



POINT-TO-POINT SPOJE

## TrangoLINK-45™

45 Mbps Wireless Ethernet Bridge  
5 GHz (5.3 GHz, 5.4 - 5.7 GHz, 5.8 GHz)\*

Point - to - Point High - Capacity Backhaul Networks

The TrangoLINK-45™ is a 5 GHz (5180 - 5850 MHz)\*, point-to-point OFDM Wireless Ethernet Bridge capable of sustained throughput of 45 Mbps with outstanding features including Dynamic Frequency Selection (DFS), Automatic Transmit Power Control (ATPC) and Adaptable Rate Modulation. TrangoLINK-45™ provides exceptional performance and value as a high-capacity solution for ISP backhaul, Enterprise and municipal connectivity, IP video surveillance systems, and “last mile” dedicated connectivity solutions (Internet, T1, leased-lines). TrangoLINK-45™ fully complies with EU (CE, RoHS) regulations.

### Management Features

- Remote & local management via Telnet, SNMP and HTTP
- Asymmetrical bandwidth control, and remote temperature and input voltage measurements
- Built-in LED alignment tool, universal mounting bracket to minimize deployment costs

### Compact/Rugged Designed for Outdoor Deployment

- Fully weatherized outdoor units
- Encased in a heavy-duty aluminum housing
- Rugged conduit adapter, while offering a small footprint
- Powered using Power-over-Ethernet (PoE) ensuring ease of installation and quick deployment

### Interference Mitigation

- Forwarding Error Correction (FEC) and Automatic Repeat reQuest (ARQ)
- Automatic RF Transmit Power Control (ATPC)
- Site survey tools

### Highlights

- Up to 45 Mbps usable data throughput
- 5 GHz band versatility: 5,3 GHz, 5,4 - 5,7 GHz, 5,8 GHz \*
- Up to 10 / 32 km\* range with integrated antenna and data rates 45 Mbps / 5 Mbps
- Up to 32 / 72 km\* range with external antenna and data rates 45 Mbps / 5 Mbps
- Orthogonal Frequency Division Multiplexing

### Performance & Flexibility

- License-exempt 5 GHz, the lower 5.3 GHz U-NII band, the upper 5.4 - 5.7 GHz U-NII band and 5.8 GHz ISM band \*
- OFDM radio with a contention-free point-to-point protocol
- User-selectable data rates of 6, 12, 18, 24, 36, 48 and 54 Mbps
- Dynamic Frequency Selection in 5.3 / 5.4 GHz
- Packet aggregation allows superior FTP performance over long transmission ranges
- RF power output software settings possibilities

### Antenna Versatility

- Horizontal or vertical software-selectable antenna polarity
- EXT model features 2 connectors for dish antenna
- Integrated antenna models feature built-in dual-polarity panel antennas

### Channel Flexibility & Frequency Agility

- 24 possible non-overlapping channels across the U-NII and ISM bands \*
- Up to 24 channels combined with dual-polarized antennas allows for exceptional frequency agility \*

### Security and Authentication

- MAC level address authentication
- 128-bit proprietary encryption, over-the-air data scrambling
- Two-level password control via SSL for secure operation

# TrangoLINK-45™

Point-to-Point High-Capacity Backhaul

## Compatibility / Range Chart

				Range / Fade Margin	
MODEL	Part Number	Model	Antenna	5 MBPS	45 MBPS
TrangoLINK-45™	P5055M-19-INT	Radio w/ integrated 19 dBi Antenna	Internal, 19 dBi	20 km / 16 dB	3 km / 10 dB
TrangoLINK-45™	P5055M-23-INT	Radio w/ integrated 23 dBi Antenna	Internal, 23 dBi	32 km / 21 dB	10 km / 12 dB
TrangoLINK-45™	P5055M-EXT	Connectorized radio External	External, 34 dBi**	72 km / 36 dB	32 km / 22 dB

