

[TNA-303X Datasheet \(DRAFT\)](#)

Outdoor 60 GHz PTP & PTMP Fixed Wireless Solutions

Learn more at www.tachyon-networks.com

Applications

Sub-6GHz offload

Because the sub-6GHz spectrum is scarce and prone to interference, the TNA-30x models are perfect for offloading clients within range, leaving the low bands for hard-to-reach customers.

Deploying fiber-like service

The TNA-30x 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-30x products to easily create point-to-point connections between buildings in urban environments.

High bandwidth video surveillance

The TNA-30x 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 4+ 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-30x product family, combined with high subscriber density and quick installation, greatly decreases total cost of ownership for service providers.

TNA-303X CONFIGURATIONS	BASE MODEL	100MM ANTENNA KIT	200MM ANTENNA KIT
Recommended PTMP Distance (TNA-301 as AP)	300m	2km*	4km*
Beam-forming range	90° x 50°	6° x 6°	None
Antenna gain	16dBi	33dBi	38dBi

*Max distance using channels 5/6.

60 GHZ SPECS

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 256 + 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. Vertical polarization.
100mm Antenna Kit	33dBi directional antenna with 3° beam @3dB and 5° beam @6dB
200mm Antenna Kit	38dBi directional antenna with 1.5° beam @3dB and 2.5° beam @6dB
Duplexing	TDD

SOFTWARE SPECS

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)

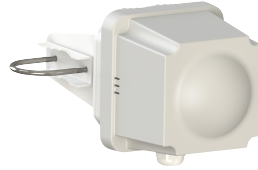
HARDWARE SPECS

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

ANTENNA SPECS

Model	TNA-303X (Base)	TNA-AK-100	TNA-AK-200
Antenna Gain	16dBi	33dBi	38dBi
Azimuth Pattern	TBD	TBD	TBD
Elevation Pattern	TBD	TBD	TBD

Front Design



Rear Design

