



INFINET
wireless



Infinet Wireless

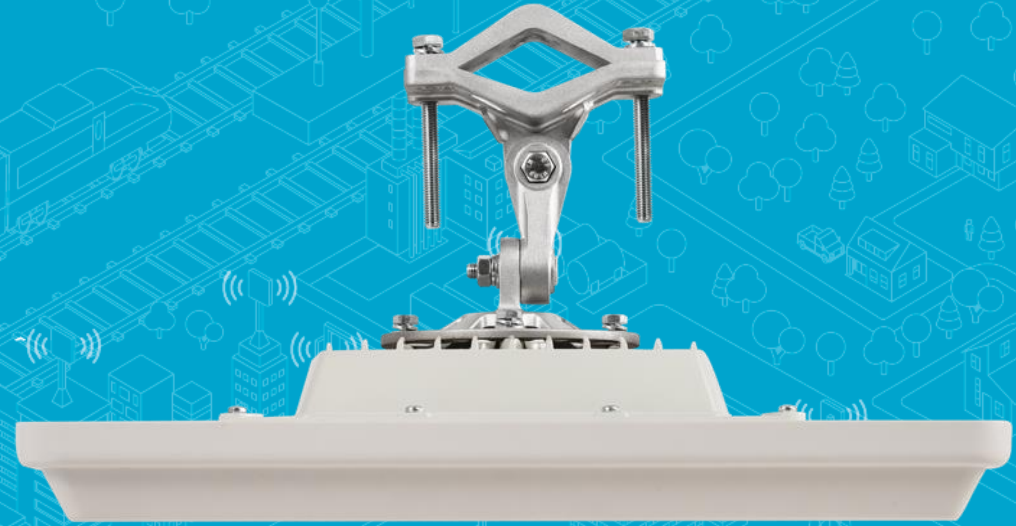
Product Portfolio Overview,
2021

About



Infinet Wireless

The world's leading developer and manufacturer of Broadband Wireless Access solutions which are used to create carrier-grade wireless backbones and access networks for service providers.



More than 500,000
deployments in
over 130 countries



2,300 square
meters of own
production facilities



180
employees



30 offices around
the world, in the
strategically
important
countries



100+ major
distributors all over
the world

Infinet Wireless Solutions

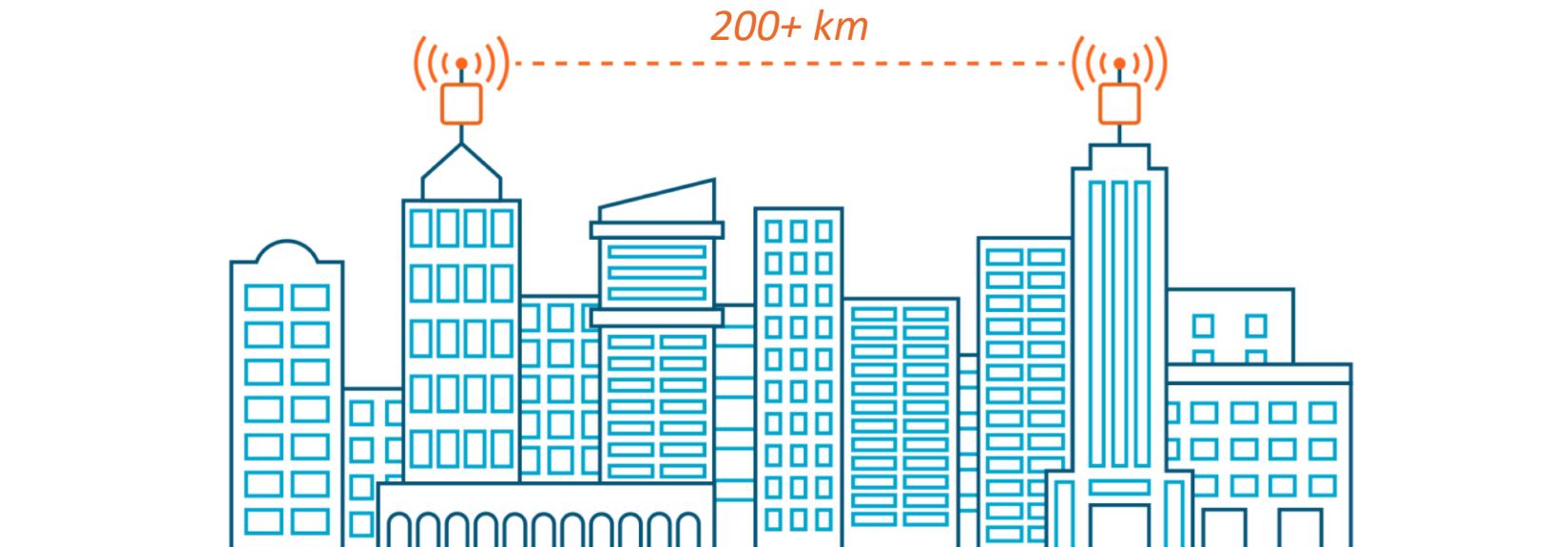


A complete range of wireless solutions for both PtP and PtMP fixed wireless deployments

Point-to-Point Wireless Solution



- 1 Real throughput – **up to 1 Gbps**
- 2 Single hop distance – **200+ km**
High-gain external antennas
- 3 Unlimited number of hops
- 4 Full QoS support
- 5 LOS/nLOS/NLOS connectivity
- 6 Flexible frequency planning



Quanta 5 & Quanta 6 – high-powered spectral efficient PtP solutions



- 1 Outstanding performance in high interference environments
- 2 Consume 30% less spectrum for the same capacity
- 3 Transmit power in a top-speed mode is 6 dB higher than other solutions

Quanta 5 & Quanta 6 help to build a high capacity last mile or a backhaul in a noisy environment.

