

Wireless

1000Mbps -5Ghz Point to Point Wireless



XG Series Wireless System

4.9 to 6.4Ghz Wireless System



The Case 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. The Case XG 1000 was specifically designed to deliver superior performance over long distances and in extremely adverse environments including nLOS and NLOS scenarios. The XG 1000 family units harmoniously complements the XG 1000 and enables to meet accelerating demand for cost-effectively capacity under rapidly evolving conditions.

The 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

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XG Fact Sheet



HIGHEST SPECTRAL EFFICIENCY

Best-in-breed up to 14 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 172 dB even with integrated antennas

SEEMLESS INTEGRATION

Extended QoS support

Two Gigabit Ethernet ports

SFP optical port

IEEE 1588v2

Built-in full-fledged L2 switch supporting VLAN and Spanning Tree Protocol

FLEXIBILITY

Available in connectorised 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

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XG 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 QAM 256 as well as QAM 1024
Frequency range	4.9 ~ 6Ghz
Channel widths	2x10, 2x20 and 2x40 MHz
Spectral efficiency	Up to 14 bps/Hz
Transmit power	Up to 22 dBm (average, per Tx chain) @ QPSK to QAM64 Up to 20 dBm @ QAM256 Up to 18 dBm @ QAM1024
Receiver sensitivity	Down to -93 dBm @ 2x10 MHz, QPSK
System gain	Up to 172 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 2 to 10ms
Uplink / downlink ration	Configurable, from 50:50 to 90:10 at both uplink and downlink
Automatic modulation control	Fully Supported
Automatic Ranging	Fully Supported
TDD synchronisation	Fully supported, via built-in GNSS receiver or IEEE1588 PTP
WIRED INTEFRACES	
Ethernet	2 x 10/100/1000-BaseT copper ports, RJ45 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	802.3at of proprietary 'passive' PoE
Cable length	Copper Ethernet cable up to 100m between outdoor unit and the network Fibre length up to 300m dependant on the SFP used
QOS AND NETWORK PROTOCOLS	
QoS	4 Queues
Prioritisation	'Strict' and 'weighted Round Robin' modes
Packet Classification	802.1p
Network Protocols	VLAN, STP
Timing Transport	IEEE 1588 v2, Transparent clock

FACT SHEET

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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 Analyser

PHYSICAL

Weight and dimensions	Please refer to the model matrix below
Operating temperature range	-40°C to +60°C
Dust & Water protection	IP66, IP67
Wind load	160kph operational; 200kph 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 ±56vdc
Consumption	Up to a maximum of 55 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, 2 nd ed
Radio	EN 301 893 v1.8.1, EN 302 502, v1.2.1, FCC part 15.247
EMC	ETSI EN 301 489-1, ETSI 301 489-17, FCC Part 15 Class B
RoHS	Directive 2011 / 65 / EU

MODEL RANGE – Integrated Antenna Models

Part Number	Frequency	Antenna	Weight & Size	
Xm/5X.500.2x500.2x23	4900-6000Mhz	Flat-Panel 23dBi 10x 10 Degrees	305x305x67mm Weight 2.4Kg	
Xm/6X.500.2x500.2x24	6000-6425 Mhz	Flat panel 24 dBi 9 x9 Degrees	371 x 371 x 89mm Weight 3.3Kg	
Xm/5X.500.2x500.2x26	4900-6000 Mhz	Flat-panel 26dBi 8x8 Degrees	600x600x74mm Weight 6.3Kg	
Xm/5X.500.2x500.2x28	4900-6000 Mhz	Flat-Panel 28dBi 5 x 5 Degrees		

External Antenna Models

Part Number	Frequency	Antenna Connection	Weight	
Um/5X.1000.4x150	4900-6000Mhz	2 x N-Type Female	256x240x86 mm 2.1 kg	