



The Intelligent Systems

IntelligentWorks Industrial Wi-Fi Total Solutions



Industrial Wireless Product Selection Guide

Trusted Wi-Fi Solution for Vertical Industries

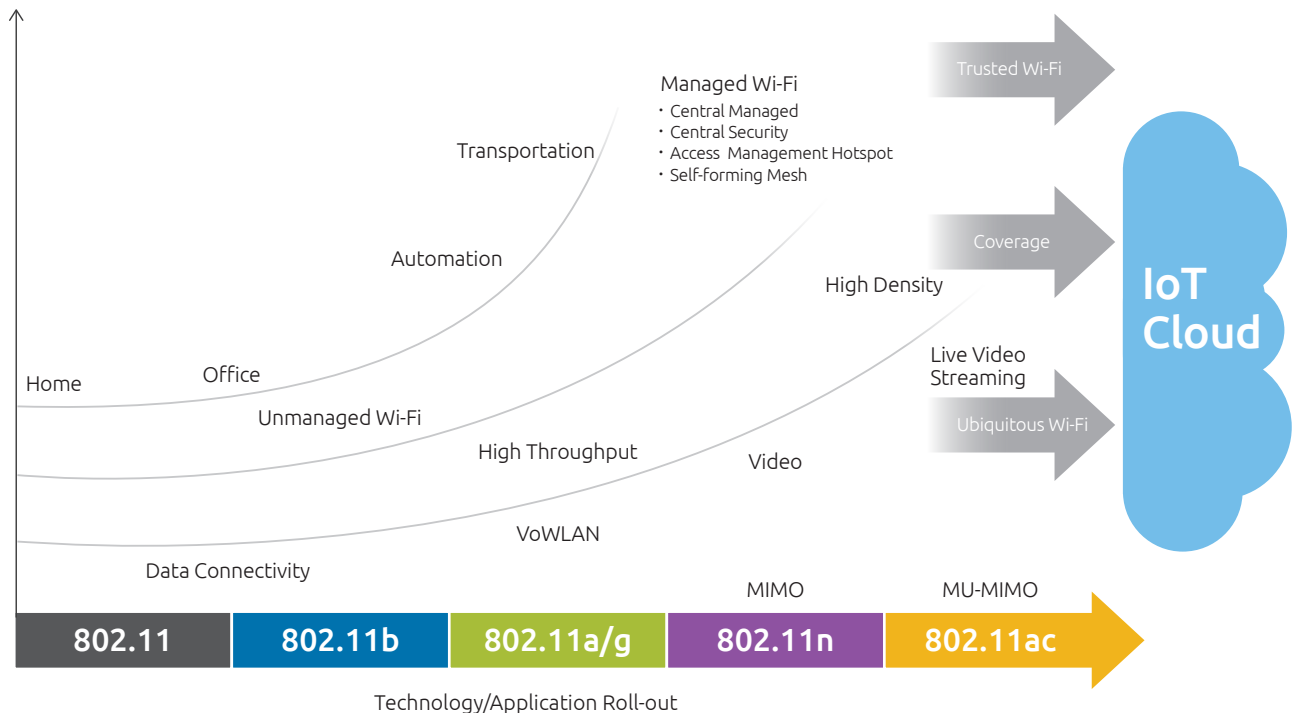
Today, Wi-Fi applications have been implemented in not only in office area, but also in diverse industries around our daily lives. Unlike consumer grade Wi-Fi, to respond the challenges of real industrial requirement and fulfill critical applications, Wi-Fi solution in vertical applications must be reliable in their connectivity and must be capable for features like mesh, roaming, redundancy, and security management.

NEXCOM Industrial Wireless Solution (IWS) is an industrial grade Wi-Fi series with features value-added solution built on top of trusted connectivity including Managed Industrial Wi-Fi (IWF), Security Wi-Fi (SWF), and Hotspot Wi-Fi (HWF) for both enterprise and industrial segments.



Leading Wi-Fi Technology

Wi-Fi technology has been expected to move forward with higher bandwidth and high density, with the introduction of IEEE802.11ac Gigabit based Wi-Fi that boosts numerous innovated applications, especially video related transmission that can be realized, even with live video streaming for surveillance industry.

