Introducing the PTP 500 Series Point-to-Point Solutions

High-Performance, Long-Distance Connectivity Virtually Anywhere

MOTOWI4™

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04-03-08

Product Overview

PTP 500 Series Overview

- 5.4 and 5.8 GHz unlicensed bands

- Up to 105 Mbps Ethernet data rate

- Up to 155 miles (250 km) range

- Built-in lightning protection

- Robust security – unique scrambling plus optional 128/256-bit AES Encryption

- 10 / 100 Base T (RJ-45)

- Small footprint

- Easy to deploy and use

PTP 500 Integrated with dual built-in antennas

PTP 500 Connectorized – high-gain advantage of external antennas

Power Indoor Unit (PIDU Plus) – Power-over-Ethernet to outdoor units

Same Award-Winning Technology

Multiple-Input Multiple-Output (MIMO) – increased tolerance to signal fading

Intelligent Orthogonal Frequency Division Multiplexing – greater resistance to multi-path interference and selective signal fading, plus higher spectral efficiency

Adaptive Modulation – sustains the maximum throughput while maintaining highest link quality

Advanced Spectrum Management with *i*-DFS – samples the band up to 400 times a second and automatically switches to the clearest channel

Best-in-Class Radios – highest system gain in the industry

Network Management

Option 1: Remote management via Web browser

Option 2: Integrate with existing network management systems:

- **SNMP protocol v1 and v2c:**
    – MIB-II
    – Motorola PTP MIB
- **Email alerts**

Network Management

Option 3: Use Canopy® Prizm as network management system

- Supports remote software updates to PTP 400, 500 and 600 Series solutions

- Integrates with other OSS

- Supports open interfaces

- Software Development kit available

- Northbound interface allows other computer systems to "talk" to Prizm and make requests for transactions or data
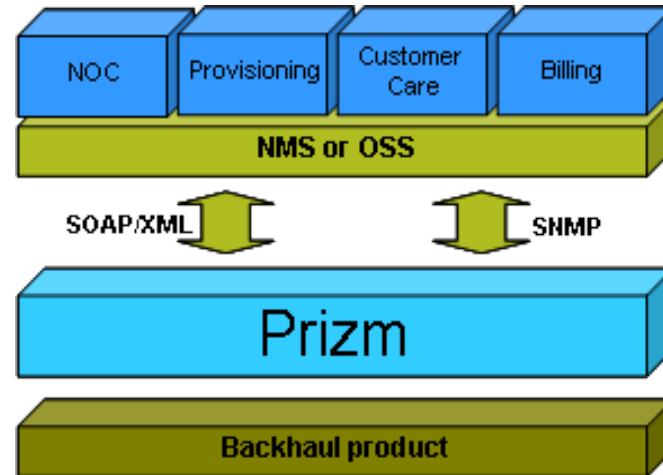
Warranties and Software Support

PTP 500 12-Month Standard Warranty	One-year limited warranty on all hardware components with 30-day repair and replacement for defective parts, plus minor software enhancements as available
PTP Link Guard All-Risk Extended Warranty *	Upgrades and extends the initial 12-month warranty to All-Risk equipment coverage with the 24-hour Advanced Replacement Program; provides coverage for any and all types of equipment damage, including lightning damage, dropped units, vandalism, fire and hardware failure
PTP Link Protector	Extends the standard 12-month warranty with 30-day repair-and-replacement terms through the second, third or fifth years of ownership; this option is typically chosen if one or more spare units are purchased
PTP Software Maintenance Contract	After the initial 12-month standard warranty, an annual Software Maintenance Contract is required to continue receiving software updates and 24 x 7 technical support

* Replacement units are shipped from the UK on the next business day after receipt of a confirmed RMA. Motorola pays shipping costs in both directions.

NLOS and LOS Performance
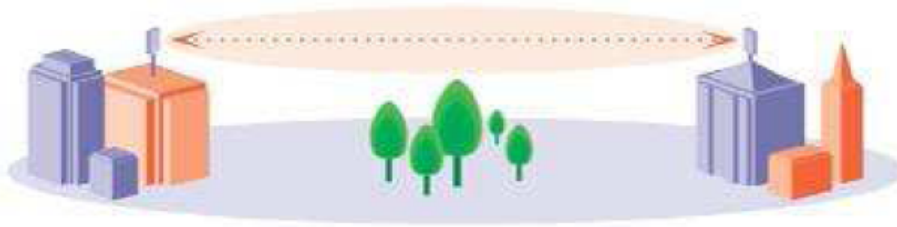
Line-of-Sight (LOS)
Up to **155 miles**

near-Line-of-Sight (nLOS)
Up to **25 miles**

Non-Line-of-Sight (NLOS)
Up to **6 miles**

MOTOROLA PTP LINKPlanner

Predict link performance before purchasing a PTP 500 solution

Plan and optimize a single PTP link or multiple links simultaneously

Receive a comprehensive overview of the entire wireless network via Google™ Earth

