



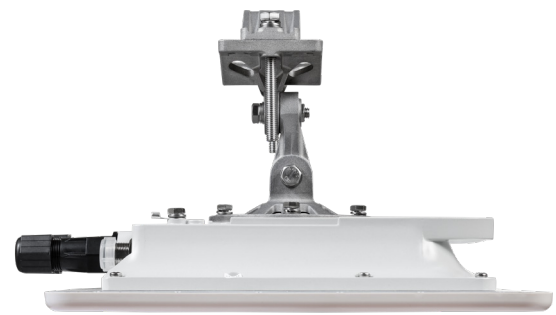
# InfiLINK XG 1000

**InfiLINK XG 1000** is a brand new range of products that accommodates escalating requirements for speed, reliability and flexibility. It can provide throughput of up to 1 Gbps over the air in 5 GHz license-free frequency bands. **InfiLINK XG 1000** was specifically designed to deliver superior performance over long distances and in extremely adverse environments including nLOS and NLOS scenarios. The InfiLINK XG 1000 family units harmoniously complements the **InfiLINK XG** and enables to meet accelerating demand for cost-effectively capacity under rapidly evolving conditions.

**InfiLINK XG 1000** uses two non-adjacent channels that gives a great advantage compared to 802.11ac systems. Available with a wide range of integrated antennas, as well as a connectorized version for use with 3rd party external antennas, the **InfiLINK XG 1000** family is the ideal choice for a large array of applications such as backhaul in the telecom market, education, oil and gas, smart cities, video surveillance and public safety. It was designed by Infinet Wireless to meet the exact requirements of the most demanding customers, most complex projects and most challenging environments.

## Applications

- ▶ High capacity short-, medium- and longhaults for mobile operators and service providers
- ▶ Full-fledged fibre/FSO/mm-wave systems replacement, extension or backup
- ▶ LOS and NLOS macro- and small-cell LTE backhaul
- ▶ Digital oilfields connectivity
- ▶ Connecting clusters of CCTV cameras to the monitoring centres
- ▶ Rapid deployment of network infrastructure



# Top Facts Sheet

## ✓ HIGHEST SPECTRAL EFFICIENCY

Best-in-breed up to 12.5 bps/Hz  
Highest order QAM256 and QAM1024 modulations

## ✓ SUPERIOR PERFORMANCE AND PROCESSING POWER

Transparent L2 transport for Ethernet traffic of any type  
Real throughput up to 500 Mbps in 2x20 MHz channel and up to 1000 Mbps in 2x40 MHz

## ✓ ULTRA-LOW LATENCY

Ultra-low consistent 1.5 ms latency at any distance  
Configurable frame size

## ✓ LONG RANGE LINKS

Connectivity at the distances of more than 60 km with external antennas  
High-power transmitter and improved sensitivity even at highest modulations, ensuring maximal link budget  
Unprecedented system gain of 173 dB even with integrated antennas

## ✓ SEEMLESS INTEGRATION

Extended QoS support  
Two Gigabit Ethernet ports  
SFP optical port  
Built-in full-fledged L2 switch supporting VLAN and Spanning Tree Protocol

## ✓ FLEXIBILITY

Available in connectorized configuration and with integrated from 23 to 28 dBi flat-panel dual-polarity antennas  
Easy-to-align and easy-to-install  
Fully configurable uplink/downlink ratio  
Very small footprint

## ✓ IMPROVED NOISE IMMUNITY / INTERFERENCE AVOIDANCE

TDD synchronization using a built-in GNSS receiver

## ✓ RELIABILITY & ROBUSTNESS

Ruggedized aluminium cast IP66 and IP67 enclosure  
Extended temperature range of -40°C to +60°C, with 100% humidity  
No link degradation even in harsh weather conditions  
Built-in surge protection