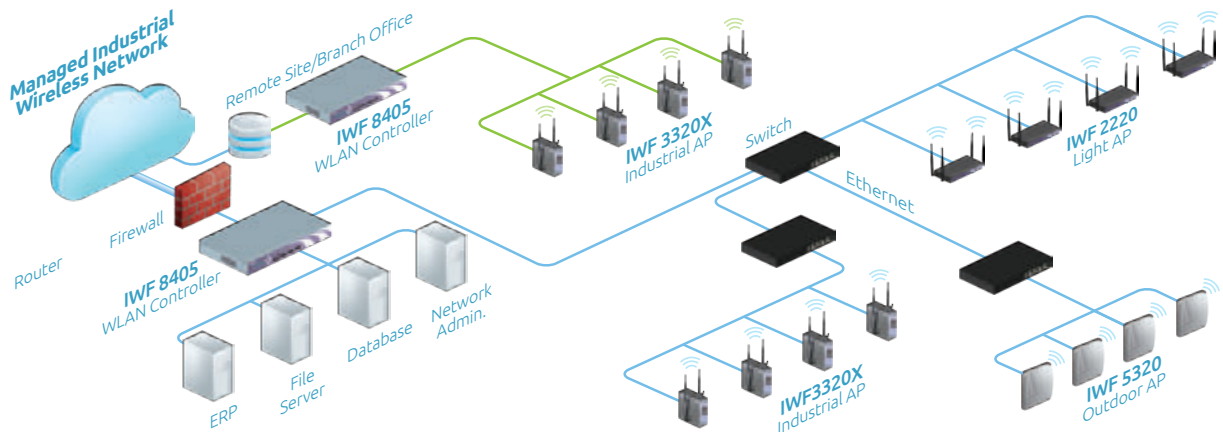


NEXCOM Industrial Wi-Fi Core Competence

High Density: The First IEEE802.11ac High Density AP with 3X3 MIMO Technology



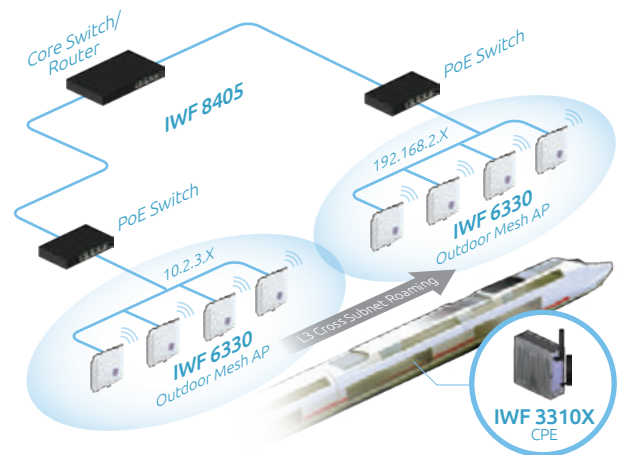
Central Control: Scalable Central Management Controller