PTP LINKPlanner is the only tool that permits calculations for the PTP 500 Series

Perform path calculations for the entire PTP portfolio – both licensed and unlicensed systems

Plans links easily and quickly – ultimately will replace PTP Link Estimator
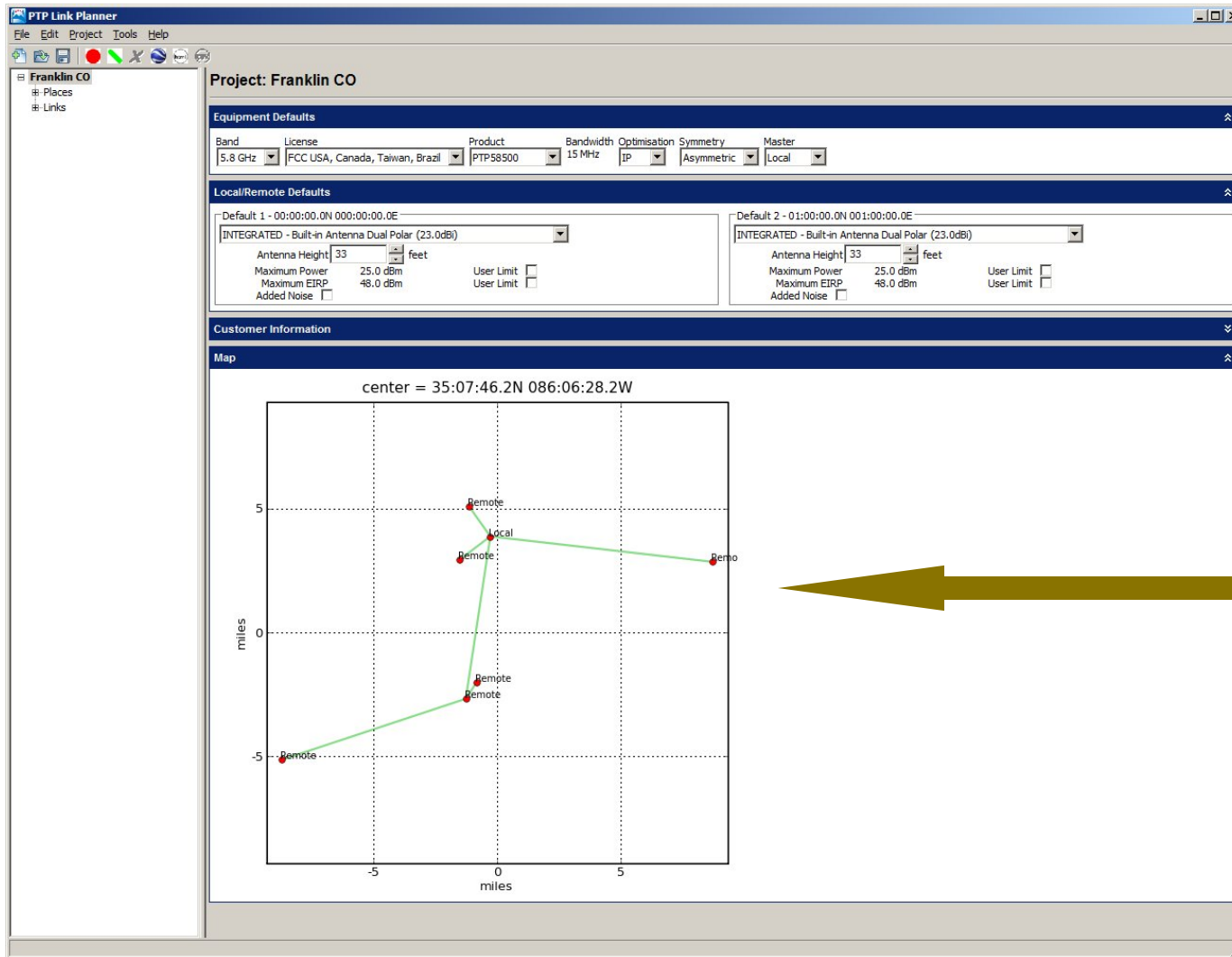
PTP LINKPlanner Results Page
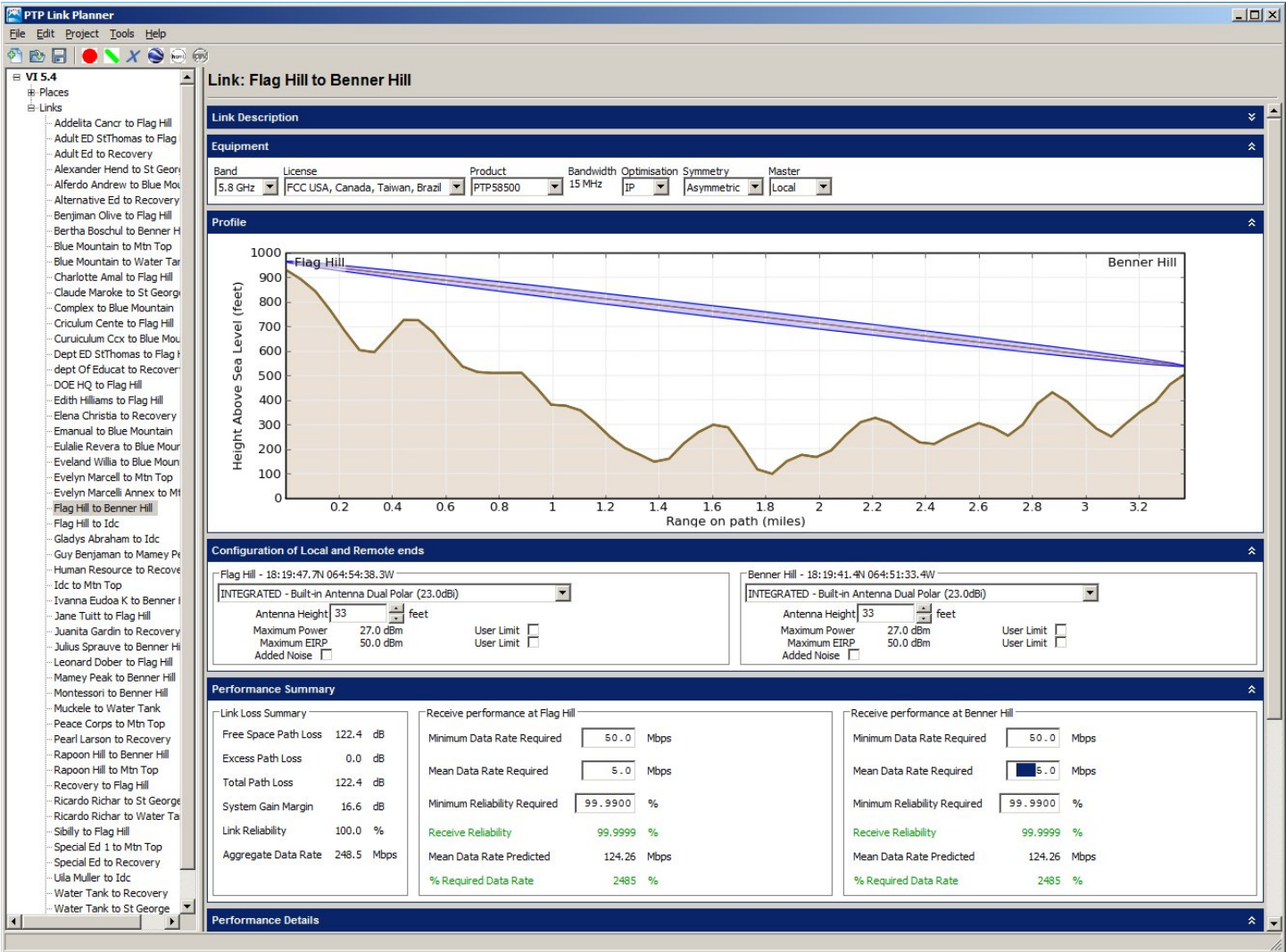
Path Profile

