

## NT-5048 PS

NEO-Tera Serie 5000 offer you the best cost effective flexible and high professional solution to build a **Public Safety Data Networks**. PS (Public Safety) version adds 4,9GHz band to the NT-5000 series frequency bands (5.2GHz; 5.4GHz; 5.8GHz), allowing a hot band change. As all models of the series it can operate in different modes (P-P, P-M) and change the frequency band with just a simple configuration selection.



### Benefits:

- ♦ Very fast installation and configuration
- ♦ Cost savings: flexibility / modularity / NoLOS
- ♦ Scalability / Linear costs
- ♦ High Availability and Quality of Service
- ♦ All in one solution : Bridge + Advanced Router
- ♦ Multi-Topologies: P-P, P-MP, Mesh, Ring, Redundancy, etc.



NEO-Tera NT-5048ST is an ODU (Outdoor Unit) designed to work like a end of a point-to-point link or like a remote station within a multipoint network. Its integrated design is based on a high availability hardware and software capable to handle up to 45Mbps of data throughput with a very high quality panel antenna reaching up to 30Km. It is not a simple bridge, it is also an advanced router with VPN server, VLAN/trunking, QoS and other upper level features.

## Technical Specifications



### General

| Operation Frequency |                                 | Operating Mode            |                   |
|---------------------|---------------------------------|---------------------------|-------------------|
| Band 1              | Multi Band<br>4.950GHz~4.990GHz | P-P                       | ✓                 |
| Band 2              | 5.150GHz~5.250GHz               | P-MP                      | ✓                 |
| Band 3              | 5.250GHz~5.350GHz               | Mesh                      | ✓                 |
| Band 4              | 5.470GHz~5.725GHz               | Dual Radio                | ✓                 |
| Band 5              | 5.725GHz~5.850GHz               | NoLOS                     | ✓                 |
| Link                |                                 | Power Supply              |                   |
| Link type           | Ethernet / IP                   | PoE (Power Over Ethernet) | IEEE.802.11af (*) |
| Traffic Balance     | Sim / Asim                      | Voltage Rating            | 220VAC/14-60VDC   |
| Throughput (L3)     | 45Mbps                          | Power Consumption         | 15W               |
| Link Reach (Typ)    |                                 | EDS Protection            | ITU-T K.12 (*)    |
| P-P                 | 30Km                            |                           |                   |
| P-MP                | 20Km                            |                           |                   |

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## Radio Specifications

### Radio MAC/PHY

|                              |                             |
|------------------------------|-----------------------------|
| Transmission Protocol        | Pre-WiMax                   |
| Modulation                   | OFDM                        |
| Modulation Technique         | BPSK / QPSK / 16QAM / 64QAM |
| Access Method                | TDMA                        |
| Duplexing                    | TDD/TDM                     |
| Central Frequency Resolution | 5Mhz                        |
| Channel Width                | 5/10/20/40MHz               |

### Tx Power

|                  |       |
|------------------|-------|
| TX Power @ 64QAM | 21dbm |
| TX Power @ BPSK  | 26dbm |
| ERIP (Typ)       | 48db  |

### RX Sensitivity

|                    |        |
|--------------------|--------|
| RX Sensit. @ 64QAM | -74dbm |
| RX Sensit.@ BPSK   | -94dbm |

## Advanced Features

### VPN

|            |                       |
|------------|-----------------------|
| VLAN       | L2/L3/L4              |
| Tunneling  | IEEE802.1q            |
| Encryption | EoIP                  |
|            | WEP / WPA / DES / AES |

### Routing

|                            |   |
|----------------------------|---|
| Static Routing             | ✓ |
| MPLS / VRF                 | ✓ |
| OSPF / RIP/ BGP/ PIM/ IGMP | ✓ |
| VRRP (High Availability)   | ✓ |