NEW Octopus SDR



Quanta 70 – interference-less last mile access



- 1 Advanced radio signal processing algorithms ensure the wireless link robustness to precipitation
- 2 Extremely accurate and easy adjustment on azimuth and elevation thanks to precision mounting kit and RSSI indicator
- 3 Small form factor model allows low visual impact deployments

Quanta 70 has been designed for the last mile access and “light” trunk channels in the 70.5–76 GHz frequency range with the throughput of up to 480 Mbps.

NEW

Octopus SDR



InfiLINK Evolution – next generation system for last mile access







- 1 Works in 4.9–6.4 GHz frequency bands
- 2 Thanks to a built-in firewall and rich security features, traffic safety is under control
- 3 Create expert-level network design with advanced switching and routing features

InfiLINK Evolution allows building stable high-capacity last mile access in 4.9–6.4 GHz bands. It comes with network router functionality, security features, traffic shaping and prioritization.







Infinet Wireless Point-to-Point Portfolio at a Glance



Product Family	Key Features	Frequency Bands
InfiLINK XG 1000 	<ul style="list-style-type: none">• Transmit power up to 25 dBm• Net throughput up to 1 Gbps• 2xGigabit Ethernet & SFP interfaces• TDD sync	<ul style="list-style-type: none">• 5 GHz
Quanta 5 & Quanta 6 	<ul style="list-style-type: none">• Transmit power up to 27 dBm• Net throughput up to 650 Mbps• Gigabit Ethernet & SFP interfaces	<ul style="list-style-type: none">• 5 GHz• 6 GHz
Quanta 70 	<ul style="list-style-type: none">• Transmit power up to 11 dBm• Net throughput up to 480 Mbps• Gigabit Ethernet & SFP interfaces	<ul style="list-style-type: none">• 70 GHz
InfiLINK Evolution 	<ul style="list-style-type: none">• Transmit power up to 25 dBm• Net throughput up to 670 Mbps• Gigabit Ethernet interface	<ul style="list-style-type: none">• 5 GHz• 6 GHz






InfiLINK XG 1000 Product Portfolio



Models	Xm			Um
				
5 GHz	23 dBi 25 dBm	26 dBi 25 dBm	28 dBi 25 dBm	2x type-N 25 dBm
Capacity	QAM16: up to 370 Mbps; QAM64: up to 630 Mbps; QAM256: up to 1000 Mbps			
Channel Widths	2x10/2x20/2x40 MHz			
Duplex Modes	TDD Hybrid FDD			
TDD Sync	Via built-in or external (ANT-SYNC) GPS receiver			
Ethernet	2x Gigabit Ethernet, SFP interface			
Distance	10–20 km (max 25 km)	12–30 km (max 40 km)	15–40 km (max 50 km)	60+ km

Quanta 5 & Quanta 6 Product Portfolio



	Q5-18 Q6-18	Q5-23	Q5-25 Q6-25	Q5-28 Q6-28	Q5-E Q6-E
Models					
5 GHz	18 dBi 27 dBm	23 dBi 27 dBm	25 dBi 27 dBm	28 dBi 27 dBm	2x type-N 27 dBm
6 GHz	18 dBi 27 dBm		25 dBi 27 dBm	28 dBi 27 dBm	2x type-N 27 dBm
Capacity	650 Mbps				
Instant DFS	Supported, 5 GHz only				
Channel Widths	3.5/5/7/10/14/15/20/28/30/40/50/56 MHz				
Duplex Modes	TDD, Hybrid FDD (5 GHz only)				
Network Functionality	VLAN, QoS				
Ethernet	1x Gigabit Ethernet	Combo: 1xGE(RJ45), 1xSFP			
Distance	Up to 20 km	Up to 40 km	Up to 60 km	Up to 80 km	200+ km

Quanta 70 Product Portfolio








Models	Q70-39	Q70-50
Frequency range	70.5–76 GHz	
Antenna gain Transmit power	39 dBi 11 dBm	50 dBi 11 dBm
Capacity	480 Mbps	
Channel Widths	125 MHz	
Duplex Mode	TDD	
Interference Mitigation Techniques	ARQ	
Network Functionality	VLAN, QoS	
Ethernet	Combo: 1x Gigabit Ethernet port (RJ45), 1x SFP	
Distance	Up to 10 km	Up to 20 km