Mesh: Press-n-Connect WDS



Wi-Fi Mobility: Metro Subway Roaming



IWF Solution Pack

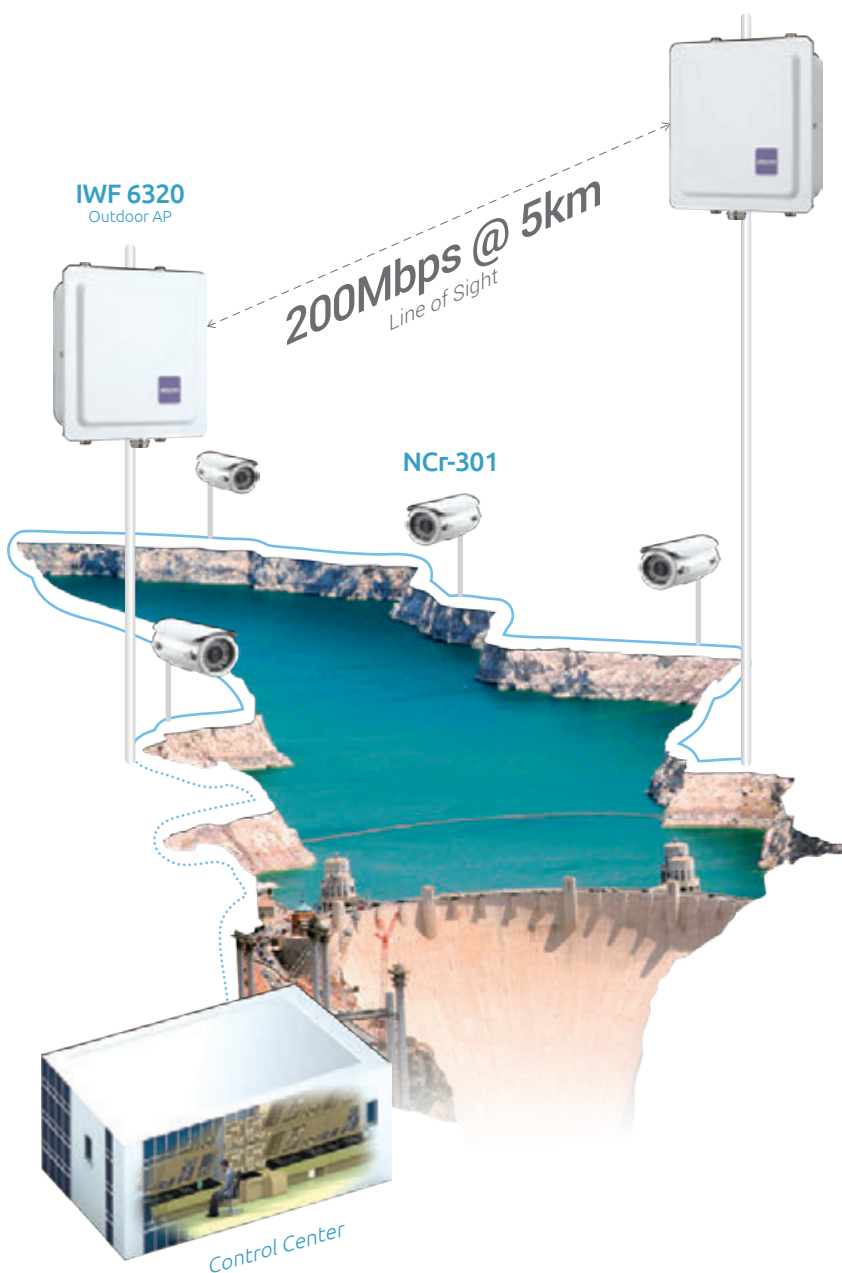
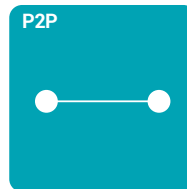
To enhance performance, the attached antenna should be with sufficient gain and good alignment.

Water Dam P2P Wi-Fi Surveillance

Long distance, high bandwidth: 200Mbps @ 5KM.

Solution List

- IWF 6320, IP67 Outdoor AP
- NEXCOM IP Cam

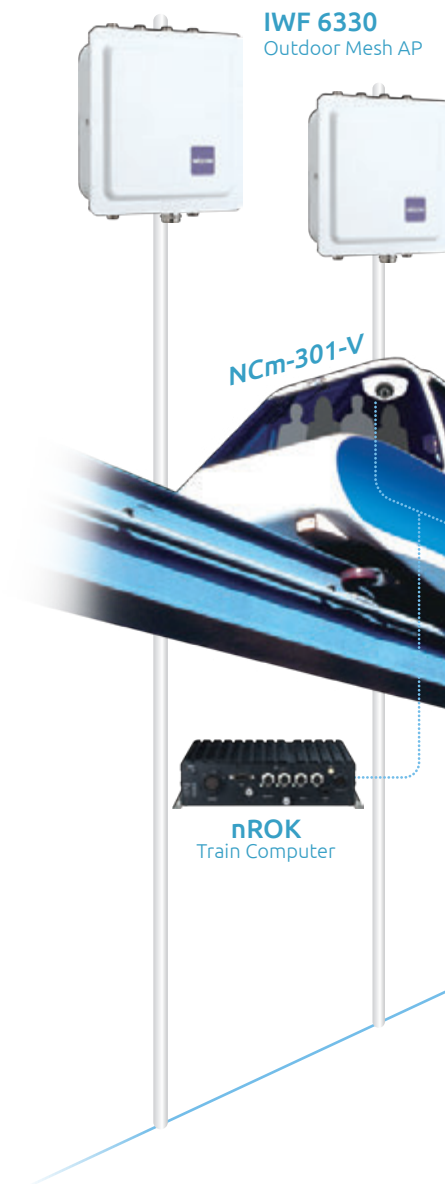


MRT Fast Roaming Wi-Fi

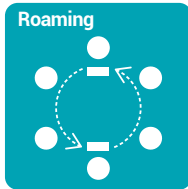
Handover switch time < 20ms; train to ground.

