



[TNA-303X Datasheet](#)

## Outdoor 60 GHz PTP & PTMP Fixed Wireless Solutions

Learn more at [www.tachyon-networks.com](http://www.tachyon-networks.com)

### Applications

#### Sub-7GHz offload

Because the sub-7GHz spectrum is scarce and prone to interference, the TNA-300 series models are perfect for offloading clients within range, leaving the low bands for hard-to-reach customers.

#### Deploying fiber-like service

The TNA-300 series product family can deliver multi-Gigabit speeds to up to 32 clients per sector at a fraction of the cost of deploying fiber.

#### High speed point-to-point

Use the TNA-300 series products to easily create point-to-point connections between buildings in urban environments.

#### High bandwidth video surveillance

The TNA-300 series units feature a proprietary TDMA scheduling protocol which is perfect for video surveillance networks requiring high-capacity upload bandwidth.

### Key Features

#### Fiber-like speeds using the 60GHz band

2+ Gbps can be achieved and distances of up to 8+ km (antenna kit dependent) without trenching, permits, or licenses.

#### Upper-band support

All models support the full 60GHz band, including channels 5 and 6 (57-71 GHz), enabling longer links and increased co-location opportunities.

#### Modular design simplifies inventory and installation

The TNA-303X features a modular design. The base unit features 90° of beam-forming coverage and can be paired with an antenna kit (sold separately) to convert the radio from a wide beam-steering device to a highly directional one.

#### Best overall affordability

The low cost of the TNA-300 series product family, combined with high subscriber density and quick installation, greatly decreases total cost of ownership for service providers.

TNA-303X CONFIGURATIONS	BASE	AK-S-45	AK-S-90	AK-100	AK-300
Beam-forming range	90° x 50°	45° x 10°	90° x 10°	6° x 6°	2° x 2°
Max EIRP (Country dependent)	38dBm	50dBm	50dBm	55dBm	64dBm

\*Max distance using channels 5/6.

## 60 GHZ SPECS

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Operating modes	Station, Access Point (software configurable).
Max STA count per AP	Up to 32 stations
Max EIRP (base/100mm/250mm)	38dBm / 55dBm / 60dBm depending on antenna kit and local regulations
Link encryption	AES 128 + GCMP
Frequency & supported channels	Full band: 57-71 GHz: channels: 1-6 Half channels: 1-11 (see notes on support site about half channel support)
Channel size options	Full (2 GHz), half (1 GHz) (see notes on support site about half channel support)
Station scheduling	TDMA: dynamic scheduling mechanism
TNA-303X Base Antenna	16 dBi 3D beamforming phased array with +/- 45° azimuth (90° total) and +/- 25° elevation (50° total). Beam size is: 30° azimuth x 30° elevation. Single linear polarization.
Duplexing	TDD

## SOFTWARE SPECS

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Max MTU size	7900 b
Networking mode	Transparent bridge
VLAN capabilities	Data VLAN (in station mode) & management VLAN
Other features	Traffic shaping (station mode), DHCP snooping, device discovery, speedtest, and more
IPv4/IPv6 support	Both are supported
Management	Web interface, SNMP v2 & v3, SNMP traps, & RESTful API (SSH available upon request)

## HARDWARE SPECS

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Interfaces	1 x 2.5G ethernet, 1 x 1G ethernet
Mount	Pole or wall mountable via mounting backplate
PoE input power	Active PoE 38-57VDC (passive injector included)
Output power	On 1G port: passive PoE out w/max .5A
Max power consumption	17W w/o PoE out in use, and 41W with it in use
Certifications	FCC: Z9W-TNA-303X; IC: 11468A-TNA303X
Operating temperature	-30°C - 55°C
Base Unit dimensions & weight	Height: 5" / 13cm, Width: 5" / 12 cm, Depth: 2" / 5.5cm, 15 oz / 425 g
LEDs	Ethernet link status, wireless status, signal level, & power