECTOR PENTABAND 1x 698-960 MHz, 4x 1710-2690 MHz

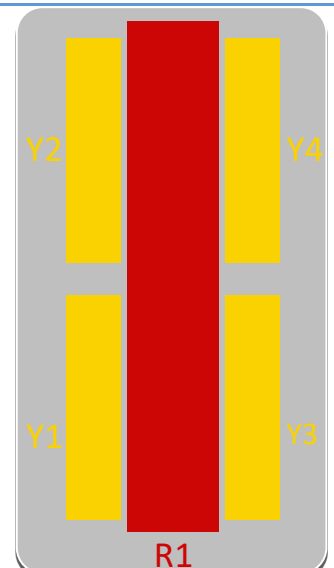
- Compact Antenna
- Diameter 635 mm
- Internal RET

RF Electrical specifications*

| Frequency Range (MHz) | | 698-790 | 792-862 | 880-960 | 1710-1880 | | 1920-2170 | 2500-2690 | | |
|--|-----------------|---------|---------|---------|-----------|---------|-----------|-----------|-------|-------|
| Cluster Name | | R1 | | | Y1 // Y3 | | Y2 // Y4 | | | |
| Gain (dBi) | Min Tilt | 16,4 | 16,2 | 16,5 | 16,6 | 17,1 | 18,9 | 16,1 | 16,8 | 18,4 |
| | Mid Tilt | 16,6 | 16,7 | 16,8 | 16,9 | 17,6 | 19,1 | 16,4 | 17,0 | 18,7 |
| | Max tilt | 16,3 | 16,4 | 16,3 | 16,8 | 17,4 | 18,8 | 16,3 | 16,9 | 18,4 |
| | Over all Tilts: | | | | | | | | | |
| | Average | 16,4 | 16,4 | 16,5 | 16,8 | 17,4 | 19,0 | 16,3 | 16,9 | 18,5 |
| Azimuth Beamwidth (deg) | Tolerance | 0,4 | 0,3 | 0,4 | 0,7 | 0,6 | 0,5 | 0,5 | 0,6 | 0,5 |
| | Average | 62,5 | 63,0 | 63,8 | 64,65 | 65,15 | 51,35 | 64,65 | 65,15 | 51,35 |
| Elevation Beamwidth (deg) | Tolerance | 3,4 | 2,5 | 2,7 | 6,60 | 4,00 | 2,65 | 6,60 | 4,00 | 2,65 |
| | Average | 9,1 | 7,7 | 6,9 | 6,9 | 6,2 | 5,0 | 6,9 | 6,2 | 5,0 |
| Elevation Downtilt Deviation (deg) | Tolerance | 0,2 | 0,3 | 0,6 | 0,5 | 0,5 | 0,3 | 0,5 | 0,5 | 0,3 |
| | Average | <0,2 | <0,4 | <0,4 | <0,6 | <0,2 | <0,4 | <0,6 | <0,2 | <0,4 |
| First Upper Sidelobe level | | >18 | >17 | >12 | >17 | >17 | >15 | >17 | >17 | >15 |
| Upper Sidelobe Level peak to 20° above (dB) | | >18 | >18 | >13 | >17 | >17 | >15 | >17 | >17 | >15 |
| Cross Polar Discrimination at Boresight (dB) | | >17 | >23 | >20 | >17 | >18 | >22 | >17 | >18 | >22 |
| Cross Polar Discrimination Over Sector (dB) | | >6 | >9 | >6 | >8 | >9 | >6 | >8 | >9 | >6 |
| Front to Back Ratio total power ±30° (dB) | | >24 | >24 | >23 | >25 | >26 | >23 | >25 | >26 | >23 |
| Cross Polar Isolation (dB) | | >29 | >29 | >29 | >27 | >27 | >27 | >27 | >27 | >27 |
| Interband isolation (dB) | | | | | | >28 | | | | |
| Polarization (deg) | | | | | | ±45 | | | | |
| Electrical Downtilt (deg) | | | | | | 2–12 | | | | |
| Impedance (Ω) | | | | | | 50 | | | | |
| VSWR | | | | | | < 1.5:1 | | | | |
| PIM, 2x43dBm (dBc) | | | | | | < -150 | | | | |
| Max. Effective Power per Port (W) | | | | | | 300 | | | | |

* All specifications are subject to change without notice. Refer to TELNET for the most current information.