Solution List

- IWF 6330, IP67 Outdoor Mesh AP
- IWF 3310X, IP30 Industrial CPE
- NEXCOM nROK 3000, and, IP-Cam NCm-301-V



Communication

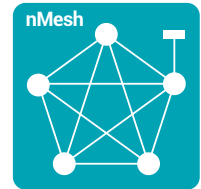


Container Dock Wi-Fi Mesh Networking

Self-forming, high throughput, fast roaming; seamless full-site coverage.

Solution List

- IWF 6330, IP67 Outdoor Mesh AP
- IWF 3310X, IP30 Industrial CPE
- NEXCOM NISE Fanless Computer, VTC In-vehicle Computer, MRC Rugged Tablet PC
- Mesh Networking with Redundancy RF Path



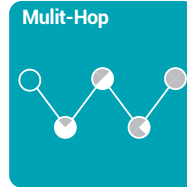
IWF Solution Pack

Highway Multi-Hopping Wi-Fi Surveillance

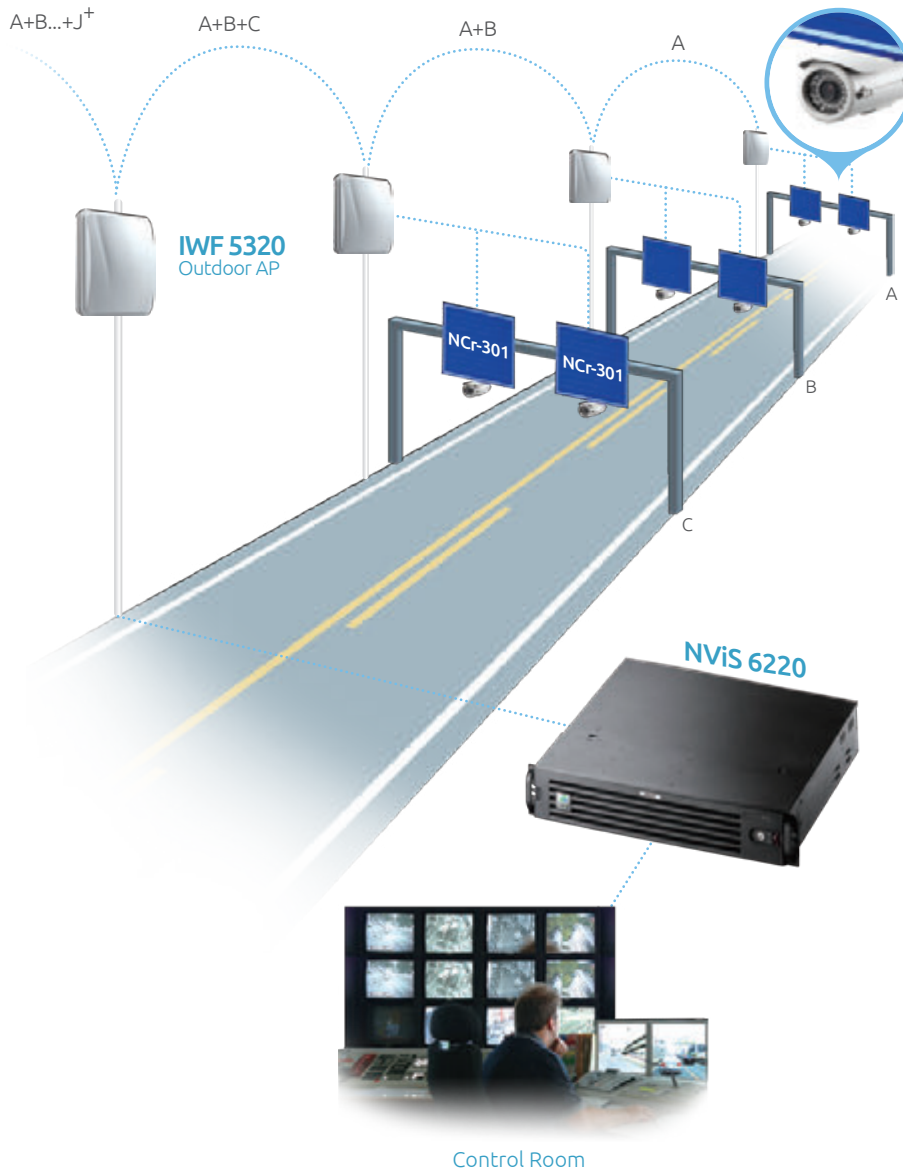
100Mbps@ 10-hop nodes X 2Km; long distance video upload.