InfiLINK Evolution Product Portfolio



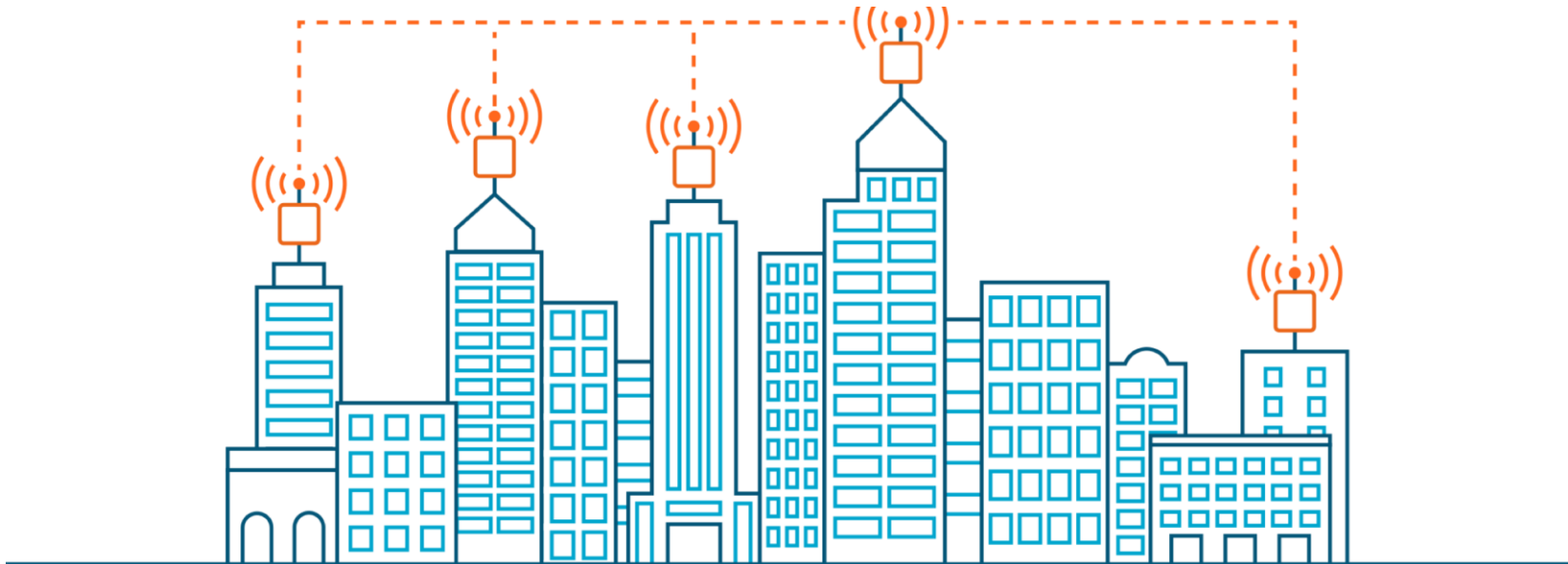
	E5-ST18 E6-ST18	E5-ST23	E5-ST25 E6-ST25	E5-ST28 E6-ST28	E5-STE E6-STE
Models					
5 GHz	18 dBi 25 dBm	23 dBi 25 dBm	25 dBi 25 dBm	28 dBi 25 dBm	2x type-N 25 dBm
6 GHz	18 dBi 25 dBm		25 dBi 25 dBm	28 dBi 25 dBm	2x type-N 25 dBm
Capacity	670 Mbps				
Channel Widths	20/40/80 MHz				
Duplex Modes	TDD				
Interference Mitigation Techniques	ARQ				
Network Functionality	VLAN, QoS				
Ethernet	1x Gigabit Ethernet				
Distance	Up to 10 km	Up to 15 km	Up to 20 km	Up to 30 km	40+ km

* Roadmap item

Point-to-Multipoint Wireless Solution



- 1 BS sector coverage: up to **40 km**
- 2 Sector Capacity: up to **800 Mbps**
- 3 Subscriber terminal capacity: in excess of **670 Mbps**
- 4 **TDD** synchronization and frequency reuse
- 5 **QoS** support
- 6 Sophisticated **L2/L3/L4 networking** functionality
- 7 **Interference mitigation** tools



InfiMAN Evolution – highly secured next-generation PtMP solution








- 1 Subscriber terminals work in 4.9–6.4 GHz frequency bands
- 2 Thanks to a built-in firewall and rich security features, traffic safety is under control
- 3 Value for money thanks to advanced switching and routing features
- 4 Compatible with base station sectors and subscriber terminals of the previous generation
- 5 Cost-effective base station for low-density sectors

InfiMAN Evolution allows to build stable high-capacity connectivity in 4.9–6.4 GHz bands. It comes with rich network router functionality, security features, traffic shaping and prioritization.








Base Station Sectors InfiMAN Evolution at a Glance



Product Family	Key Features	Key Features
InfiMAN Evolution E-BSI 	<ul style="list-style-type: none"> • Integrated 90 deg sector antenna • Sector throughput up to 800 Mbps • Gigabit Ethernet interface & SFP & SYNC 	<ul style="list-style-type: none"> • 5 GHz • 6 GHz
InfiMAN Evolution E-BSI-L 	<ul style="list-style-type: none"> • Integrated 90 deg sector antenna • Sector throughput up to 360 Mbps • Gigabit Ethernet interface & SFP & SYNC 	<ul style="list-style-type: none"> • 5 GHz
InfiMAN Evolution E5-BSQ 	<ul style="list-style-type: none"> • Integrated 90 deg sector beamforming antenna • Sector throughput up to 800 Mbps • Gigabit Ethernet interface & SFP & SYNC 	<ul style="list-style-type: none"> • 5 GHz
InfiMAN Evolution E-BSE 	<ul style="list-style-type: none"> • External antenna • Sector throughput up to 800 Mbps • Gigabit Ethernet interface & SFP & SYNC 	<ul style="list-style-type: none"> • 5 GHz • 6 GHz
InfiMAN Evolution E-BSE-L 	<ul style="list-style-type: none"> • External antenna • Sector throughput up to 360 Mbps • Gigabit Ethernet interface & SFP & SYNC 	<ul style="list-style-type: none"> • 5 GHz