\* At 5725-5850 of the ISM band

\*\* Based on antenna

## TrangoLINK - 45™ Specifications

RADIO PARAMETERS			
Frequencies of Operation	5180 MHz - 5350 MHz (U-NII) / 5470 MHz - 5725 MHz (U-NII) / 5725 MHz - 5850 MHz (ISM)		
Channels *	24 possible non-overlapping channels*		
Channel Spacing	20 MHz		
RF Power Output	RF power output software settings possibilities		
	U-NII (5250-5350 MHz)	U-NII (5470-5725 MHz)	U-NII (5725-5850 MHz)
	+18 dBm @ 6 Mbps, 14 @ 54 Mbps	+18 dBm @ 6 Mbps, 14 @ 54 Mbps	+21 dBm @ 6 Mbps, 17 @ 54 Mbps
Antenna Polarizations	Horizontal/Vertical (software switchable)		
Modulation Format	OFDM (BPSK, QPSK, 16 QAM, 64 QAM)		
Modulation Speeds	6, 12, 18, 24, 36, 48 and 54 Mbps		
Regulatory Compliance *	EN-301-489-17 (EMC), EN-301-893 (radio compliance), EN 60950 (safety), EN 50385 (RF-exposure), CE, RoHS		
Receiver Sensitivity (10-5 BER)	-92 dBm (6 Mbps mode) to -73 dBm (54 Mbps mode) typical		
DATA AND OPERATIONAL PARAMETERS			
User Data Throughput	5 Mbps (6 Mbps mode) to 45 Mbps (54 Mbps mode)		
Upstream/Downstream Throughput	Dynamic, automatically adjust to suit demand		
Bandwidth Control	Asymmetrical MIR bandwidth control		
Latency	< 5ms		
Interference Handling	Forward Error Correction (FEC) & Automatic Retransmit Request (ARQ)		
Security	Proprietary MAC address authentication; over the air data scrambling; two level password control		
Encryption	128-bit STEP (Secure Trango Encryption Protocol)		
Configuration & Management	Telnet, SNMP, HTTP; TFTP server daemon for firmware upgrades; Built-in Link Performance tests; Remote temperature and input voltage measurement		
DFS / A-TPC	DFS/TPC support for operation in U-NII band		
PHYSICAL INTERFACES			
Ethernet (via shielded RJ45)	10/100 BaseT, auto-sense, auto-negotiate		
Reset Switch	Reset radio to factory default: IP address, subnet mask, gateway and password		
LED indicators	7 LEDs including 4 RSSI		
ANTENNA OPTIONS			
TrangoLINK-45™ P5055M-19-INT	Gain: 19 dBi, E-plane Beamwidth: 18°, H-Plane Beamwidth: 18° Dimensions: 216 mm x 197 mm x 32 mm; Weight: 0.91 Kg		
TrangoLINK-45™ P5055M-23-INT	Gain: 23 dBi, E-plane Beamwidth: 9°, H-Plane Beamwidth: 9° Dimensions: 371 mm x 371 mm x 40 mm; Weight: 2.51 Kg		
TrangoLINK-45™ P5055M-EXT	Reverse SMA connector for optional external antenna		
POWER PARAMETERS			
Power Method	Power-over-Ethernet (PoE) via DC voltage injected at PoE J-box		
Voltage Input Limits into Radio	10,5 V – 24 V		
Standard Power Supply	90 – 260 V		
PoE Cat-5 max Cable Length	100 m		
Power	10 W		
PHYSICAL AND ENVIRONMENTAL			
External Antenna Connector	SMA reverse polarity (-EXT Models only)		
Mounting Provision	Mounts to wall or pole min Ø25 mm		
Reset Button	Reset password and IP configuration		
Radio Enclosure	All-weather, powder coated, heavy duty aluminum construction with conduit adapter		
Radio Dimensions	P5055M-EXT stand-alone radio: 17,8 x 17,8 cm; P5055M-19-INT and P5055M-23-INT: see Antenna Options		
Radio Weight	P5055M-EXT stand-alone radio: 1,4 kg; P5055M-19-INT and P5055M-23-INT: see Antenna Options		
Temperature Range	-40° to 60° C		
User Interface	RJ45 (shielded)		

All specifications are typical and subject to change without notice.

\* Legal regulations for specific frequencies vary from region to region—users are responsible for complying with their region's regulations.

European Distributor



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