# Technical Specifications




PERFORMANCE	
Throughput	Up to 1 Gbps, net aggregate
Packet performance	More than 1.6 million packets per second (line rate)
Latency	1.5 - 5 ms one-way, typical (depending on air frame period)
RADIO TECHNOLOGY	
Modulation	Cyclic single carrier
Cyclic prefix	1/8 and 1/16 (for 2x20 and 2x40 MHz channel width)
Modulation schemes	Eleven modulation/coding schemes from QPSK to QAM256, as well as QAM1024
Frequency range	4.9 - 6.0 GHz
Channel widths	2x10, 2x20 and 2x40 MHz
Spectral efficiency	Up to 12.5 bps/Hz
Transmit power	Up to 25 dBm (average, per Tx chain) @ QPSK to QAM64 Up to 22 dBm @ QAM256 Up to 20 dBm @ QAM1024
Receiver sensitivity	down to -92 dBm @ 2x10 MHz, QPSK
System gain	Up to 173 dB (based on a 28 dBi integrated antenna in 2x10 MHz channel width)
Duplex Scheme	TDD, Hybrid-FDD
Antenna	- Integrated: dual-polarization flat panel 23, 26, 28 dBi - Connectorized: 2x N-type (Female) connectors for external dual-polarization antenna
Maximal range	Up to 60 km (clear line-of-sight with external antennas)
AIR PROTOCOL	
Air frame	Configurable, from 2 to 10 ms
Downlink/uplink ratio	Configurable, from 50:50 to 90:10 at both uplink and downlink. Available values are determined in each case individually depending on the following parameters: channel width, Short Cyclic Prefix, frame period and max distance
Automatic modulation control	Fully supported
Automatic ranging	Fully supported
TDD synchronization	Fully supported, via built-in GNSS receiver
WIRED INTERFACES	
Ethernet	2x 10/100/1000-BaseT copper ports, RJ-45: GE0 – Data+PoE input GE1 – Data only SFP port: various 3rd party single and multi-mode fibre module supported Either of the ports can be configured independently for management, user data or for a hybrid mode
PoE	Proprietary PoE
Cable length	Copper Ethernet cable length: up to 100 m between outdoor unit and the primary network connection Fibre cable length: up to 300 m or more depending on the SFP module type
QOS AND NETWORK PROTOCOLS	
QoS	4 queues
Prioritization	«Strict» and «Weighted Round Robin» modes
Packet classification	802.1p
Network protocols	VLAN, STP

# InfiLINK XG 1000

MANAGEMENT AND INSTALLATION	
LED Indication	Power status, wireless and wired link status, RSSI indication, TDD sync status
Management Protocols	HTTP, HTTPS, SSH, Telnet, SNMP v1/2c/3 (MIB-II and proprietary MIBs)
Web GUI Tools	Antenna Alignment Tool, Spectrum Analyzer
PHYSICAL	
Weight and dimensions	Please refer to the model matrix below
Operating temperature range	from -40°C to +60°C (-55..+60°C models with index "t" in PN)
Dust and water protection	IP66, IP67
Wind load	160 km/h, operational; 200 km/h, survival
Power supply	IDU-BS-G(60W): 90-220 VAC, 50/60 Hz, -10°C to +40°C, 151x62x38 mm, 0.32 kg
Input DC range	±43 to ±56 VDC
Consumption	Up to 55 W
ACCESSORIES	
Mount Kit	MONT-KIT-85 or MONT-KIT-85s
DC Injector	AUX-ODU-INJ-G (indoor/outdoor installation), IDU-LA-G (V.01) (indoor installation)
External Lightning Protection	AUX-ODU-LPU-G, AUX-ODU-LPU-L
GPS/GLONASS Antenna	ANT-SYNC
COMPLIANCE	
Safety	EN 60950-1:2006, UL 60950-1 2nd ed.
Radio (pending)	EN 301 893 v.2.1.1, EN 302 502, v.2.1.1, FCC part 15.247
EMC	ETSI EN 301 489-1, ETSI EN 301 489-17, FCC Part 15 Class B
RoHS	Directive 2011/65/EU
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## MODEL RANGE

### Integrated Antenna Models

PART NUMBER	FREQUENCY RANGE	INTEGRATED ANTENNA	WEIGHT AND SIZE	
Xm/5X.1000.4x300.2x23	4900-6000 MHz	Flat-panel, 23 dBi, 10x10 deg	305x305x67 mm 2.4 kg	
Xm/5X.1000.4x300.2x26	4900-6000 MHz	Flat-panel, 26 dBi, 8x8 deg	371x371x89 mm 3.3 kg	
Xm/5X.1000.4x300.2x28	4900-6000 MHz	Flat-panel, 28 dBi, 5x5 deg	600x600x74 mm 6.3 kg	

### External Antenna Models

PART NUMBER	FREQUENCY RANGE	ANTENNA CONNECTION	WEIGHT AND SIZE	
Um/5X.1000.4x300	4900-6000 MHz	2xN-type (Female)	256x240x86 mm 2.1 kg	