InfiMAN Evolution Base Station Sectors



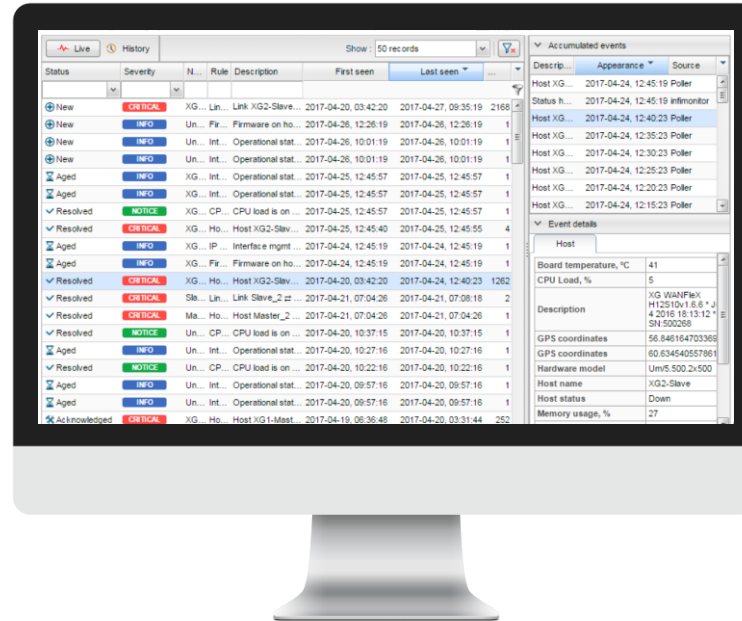
	E5-BSI E6-BSI	E5-BSQ	E5-BSE E6-BSE	E5-BSI-L	E5-BSE-L
Models					
5 GHz	16 dBi, 90° 27 dBm	21 dBi, 90° 25 dBm	2x type-N 27 dBm	16 dBi, 90° 27 dBm	2x type-N 27 dBm
6 GHz	16 dBi, 90° 25 dBm		2x type-N 25 dBm		
Capacity	Up to 800 Mbps, net			Up to 360 Mbps, net	
Channel Widths	20/40/80 MHz			20/40 MHz	
Modulation coding schemes	9 MCS – from BPSK 1/2 to QAM256 5/6				
Duplex scheme	TDD				
Ethernet	Gigabit Ethernet & SFP & SYNC				

InfiMAN Evolution Subscriber Terminals



	E5-ST18 E6-ST18	E5-ST23	E5-ST25 E6-ST25	E5-ST28 E6-ST28	E5-STE E6-STE
Models					
5 GHz	18 dBi 25 dBm	23 dBi 25 dBm	25 dBi 25 dBm	28 dBi 25 dBm	2x type-N 25 dBm
6 GHz	18 dBi 25 dBm		25 dBi 25 dBm	28 dBi 25 dBm	2x type-N 25 dBm
Capacity	20/50/670 Mbps, net (20/50/670 Mbps bitrate) – license upgradeable				
Channel Widths	20/40/80 MHz				
Modulation coding schemes	9 MCS – from BPSK 1/2 to QAM256 5/6				
Duplex scheme	TDD				
Ethernet	1x Gigabit Ethernet				

InfiMONITOR



Key features

Host data

- Display of key parameters values in real time

Link data

- Ability to view detailed information about downlink and uplink streams

Incidents

- Display of events in the feed with priority and object for which the event was created
- Ability to assign individual rules for creating events for different groups of hosts
- Email notifications about events to the employees in charge

Charts

- Charts with different parameters for hosts and links within arbitrary period of time

Automatic discovery

- Automatic discovery and adding of hosts and links from the same MINT network

Management & Operations



Unit Level

Web GUI

- ▶ Device settings
- ▶ Detailed statistics and diagnostics data
- ▶ Visual spectrum analysis, antenna alignment and throughput measurement

- ▶ Maintenance:
 - configuration/firmware upload/backup
 - factory reset
- ▶ Secure access using HTTPS protocol

Telnet/SSH

- ▶ In-depth configuration, diagnostics, monitoring and maintenance for advanced users, full functionality available

Network Level

InfiMONITOR – monitoring system

- ▶ Display of the wireless network structure with metrics about hosts and links in real time on the network map
- ▶ Creation of diagrams based on different parameters of hosts and links
- ▶ Automatic tracking of changes and creation of events according to the configured rules
- ▶ Email notifications to the employees in charge about critical events
- ▶ Lists of hosts and links with ability to view values of all parameters
- ▶ Automatic discovery of hosts and connections between them using WANFlex OS features, which provide information on neighboring hosts