* All specifications are based on NGMN recommendations on Base Station Antenna Standards (BASTA).



Mechanical specifications

| | |
|---|----------------------------------|
| Antenna Dimensions: Height/Diameter (mm) | 2855 + 300 x 635 |
| Packing Size: Height/Width/Depth (mm) | 3256 x 751 x 757 |
| Net Weight (kg) | 189 |
| Shipping Weight (kg) | 207 |
| Connector Quantity | 30 (3x10) |
| Connector Type | 7/16 or 4.3-10 female connectors |
| Connector Position | Bottom |
| Wind Load Frontal (N @ 150 KMH) | 1674 |
| Wind Load Lateral (N @ 150 KMH) | 1674 |
| Wind Load Rear (N @ 150 KMH) | 1674 |
| Survival wind speed (km/h) | 200 |
| Azimuth (Full antenna / Per Sector) | ± 50° / ± 0° |
| Radome Material | Fiber glass + polyester |
| Radome Colour | RAL9018 |
| Mechanical Distance between Mounting Points - Antenna | N/A |
| Mechanical Distance between Mounting Points - Pole | N/A |
| Lightning Protection | DC grounded |

TELNET RET

| | |
|---|--|
| RET Type | Internal |
| Actuator standalone size: Height / Width / Depth (mm) | Inside the antenna |
| Actuator installed size: Height / Width / Depth (mm) | Inside the antenna |
| Working temperature range (°C) | -33–70 |
| Power consumption (W) | 1–10 |
| Loss of position on power failure | False |
| Compatible standards | 3GPP/AISG 2.0 |
| Configuration management | Integrated RET, pre-configured. |
| Antenna configuration file availability | True |
| Antenna configuration file upgradability | Yes, by base station and proprietary portable controller |
| Software upgradability | Yes, by portable controller only. |
| Replaceability in field | Yes, without removing antenna. |
| Visual indicator available on tilt change | True |
| Daisy chain available | True |

TNA990A15Rx0y ordering codes:


| | |
|------------|---|
| Rx: | <ul style="list-style-type: none"> • RU: Antenna with INTERNAL RET in all bands + one AISG control interface • RI: Antenna with INTERNAL RET in all bands + two AISG control interfaces • RP: Antenna ready for INTERNAL RET installation in all bands and one ore two AISG control interfaces. Motors and electronics can be installed afterwards (without uninstalling antenna) |
| Oy: | <ul style="list-style-type: none"> • 00: Antenna with 7/16 connectors • 01: Antenna with 4.3-1 connectors |

* By default, all antennas are supplied with trisector configuration and white colour (RAL9018). For different colours and sector configurations, contact TELNET Redes Inteligentes.




RET Cabling recommendations:

Cabling for daisy chain connexion between sectors

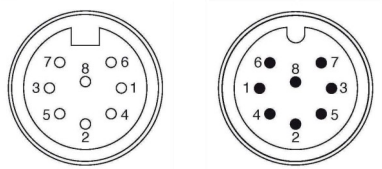
| | | |
|-------------------|--|--|
| Telnet cable code | TNR215xxx (where xxx is the length of the cable) |  |
| Connector 1 | IEC 60130-9, female connector | |
| Connector 2 | IEC 60130-9, male connector | |
| Length | 500mm | |

Cabling between RETs and BTS/RRU

| | | |
|-------------------|--|--|
| Telnet cable code | TNR215xxx (where xxx is the length of the cable) |  |
| Connector 1 | IEC 60130-9, female connector | |
| Connector 2 | IEC 60130-9, male connector | |
| Length | From 1m to 150m | |

Pin assignment

| | |
|----------|----------------|
| 1 | Not connected |
| 2 | Not connected |
| 3 | RS485 B |
| 4 | Not connected |
| 5 | RS485 A |
| 6 | +10V - +30V DC |
| 7 | DC Return |
| 8 | Not connected |



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