

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 longhauls 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

© 2020 INFINET wireless

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

The content herein is subject to change without further notice



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: GEO – 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		
РоЕ	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		
RoHS	Directiva 2011/65/EU		

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	