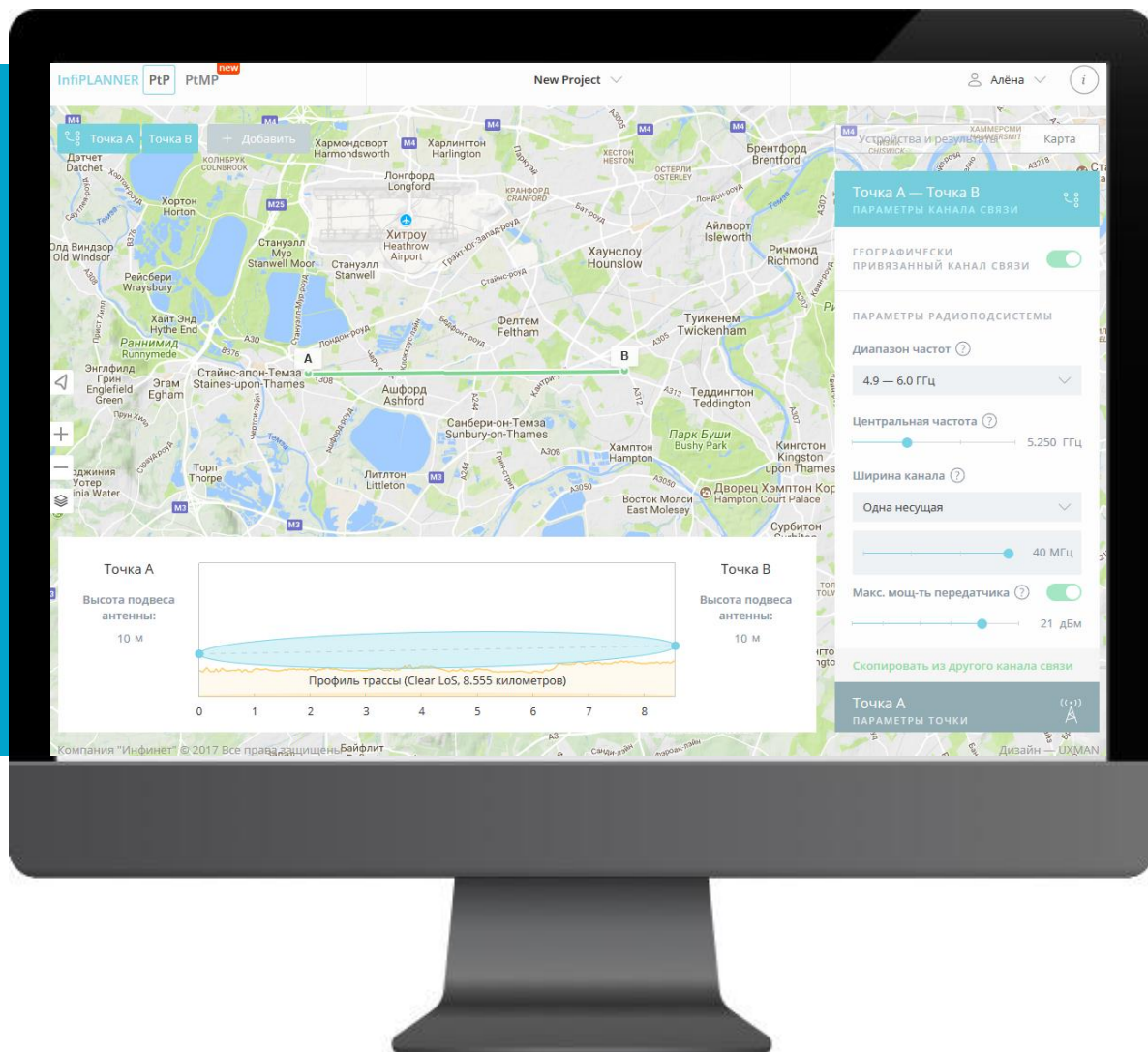
Radio Planning



InfiPLANNER

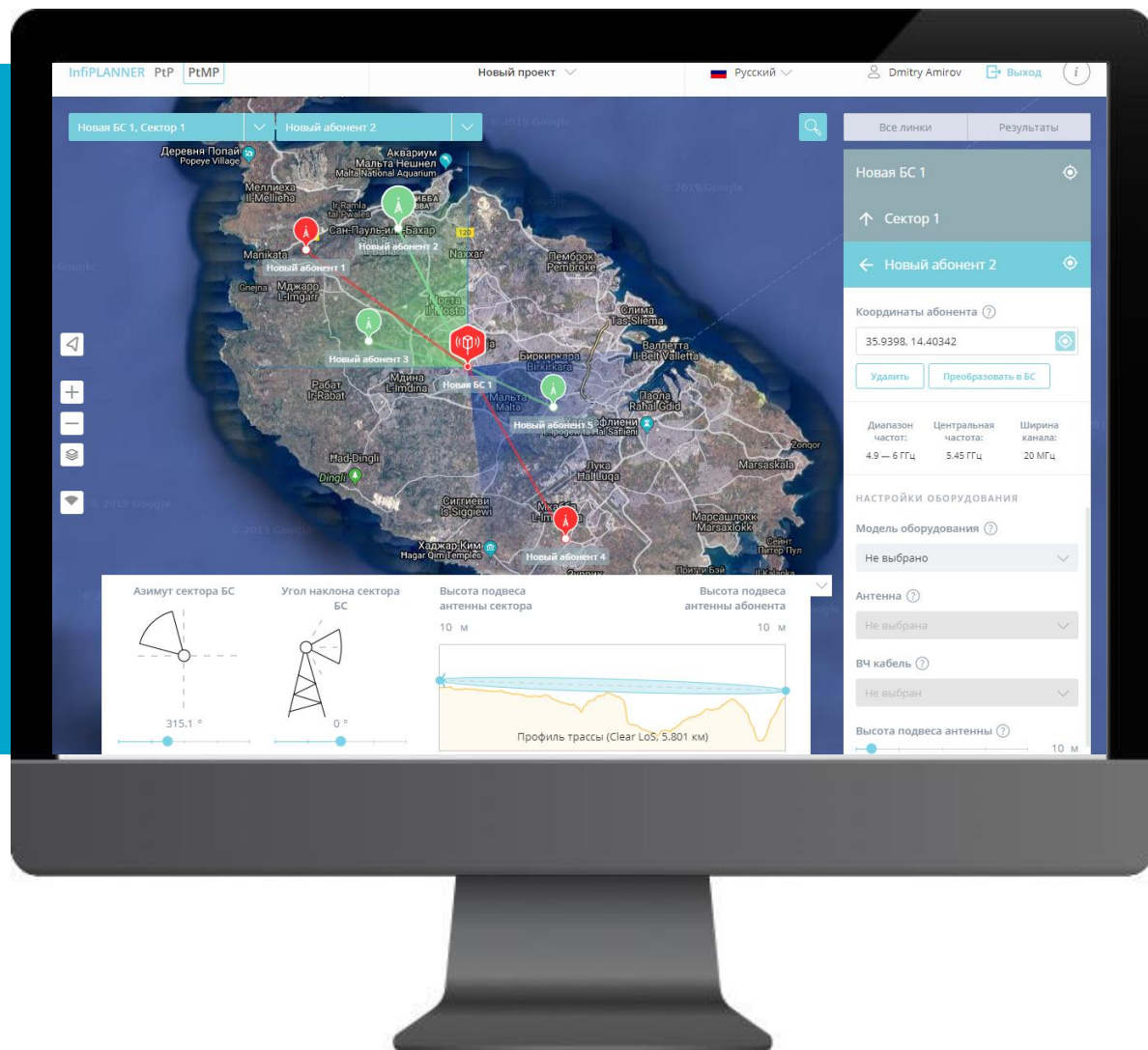
- ▶ Web-based PtP & PtMP estimation tool
- ▶ Key features:
 - Visual planning based on Google Maps integration
 - Complex radio propagation model ITU-R and Longley-Rice
 - Relief and Fresnel zone visualization
 - Throughput, link availability and expected modulation estimations
 - Detailed reporting
 - Assembling guide in PDF (PtP mode only)
- ▶ Available at <http://infiplanner.infinetwireless.com>