Solution List

- IWF 5320, IP68 Outdoor AP
- NEXCOM IP Cam



High Bandwidth 100Mbps@ 10-hop



Bus Station Video Wi-Fi

Video record & fare data auto-upload; 1Mbps

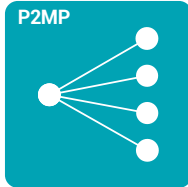
Solution List

- IWF 5320, IP68 Outdoor AP
- IWF 3310X, IP30 CPE
- NEXCOM IP Cam



Fi Upload

@ 50 CPEs per RF.

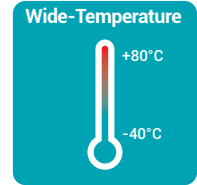


Steel Factory Wide-Temperature Wi-Fi

High temperature, dusty environment, -30~+80 degC conformal coating.

Solution List

- IWF 3320C, Small Scale WLAN Controller (<8AP)
- IWF 3320X, Industrial AP
- IWF 5320, IP68 Outdoor AP
- NEXCOM MRC Rugged Tablet PC, NISE Fanless Computer



Multi-Policy Access Hotspot Wi-Fi (HWF)

Since Internet access is already a part of our daily life, with the new concept of "stay longer, buy more", provide a good quality Wi-Fi access becomes a critical and important to hospitality business operation.

NEXCOM's HWF series is equipped with multi policy-based Wi-Fi access management function which provides guaranteed quality & priority Internet access for specific Wi-Fi users with different levels in Wi-Fi access. This system can handle up to 2000 on-demand accounts and 500 local accounts to ensure sufficient service capability.

NEXCOM HWF series is a ready to install solution which ideally fits all the high quality Wi-Fi access demands in chain-store, hotel, campus, or shopping mall.



Standalone Hotspot in Commercial Store

Easy installation, multiple policy access management @ chain store.

Solution List

- HWF 1310 Access Management Gateway
- HWF-S200 Policy Generator
- HWF-P200 2" Thermal Printer

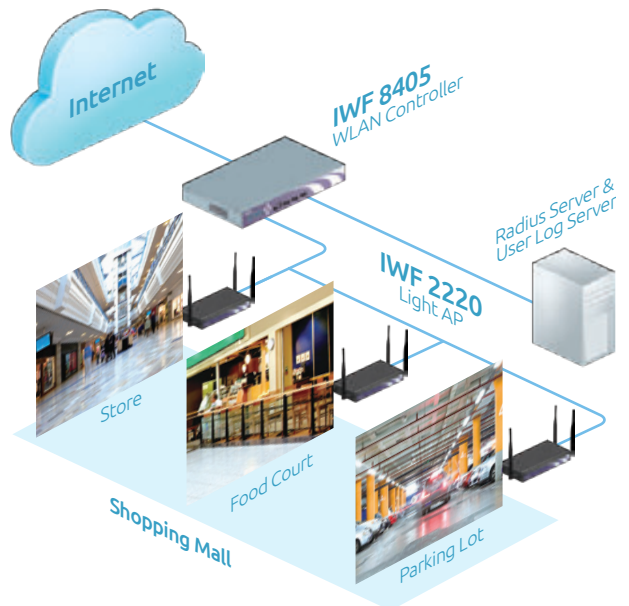


Large Scale Hotspot in Hotel / Shopping Mall

Central management, multiple access @ shopping mall.