### Quality of Service (QoS)

|                                   |                      |
|-----------------------------------|----------------------|
| Traffic Shaping                   | ✓                    |
| Load Balancing; Broadcast control | ✓                    |
| Bandwidth Control                 | CIR / MIR / Bursting |

### Management & Monitoring

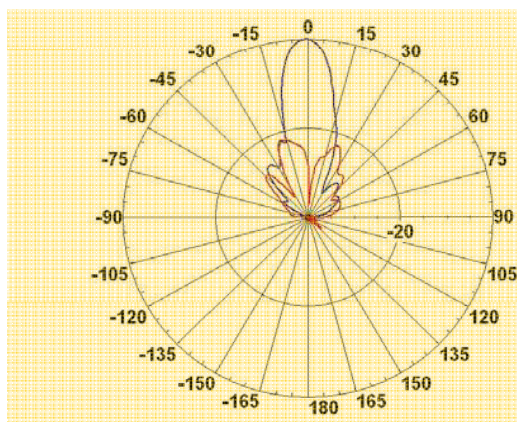
|                           |                  |
|---------------------------|------------------|
| SNMP                      | RFC 1592         |
| Graphical Interface (GUI) | WinXP/Win7/Linux |

## Integrated Antenna

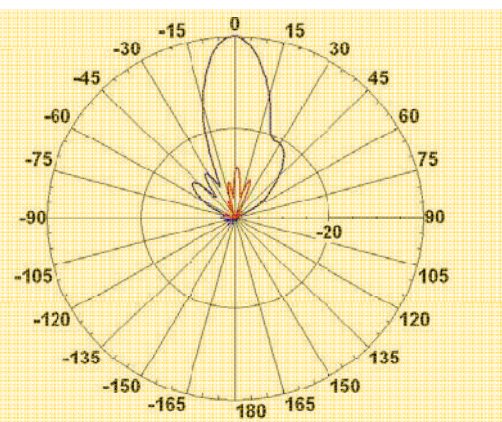
|                             |             |
|-----------------------------|-------------|
| Gain / Diversity            | 23dbi       |
| Polarization                | V/H         |
| Directivity                 | 9°          |
| Cross Polar. Discrimination | -28db       |
| F/B Ratio                   | -35db       |
| Lightning Protection        | DC Grounded |

## Radiation Patterns

Azimuth



Elevation



## NT-5048 PS

### Enviromental

|                     |          |
|---------------------|----------|
| Wind Load (Side)    | 4,6Kg    |
| Humidity            | 95%      |
| Enclosure Material  | Aluminum |
| Wind Speed Survival | 220Km/h  |

| TEST             | STANDARD             | DURATION    | TEMPERATURE     | NOTES       |
|------------------|----------------------|-------------|-----------------|-------------|
| Low Temperature  | IEC 68-2-1           | 72 h        | -45 °C          |             |
| High Temperature | IEC 68-2-2           | 72 h        | +70 °C          |             |
| Temp. Cycling    | IEC 68-2-14          | 1 h         | -45 °C ~ +70 °C | 3 Cycles    |
| Vibrations       | IEC 60721-3-4        | 30 min/axis |                 | Random4M3   |
| Shock Mechanical | IEC 60721-3-4        |             |                 | 4M3         |
| Humidity         | ETSI EN300-2-4 T4.1E | 144 h       |                 | 95%         |
| Water Tightness  | IEC 529              |             |                 | IP67        |
| Solar Radiation  | ASTM G53             | 1000 h      |                 |             |
| Flammability     | UL 94                |             |                 | Class HB    |
| Salt Spray       | IEC 68-2-11 Ka       | 500 h       |                 |             |
| Ice and Snow     |                      |             |                 | 25mm Radial |

### Mechanical

|                        |              |
|------------------------|--------------|
| Physical Specification |              |
| Dimensions LxWxD       | 305x305X85mm |
| Weight                 | 6,8Kg        |
| Wind Speed Operation   | 160Km/h      |
| Wind Load (Front)      | 26,8Kg       |