InfiPLANNER



Point-to-Point

InfiPLANNER



Point-to-Multipoint

TDD synchronization hub AUX-ODU-SYNC



Description

- In combination with Infinet's new proprietary TDMA-based wireless architecture, AUX-ODU-SYNC completes the solution, providing TDD synchronization to its systems, both legacy and newly deployed
- Provides positioning and precise timing reference to InfiMAN Evolution BS sectors
- TDD synchronization eliminates self-interference between multiple co-located units and enables frequency re-use within the same site
- Embedded GPS/GLONASS receiver and active antenna
- Provides GNSS-based timing reference
- Supports intra-site and inter-site synchronization, thanks to the GNSS based timing reference
- Providing geopositioning information and UTC time



TDD synchronization hub AUX-ODU-SYNC



Specifications

GNSS receiver	<ul style="list-style-type: none">• embedded, GPS/GLONASS
GNSS antenna	<ul style="list-style-type: none">• embedded, active
Water and Dust Protection	<ul style="list-style-type: none">• IP66 and IP67
DC Input Range	<ul style="list-style-type: none">• $\pm 19.. \pm 56V$
Power consumption	<ul style="list-style-type: none">• up to 4W
Connectors and interfaces	<ul style="list-style-type: none">• Port 0-6: sync outs• Power: DC input
Size and Weight	<ul style="list-style-type: none">• 180x170x75mm, 0.65 kg

Cabling

Specialized CAB-SYNC-E cables must be used to connect AUX-ODU-SYNC to the units.



Active antenna ANT-SYNC



Description

- Compatible with InfiLINK XG 1000 series outdoor units
- Designed to filter and amplify RF signals received from global navigation satellite systems (GNSS) and feed them to a GNSS receiver at InfiLINK XG 1000 family outdoor units
- It protects the receiver from interference coming from co-located 3G/LTE BTSs, which would make GNSS signals irrecoverable otherwise
- TDD synchronization allows multiple co-located units to operate co-channel or use adjacent channels thus achieving frequency re-use and eliminate self-interference. Because of GNSS-based timing reference, both intra-site and inter-site synchronization can be supported



Active antenna ANT-SYNC



Specifications

GNSS antenna	Embedded, active
Water and Dust Protection	IP66 and IP67
DC Input Range	+5 V
Size and Weight	180x170x72 mm, 0.36 kg

Assembling

Mounting kit is supplied by default with ANT-SYNC



Indoor AC/DC injector IDU-CPE



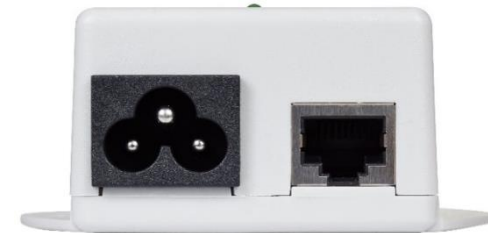
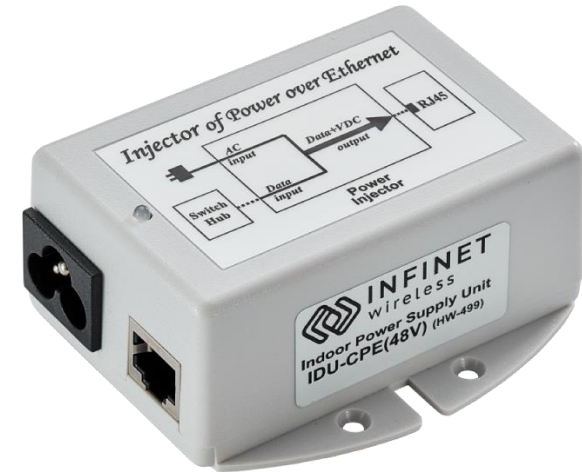
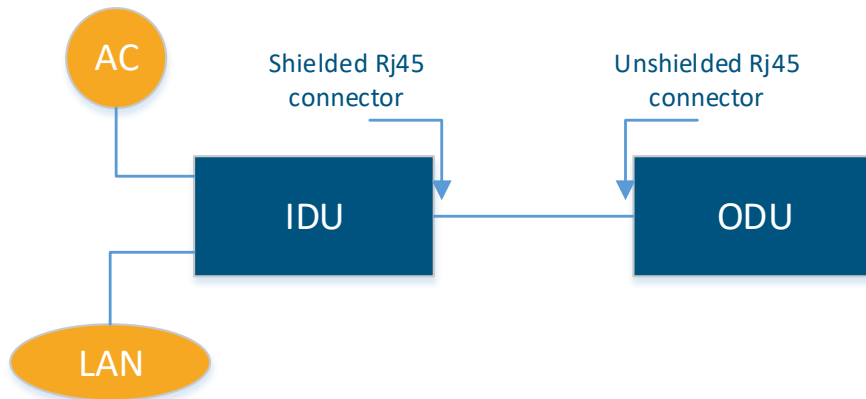
Description

Indoor AC/DC PoE injector. Compatible with AUX-ODU-SYNC. Has integrated lighting protection.