Solution List

- Hotspot Pack
- IWF 2220 Light Duty Industrial AP

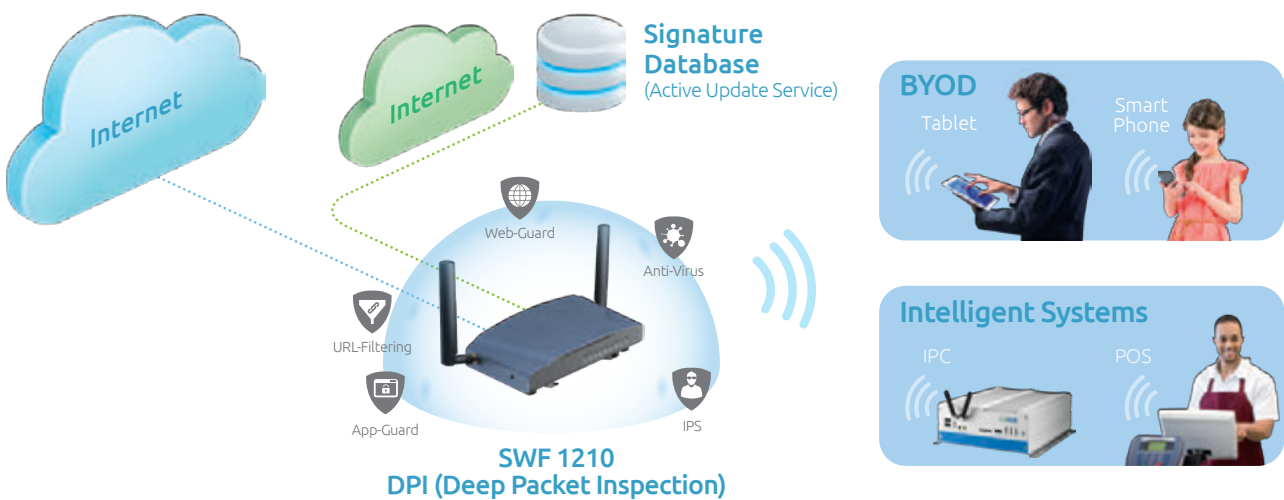


2-in-1 Security Wi-Fi Gateway

Integrated security gateway mechanism into Wi-Fi access point, NEXCOM security Wi-Fi (SWF) gateway is an innovated 2-in-1 solution which provides Internet surfing management & protection from security threats to SME. Today, BYOD has been risky backdoor to damage the company's information system.

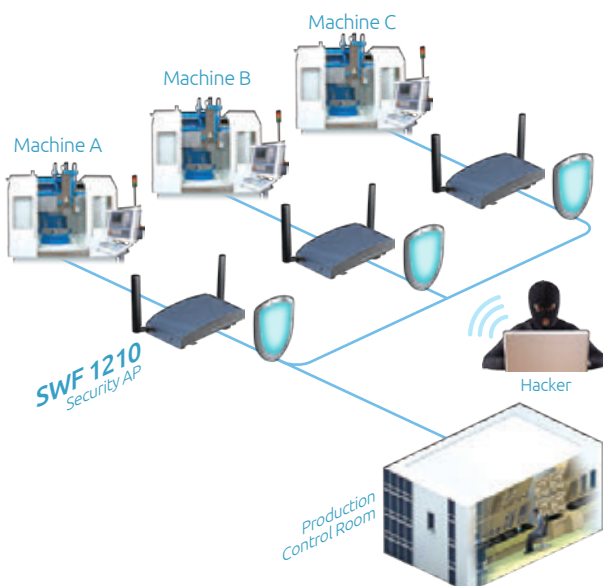
Actively updated by NEXCOM remote Signature Database, the Deep Packet Inspection (DPI) engine supports five security modules which not only protects BYOD and intelligent systems like POS, security camera, but also enables Internet surfing management. This is a powerful weapon to enhance security & increase productivity.

NEXCOM offers an extended re-new service for extension of the active update service from remote signature database so the users can access internet anytime safely & freely.



Security Wi-Fi Gateway for Machine Automation

Individual machine protection through Anti-virus, IPS.









iSurfing Management for SME

SME productive & safe working environment through APP Guard, Web Guard, Web Filter & APP QoS.








