



InfiLINK XG

InfiLINK XG is Infinet's most recent addition to our wireless portfolio.

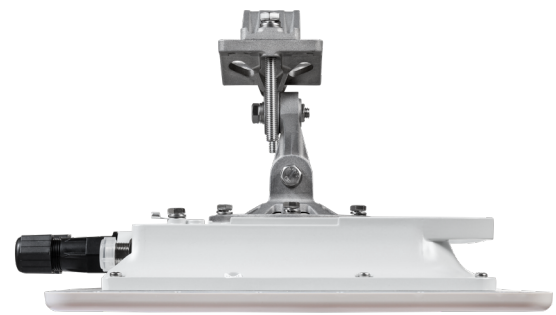
It is a record-breaking and innovative Point-to-Point solution in the sub-7 GHz frequency band, boasting the best-in-breed spectral efficiency, higher-than-ever-before processing power and distance vs. performance ratio. Reaching a peak of 500 Mbps of net throughput in 40 MHz of spectrum, and more than 130 Mbps in only 10 MHz, it is the fastest Point-to-Point system available in the marketplace today.

Available with a wide range of integrated antennas, as well as a connectorized version for use with 3rd party external antennas, and coupled with improved transmit power and sensitivity, the XG family will fit perfectly into 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 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 3g/4g operators and service providers
- ▶ Full-fledged fibre/fso/millimetrewave replacement, extension or backup
- ▶ Los and nlos macro- and small-cell backhaul
- ▶ Video surveillance over medium and long distances
- ▶ Disaster recovery
- ▶ Building-to-building connectivity
- ▶ Rural/suburban last mile access

Top Facts Sheet



- ✓ **HIGHEST SPECTRAL EFFICIENCY**
Best-in-breed up to 14 bps/Hz
Real throughput up to 130 Mbps in just 10 MHz of spectrum
Innovative radio technology for NLOS and reflected signal conditions
- ✓ **SUPERIOR PERFORMANCE AND PROCESSING POWER**
Unmatched 1 million packets-per-second processing power
Full capacity at any packets sizes and for any type of traffic
- ✓ **UNMATCHED CAPACITY**
Net performance of 250 Mbps in 20 MHz and 500 Mbps in 40 MHz
- ✓ **LONG RANGE LINKS**
Connectivity at the distances of up to 100 km
Guaranteed availability with the range of over 60 km using integrated antenna units
- ✓ **IMPROVED NOISE IMMUNITY / INTERFERENCE AVOIDANCE**
Instant DFS technology allows automatic frequency channel change with zero downtime
Background spectrum scan
On-site synchronization for best spectrum utilization
High-selectivity receiver with channel filtering cuts off in-band interference (2 and 3 GHz models only)
- ✓ **FLEXIBILITY**
Available in connectorized configuration and with integrated from 22 to 28 dBi flat-panel dual-polarity antennas
Easy-to-align and easy-to-install
Fully configurable uplink/downlink ratio
Very small footprint
- ✓ **SEAMLESS INTEGRATION**
Extended QoS support
Two Gigabit Ethernet ports
SFP optical port
Full-fledged L2 switching
- ✓ **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
- ✓ **ULTRA-LOW LATENCY**
Ultra-low consistent 0.5 ms latency at any distance
Configurable frame size



Technical Specifications

PERFORMANCE	
Throughput	Up to 500 Mbps, net aggregate
Packet performance	More than 1 million packets per second (line rate)
Latency	0.5-3 ms one-way, typical (depending on air frame period)
RADIO TECHNOLOGY	
Modulation	Cyclic single carrier
Cyclic prefix	1/8 and 1/16 (for 20 and 40 MHz channel width)
Modulation schemes	Eleven modulation/coding schemes from QPSK to QAM256, as well as QAM1024
Frequency range	2.0-3.0 GHz 3.0-4.0 GHz 4.0-5.0 GHz 4.9-6.0 GHz 6.0-6.425 GHz
Channel widths	10, 20 and 40 MHz
Spectral efficiency	Up to 14 bps/Hz
Transmit power	Up to 27 dBm (average, per Tx chain, model-dependent) @ QPSK to QAM64 Up to 26 dBm @ QAM256, Up to 18 dBm @ QAM1024 (model-dependent)
Receiver sensitivity	down to -95 dBm @ 10 MHz, QPSK (model-dependent)
System gain	Up to 178 dB (based on a 28 dBi integrated antenna in 10 MHz channel width)
Duplex Scheme	Hybrid-FDD (except 6 GHz models), TDD
Antenna	- Integrated: dual-polarization flat panel 19, 22, 23, 24, 26, 27, 28 dBi (selectable at time of ordering and model-dependent) - Connectorized: 2x N-type (Female) connectors for external dual-polarization antenna
Maximal range	Up to 100 km (clear line-of-sight)
AIR PROTOCOL	
Air frame	Configurable, from 2 to 10 ms
Uplink/downlink ratio	Configurable, from 50:50 to 90:10 in any direction. 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
Instant DFS (5 GHz models only)	Dynamic interference mitigation and avoidance mode: - Background spectrum scan - Seamless automatic uplink/downlink channel change to the least congested frequency available
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 sare 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

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MANAGEMENT AND INSTALLATION

LED Indication	Power status, wireless and wired link status, RSSI indication, TDD sync status
Management Protocols	HTTP, 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 kph, operational; 200 kph, 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 30 W

ACCESSORIES




Spare mounting brackets	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
GPS/GLONASS antenna	ANT-SYNC

COMPLIANCE


Safety	EN 60950-1:2006, UL 60950-1 2nd ed.
Radio	2, 3, 4, 6 GHz: EN 302 326-2 (pending) 5 GHz: EN 301 893 v.1.8.1, EN 302 502, v.1.2.1, 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

MODEL RANGE

Integrated Antenna Models

PART NUMBER	FREQUENCY BAND	INTEGRATED ANTENNA	WEIGHT AND SIZE	
Xm/5X.500.2x500.2x23	4900-6000 MHz	Flat-panel, 23 dBi, 10x10 deg	305x305x67 mm 2.4 kg	
Xm/6X.500.2x500.2x24	6000-6425 MHz	Flat-panel, 24 dBi, 9x9 deg		
Xm/2X.500.2x500.2x19	2300-2900 MHz	Flat-panel, 19 dBi, 17x17 deg	371x371x89 mm 3.3 kg	
Xm/3X.500.2x500.2x22	3100-4010 MHz	Flat-panel, 22 dBi, 12x12 deg		
Xm/4X.500.2x200.2x23	4300-5010 MHz	Flat-panel, 23 dBi, 9x9 deg		
Xm/5X.500.2x500.2x26	4900-6000 MHz	Flat-panel, 26 dBi, 8x8 deg	600x600x74 mm 6.3 kg	
Xm/5X.500.2x500.2x28	4900-6000 MHz	Flat-panel, 28 dBi, 5x5 deg		
Xm/6X.500.2x500.2x27	6000-6425 MHz	Flat-panel, 27 dBi, 5x5 deg		

External Antenna Models

PART NUMBER	FREQUENCY BAND	ANTENNA CONNECTION	WEIGHT AND SIZE	
Um/2X.500.2x500	1990-3010 MHz	2xN-type (Female)	256x240x86 mm 2.1 kg	
Um/3X.500.2x200	2990-4010 MHz			
Um/4X.500.2x200	3990-5010 MHz			
Um/5X.500.2x500	4900-6000 MHz			
Um/6X.500.2x500	6000-6425 MHz			