Specifications

AC input	100–240V, 0.5A, 47–63Hz
DC output	48V, 0.8A
Power consumption	24 W

Connection scheme



Indoor AC/DC injector IDU-BS-G(60W)



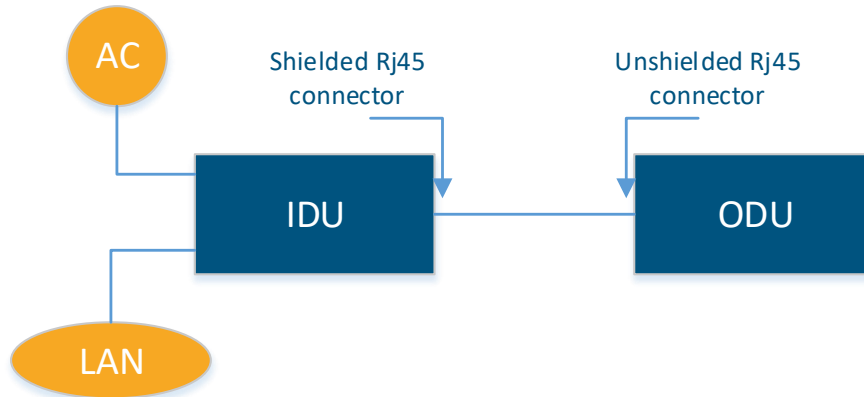
Description

Indoor AC/DC PoE injector. Compatible with all Infinet Wireless units.

Specifications

AC input	100–240V, 1.02A, 47–63Hz
DC output	55V, 1.1A
Power consumption	60W

Connection scheme



Indoor AC/DC injector IDU-CPE-G(24W)



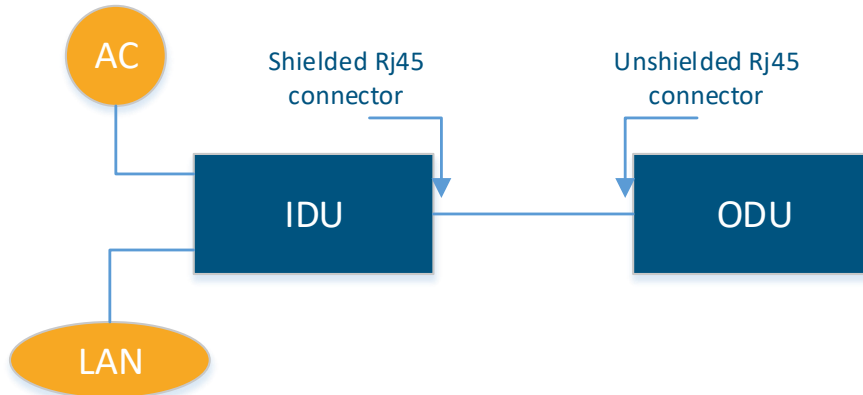
Description

Indoor AC/DC PoE injector. Compatible with Quanta 5, Quanta 6, Quanta 70, InfiLINK Evolution, InfiMAN Evolution CPE families and AUX-ODU-SYNC.

Specifications

AC input	100–240V, 0.75 A, 50–60 Hz
DC output	+48V, 0.5A
Power consumption	28 W

Connection scheme



Indoor DC/DC injector IDU-LA-G(V.01)



Description

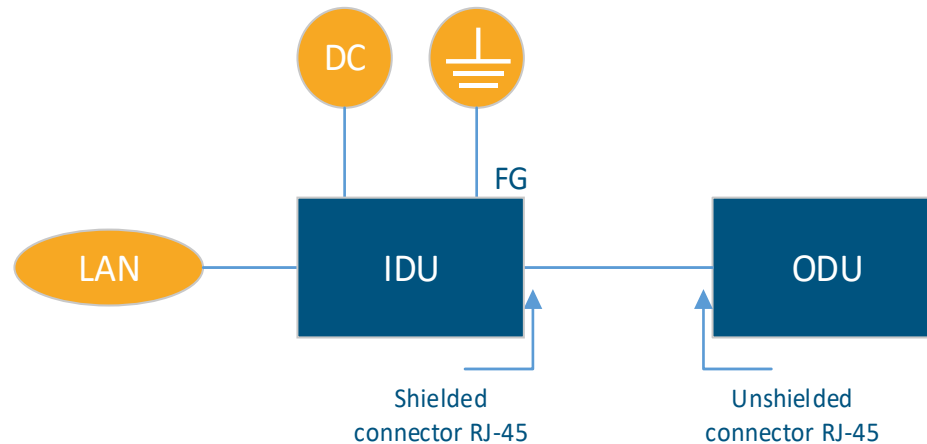
Indoor DC/DC PoE injector. Compatible with all Infinet Wireless units and AUX-ODU-SYNC. Has integrated lightning protection.

Specifications

DC Input $\pm 43\text{--}56\text{V}$ / $+9\text{--}56\text{V}$

DC Output same as input

Connection scheme



Outdoor DC injector AUX-ODU-INJ-G



Description

- Compatible with all Infinet Wireless outdoor units and AUX-ODU-SYNC.
- It greatly reduces complexity of the deployment in the cases where DC source is available on the rooftop eliminating the need of weather sealed cabinets

Specifications

DC Input	±43–56V / +9–56V
DC Output	same as input
Connectors	<ul style="list-style-type: none">• ETH IN – Ethernet input• ETH OUT – Ethernet output (data+VDC, protected leg)• GND – ground clamp• PWR – DC Input
Supported Ethernet Modes	10/100/1000 Mbps (Gigabit Ethernet pass-through)
Water and Dust Protection	IP66 and IP67
Lightning protection	GR-1089