Product Selection Guide









Access Point

Family	Central Management Industrial Wi-Fi					
	IWF 2220	IWF 3320X	IWF 3430X	IWF 5210	IWF 5320	IWF 5320P
Model						
Photo						
Category	Light Duty Industrial AP	Industrial AP	Industrial AP	Outdoor AP	Outdoor AP	Outdoor P2P
WLAN Standard	802.11b/g/n + 802.11a/n	802.11a/b/g/n	802.11ac + 802.11a/b/g/n	802.11b/g/n + 802.11a/n	802.11a/b/g/n	802.11a/b/g/n
Number of Radios	2	2	3	2	2	2
Number of Antenna	4	4	9	2	4	4
Type of RF Connector	RP-SMA	RP-SMA	RP-SMA	N-Type Female	N-Type Female	N-Type Female
Number of WAN Port	1	1	2	1	1	1
Number of LAN Port	4	2	4	0	1	1
Type of LAN	RJ45	RJ45	RJ45	RJ45 (Encapsulated by M25)	RJ45 (Encapsulated by M25)	RJ45 (Encapsulated by M25)
Console Port	DB-9	DB-9	DB-9	N/A	RJ45 (Encapsulated by M25)	RJ45 (Encapsulated by M25)
USB2.0	N/A	N/A	x1 (Embedded)	N/A	N/A	N/A
IP Rating	IP30	IP30	IP30	IP68	IP68	IP68
Conformal Coating	N/A	N/A	N/A	Yes	Yes	Yes
Mounting Style	Wall Mount	Wall/DIN-Rail Mount	Wall Mount	Wall/Pole Mount	Wall/Pole Mount	Wall/Pole Mount
Temperature	0°C to +60°C	-40°C to +80°C	-40°C to +80°C	-35°C to +75°C	-20°C to +70°C	-20°C to +70°C
Dimension (mm)	213 x 125 x 37.4	58.8 x 139.6 x 167	250 x 194.2 x 46.4	182 x 111 x 45	240 x 230 x 130	240 x 230 x 130
PoE Input	IEEE 802.3at	IEEE 802.3af	IEEE 802.3at	IEEE 802.3af	IEEE 802.3af	IEEE 802.3af
DC Input	+12V	+9 ~ +36V	+12 ~ +48V	N/A	N/A	N/A
Certification	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC
Safety	EN60950-1	EN60950-1	EN60950-1	EN60950-1	EN60950-1	EN60950-1
Operation Mode	AP/WDS	AP/WDS	AP/WDS	AP/WDS	AP/WDS	Point to Point
Management Mode	Central/GUI Management	Central/GUI Management	Central/GUI Management	Central /GUI Management	Central/GUI Management	GUI Management



IWF Antenna

Part Number	603ANT0008X00	603ANT0011X00	603ANT0014X00	603ANT0009X00	603ANT0012X00
Photo					
Category	Omni-directional	Omni-directional	Dual Band, Omni-directional	MIMO, Directional	MIMO, Directional
Frequency Range	2400 ~ 2500MHz	4900 ~ 5350MHz	2400 ~ 2500/5150 ~ 5875MHz	2300 ~ 2700MHz	5150 ~ 5875MHz
Peak Gain	8 dBi	8 dBi	4dBi@2.4GHz; 7dBi@5GHz	16~17 dBi	20 dBi
VSWR	2.0 : 1 (Max.)	2.0 : 1 (Max.)	2.0 : 1 (Max.)	2.0 : 1 (Max.)	2.0 : 1 (Max.)
Polarization	Linear, Vertical	Linear, Vertical	Linear, Vertical	Linear, Vertical/Horizontal	Dual Linear, ±45°
HPBW/Horizontal	360°	360°	360°	18°~25°	10°
HPBW/Vertical	15°	12°	30°/20°	18°~25°	10°
Power Handling	20W (cw)	20W (cw)	2W (cw)	6W (cw)	6 W (cw)
Front to Back Ratio	N/A	N/A	N/A	-25dB (Max.)	-30dB (Max.)
Isolation (Front/Back)	N/A	N/A	N/A	16dB (Min.)	24dB (Min.)
Impedance	50Ω	50Ω	50Ω	50Ω	50Ω
Connector*	N type, Female	N type, Female	N type, Male	N type, Female	N type, Female
Survival Wind Speed	216km/hr	216km/hr	216km/hr	216km/hr	216km/hr
Temperature	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C	-40°C to +80°C
Humidity	95% at 55°C	95% at 55°C	95% at 55°C	95% at 55°C	95% at 55°C
Radome Color	Gray-white	Gray-white	Gray	Gray-white	Gray-white
Radome Material	Fiber Glass, UV Resistant	Fiber Glass, UV Resistant	ABS, UV Resistant	PC, UV Resistant	PC, UV Resistant
Weight	340g	280g	70g	1.1kg	1.245kg
Dimensions (mm)	80 x 78 x 520	80 x 78 x 3730	Ø22 x 183	320 x 320 x 18	320 x 320 x 20
Mount Kit	Included with Antenna	Included with Antenna	Directly Mount, N jack	Pole & Wall Mount	Pole & Wall Mount