Configuration Detail

Performance Summary

Sample Network Overview Page

Network Map

PTP 500 Advantages

Carrier-class performance in non-line-of-sight and long-distance line-of-sight environments, over water and open terrain

Establish communications in previously inaccessible locations

Reliable, high-throughput operations even in severe weather conditions

Quick and easy deployment – requires no special training or expertise

Determine link performance prior to purchase with the PTP LINKPlanner

Fast ROI – typically less than one year

Applications

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Typical Applications

- High-speed wireless backhaul

- Video surveillance

- Data, voice and video communications

- Connectivity for high-bandwidth applications such as VoIP, multimedia, IP gaming, distance learning and telemedicine

- Building-to-building and campus connectivity

- Disaster recovery and temporary services
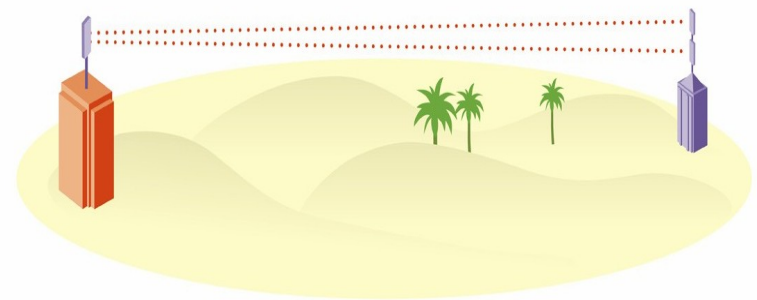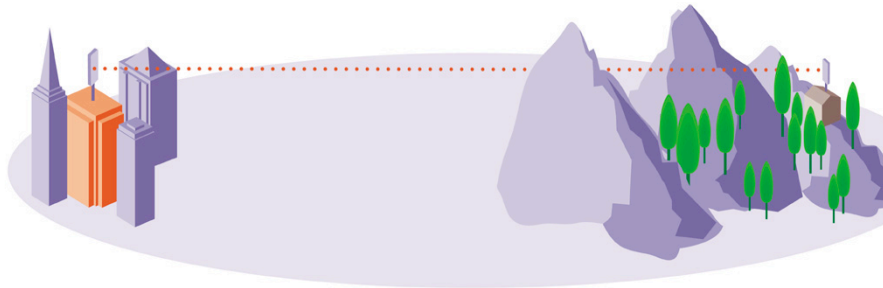
Connect Virtually Anywhere
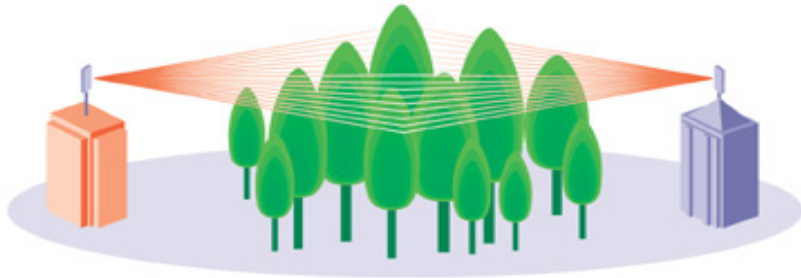
Through Trees
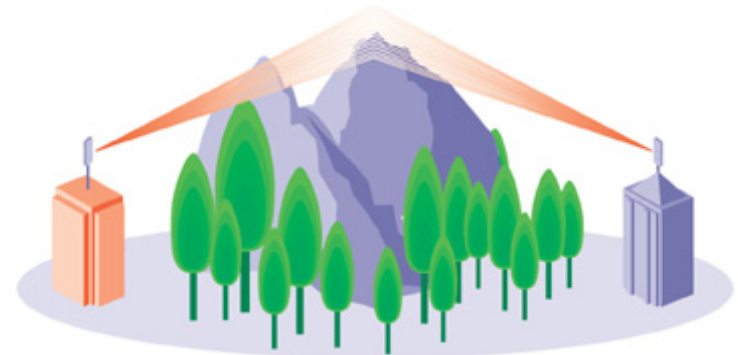
Over Hills

Around Buildings

Over Desert or Water

Connect the Unconnectable

Across Long Distances

········· PTP Wireless Link

In High-Interference Area

PTP 500 Value Proposition

Establish communications to facilities that may not be reached cost-effectively with wired connections

Remove network bottlenecks with high-throughput wireless backhaul

Establish cost-effective network redundancy or extend network reach without trenching new fiber

Establish connectivity in previously inaccessible or high-interference locations

Grow subscriber networks by establishing service in distant locations

Cost-effectively support bandwidth-sensitive applications such as multimedia and VoIP

Extend video surveillance capabilities beyond the constraints of a wired network

Competition

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Competition

Characteristic	Redline AN80i (Turbo)	Alvarion 8100	Motorola PTP 500
Max. Ethernet Data Rate	90 Mbps	70 Mbps	105 Mbps
Channel Width	40 MHz	40 MHz	15 MHz
Range	< 50 Miles (80 km)	< 30 Miles (48 km)	Up To 155 Miles (250 km)
True DFS (selects best channel)	No	Yes	Yes
Maximum Spectral Efficiency	2.25 bps/Hz	1.75 bps/Hz	7 bps/Hz
Maximum System Gain (excluding antennas)	102 dB	107 dB	121 dB
MIMO	No	No	Yes
256-Bit AES	Yes	No	Yes
SNMP v3	No	No	In Future Release

Part Numbers and Pricing

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Part Number	Description	MSRP
WB2857	PTP 58500 5.8 GHz Integrated	$13,995
WB2858	PTP 58500 5.8 GHz Connectorized	$13,995
WB2874	PTP 54500 5.4 GHz Integrated	$13,995
WB2875	PTP 54500 5.4 GHz Connectorized	$13,995
WB2978	LPU End Kit for PTP 500 Radios *	$150

* Two kits per link for protection from damage caused by lightning