



### TNA-305X Datasheet

## Outdoor 60 GHz + 5/6GHz 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 and for backup.

### 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-305X 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.

### Integrated backup radio

The TNA-305X includes an integrated 5-7GHz wide band backup radio to provide connectivity during periods of heavy rainfall. The TNA-305X is extremely flexible in channel options as well as channel bandwidth making robust backup a breeze.

TNA-305X CONFIGURATIONS	BASE	AK-S-45	AK-S-90	AK-100	AK-150	AK-300
Beam-forming range	90° x 50°	45° x 5°	90° x 5°	6° x 6°	4° x 4°	2° x 2°
Max Antenna Gain (60GHz)	16dBi	30dBi	30dBi	33dBi	37dBi	42dBi
Max Antenna Gain (5/6GHz)	9dBi	Not Rec	Not Rec	11dBi	13dBi	18dBi

## 60 GHZ SPECS

Operating modes	Station, Access Point, PTP (software configurable)
Max STA count per AP	Up to 32 stations
Max EIRP (base)	38dBm / higher when used with antenna kits
Link encryption	AES 128 + GCMP
Frequency & supported channels	Full band: 57-71 GHz: channels: 1-6 Half channels: 1-12 (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 / Duplexing	TDMA: dynamic scheduling mechanism / TDD
TNA-305X 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.

## 5-7 GHZ SPECS

Operating modes	Station, Access Point, PTP (software configurable)
Link encryption	AES 256 + GCMP
RF	WiFi-7 – Based / 5.1-7GHz (country dependent) +22dBm TX Power Combined (MCS0) / -93dBm @MCS0, -64dBm @MCS11
Channel size options	20/40/80/160/240/320MHz
Station scheduling / Duplexing	OFDMA / TDD
Antenna options	Integrated 2x2 + 2x2 patch compatible with TNA-AK antenna kits 2x RP-SMA connectors (software selectable) for external antennas

## SOFTWARE SPECS

Max MTU size	2024 b
Networking mode	Transparent bridge / IPv4 & IPv6 Supported
VLAN capabilities	Data VLAN (in station mode) & management VLAN
Other features	Traffic shaping (station mode), DHCP snooping, device discovery, speedtest, and more
Management	Web interface, SNMP v2 & v3, SNMP traps, & RESTful API (SSH available upon request)

## HARDWARE SPECS

Wired Interfaces	1 x 2.5G ethernet
Management Interfaces	2.4GHz WiFi7 w/ Internal Antennas
GPS	22 tracking / 66 acquisition-channel GPS receiver w/ DGPS
Mount	Pole or wall mountable via mounting backplate
PoE input power	Active PoE 38-57VDC (passive injector included)
Max power consumption	TBD
Certifications	FCC/IC/CE/UK
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