Lightning Protection Unit AUX-ODU-LPU-L



Description

- It's an optional outdoor Lightning Protection Unit (LPU) for Infinet Wireless systems designed to withstand the toughest conditions and protect the outdoor or the indoor unit from sudden power surges induced by lightning strikes
- Despite the fact every Infinet radio has a built-in lightning protection, AUX-ODU-LPU-L, thanks to its superior GR-1089-grade protection, greatly reduces the risk of replacing damaged devices operating in harsh environments or difficult-to-reach locations
- Compatible with all Infinet products

Specifications

Connectors	<ul style="list-style-type: none">• 2 x Ethernet ports• GND – ground clamp
Supported Ethernet Modes	<ul style="list-style-type: none">• 10/100/1000 Mbps (Gigabit Ethernet pass-through)
Water and Dust Protection	<ul style="list-style-type: none">• IP66 and IP67
Lightning protection	<ul style="list-style-type: none">• GR-1089



External high gain antennas



Description

- Used for:
 - Long PtP hauls
 - High availability channels
 - High-MSK PtP and PtMP links

Specifications

Frequency band	4.9–6.5 GHz	4.9–6.1 GHz	5.7–6.5 GHz
Gain	33 dBi	34 dBi	35 dBi
Polarization	Dual (H+V)	Dual (H+V)	Dual (H+V)
Size	Ø 1.0m	Ø 1.2m	Ø 1.2m
Weight	16 kg	18 kg	18 kg
Connectors	2x type-N (F)	2x type-N (F)	2x type-N (F)



Universal mounting kit MONT-KIT-85



Specifications

- Part of standard packing list
- Allows reliable and easy installation of the unit with two-axis adjustment
- Compatible with all Infinet Wireless units, except Quanta 70

Assembling

- Standard pole
- Wall
- Thick pipe (vertical/horizontal)



High precision mounting kit MONT-KIT-85P



Specifications

- Allows reliable and easy installation and enables extremely accurate adjustment on azimuth and elevation for optimal wireless link performance
- Especially suitable for installing high-gain antenna models that have a narrow beam
- Compatible with all Infinet units except Quanta 70 family

Assembling

- Standard pole
- Wall
- Thick pipe (vertical/horizontal)



Cables



Synchronization cable CAB-SYNC-E-XX

- Designed to connect InfiMAN Evolution BS to the synchronization AUX-ODU-SYNC
- Cable length is specified in the purchased order

RF Cable CAB-RF-1M

- Cable for external antenna connection

Cable CAB-SL-XX-TOP

- Designed to connect the outdoor and indoor units.
- Possible options:
 - CAB-SL-XX-TOP-X - for InfiLINK XG 1000 models.
 - CAB-SL-XX-TOP-Q - for Quanta 5, Quanta 6, InfiLINK Evolution, InfiMAN Evolution CPE.
 - CAB-SL-XX-TOP-A - for Quanta 70, InfiMAN Evolution BS.

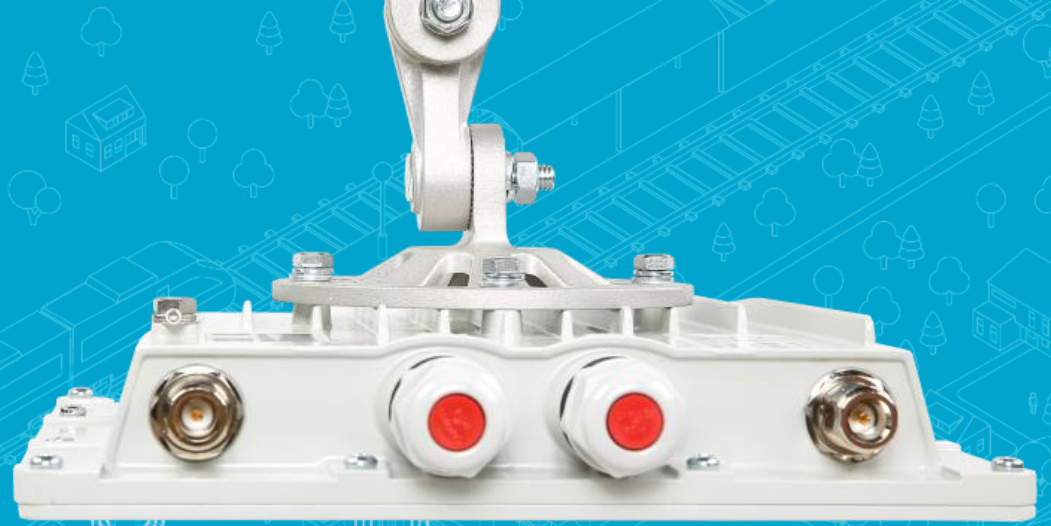


Legacy products



End of Sale families	Suitable available families
InfiLINK XG 2 3 4 GHz	–
InfiLINK XG 5 GHz	Quanta 5
InfiLINK XG 6 GHz	Quanta 6
InfiLINK 2x2 3 GHz	–
InfiLINK 2x2 5 GHz	InfiLINK Evolution 5 GHz 6 GHz
InfiLINK 2x2 6 GHz	InfiLINK Evolution 6 GHz
InfiMAN 2x2 3 GHz	–
InfiMAN 2x2 BS 5 GHz	InfiMAN Evolution BS 5 GHz
InfiMAN 2x2 BS 6 GHz	InfiMAN Evolution BS 6 GHz
InfiMAN 2x2 CPE 5 GHz	InfiMAN Evolution CPE 5 GHz 6 GHz
InfiMAN 2x2 CPE 6 GHz	InfiMAN Evolution CPE 6 GHz

Infinet's highlights



Outstanding solutions with the best performance



Thousands of successful deployments around the world



One of the world's Top 5 FBWA equipment manufacturers



Product development in our own world-class laboratory



Universal solutions for various industry sectors



INFINET
wireless

Thank you!

 www.infinetwireless.com

 +356 2034-15-14

 sales@infinetwireless.com