

# LPN FIXED NETWORK COLLECTOR

## We've got you covered.

RG3 Licensed Private Network (LPN) Fixed Network Collectors offer a strategic two-way communications option for smart water and smart gas deployments. Tesla Net LPN operates in the 450-470 MHz frequency band spectrum creating a highly reliable private network with extensive coverage and far-reaching range.

The two-way system incorporates rich security features and is end-to-end upgradable remotely with over-the-air updates. The proprietary LPN RF protocol provides time-synched operations to alleviate network RF collision. Data is time-stamped and mapped to show how it travelled through the network. The result is extremely reliable network coverage.



## High-Capacity FNC Base Station and Repeater

**Rugged Simplicity** LPN Fixed Network Collectors (FNC) can operate as a base station or a repeater depending on internet connectivity. If plugged into Ethernet or connected to WiFi, the FNC is a base station. If not, it is a repeater. FNCs are elegantly designed with only a solid-state transceiver array and a few supporting components. The simplicity of the build makes LPN Fixed Network Collectors affordable, extremely durable, and maintenance free.

**Scalability and Performance** Depending on antenna installation height, geography, building construction, and land cover, LPN Base Stations and Repeaters can provide a coverage radius of up to 3.5-miles. A single FNC base station can communicate with up to 48,000 endpoints and store 38 million reads. FNC base stations can communicate with up to 12 FNC repeaters within a 10-mile radius. The repeater mode duty cycle limits FNC repeaters to 12,000 endpoints and a capacity of 153,000 reads.

**Data Backhaul** Ethernet is the preferred backhaul because hardwired connections are the most reliable and the data transfer speed allows utilities to view data in near real time. Wi-Fi is the second preference and offers similar performance. As a backup, stored data is also retrievable manually with a 450 TRX mobile data collector.

## Features and Benefits

- Up to 38 Square Miles (3.5 mile radius from tower) of network coverage from a single Fixed Network Collector
- FNC to FNC communication up to 10 miles
- Quickly migrate part or all of your meter system to read from the office AMI
- Licensed Private Network with low RF interference
- Two-way communications
- Time-Stamped readings and alarms
- Two backhaul options
- Over-the-air remote firmware updates
- End-to-End security
- Hourly usage data
- Near real-time alarms
- Data Storage for redundant transmissions
- Point-to-Multi-Point network
- Easy to add Solo Repeaters as coverage needs grow

## Specifications

	FNC Base Station	FNC Repeater
Enclosure Dimensions	20" x 16" x 8"	20" x 16" x 8"
Weight	34 lbs	34 lbs
Mounting Options	Pole mount	Pole mount
Operating Temperature	-4°F to +140°F (-20°C to +60°C)	-4°F to +140°F (-20°C to +60°C)
Storage Temperature	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)
Enclosure Rating	NEMA 3R	NEMA 3R
Humidity	0% to 95% non-condensing	0% to 95% non-condensing
Operating Power	110VAC	110VAC, Solar
Backup Battery (UPS)	Yes	Yes
Surge Protection	3330 joules	3330 joules
Frequency Band	450-470 MHz	450-470 MHz
Approvals	FCC Part 90 and Part 15	FCC Part 90 and Part 15
Backhaul Options	Wired (Ethernet/Fiber), Wi-Fi	--
# of Endpoints Served	48,000	12,000
# of Repeaters Served	12	--
Capacity of Read Storage	38,000,000 reads	153,000 reads
Backup Mode Read Retrieval	Yes	Yes



## LPN FIXED NETWORK COLLECTOR PRODUCT DATA SHEET