* The antenna with N-type female connector needs additional low loss cable in order to connect to AP while N-type (male) style connector is directly connect to AP.

Mesh/Mobility Wi-Fi			Cost-effective AP/CPE		Hotspot Wi-Fi	Security Wi-Fi	
IWF 3310X	IWF 6320	IWF 6330	IWF 501/501D	IWF 502/502D	HWF 1310	SWF 1210	SWF 1220
							
Industrial Mesh AP/CPE	Outdoor Mesh AP	Outdoor Mesh AP	Outdoor AP/CPE	Outdoor AP/CPE	Hotspot AP	Security AP	Security AP
802.11a/b/g/n	802.11a/b/g/n	802.11a/b/g/n	802.11b/g/n	802.11a/n	802.11b/g/n	802.11b/g/n	802.11b/g/n+802.11a/n
1	2	3	1	1	1	1	2
2	4	6	IWF 501: 12dBi Embedded Antenna IWF 501D: 2 x RP-SMA Female	IWF 502: 14dBi Embedded Antenna IWF 502D: 2 x SMA Female	2	2	2
RP-SMA	N-Type Female	N-Type Female	2 x RP-SMA Female	2 x RP-SMA Female	RP-SMA	RP-SMA	RP-SMA
1	1	1	1	1	1	1	1
0	0	0	1	1	4	4	4
RJ45	RJ45 (Encapsulated by M25)	RJ45 (Encapsulated by M25)	RJ45	RJ45	RJ45	RJ45	RJ45
N/A	N/A	N/A	N/A	N/A	DB-9	N/A	N/A
N/A	N/A	N/A	N/A	N/A	x1	x1	x1
IP30	IP67	IP67	IP55	IP55	IP30	IP30	IP30
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wall/DIN-Rail mount	Wall/Pole Mount	Wall/Pole Mount	Pole Mount	Pole Mount	Wall Mount	Wall Mount	Wall Mount
-40°C to +80°C	-35°C to +75°C	-35°C to +75°C	-35°C to +75°C	-35°C to +75°C	0°C to +60°C	0°C to +60°C	0°C to +60°C
58.8 x 139.6 x 167	220 x 220 x 77	220 x 220 x 77	280 x 93 x 45	280 x 93 x 45	165 x 82 x 25	213 x 125 x 37.4	213 x 125 x 37.4
IEEE 802.3at	PoE: 48V	PoE: 48V	PoE: 12~24V	PoE: 12~24V	N/A	N/A	N/A
2 x DC input: +12~+48V	N/A	N/A	N/A	N/A	+5V	+12V	+12V
CE, FCC, EN50155	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE	CE, FCC	CE, FCC
EN60950-1	EN60950-1	EN60950-1	EN60950-1	EN60950-1	EN60950-1	EN60950-1	EN60950-1
AP/Station/Mesh (* Mesh model only)	AP/Station/Mesh	AP/Station/Mesh	AP/Client/Router/WISP	AP/Client/Router/WISP	AP/WDS	AP/WDS	AP/WDS
SNMP/GUI Management	SNMP/GUI Management	SNMP/GUI Management	GUI Management	GUI Management	GUI Management	GUI Management	GUI Management

Controller

603ANT0010X00	603ANT0013X00
	
Directional Sector Antenna	Directional Sector Antenna
2400 ~ 2500MHz	5150 ~ 5875MHz
14±0.5 dBi	15±0.5 dBi
2.0 : 1 (Max.)	2.0 : 1 (Max.)
Linear, ±45°	Linear, ±45°
60°	60°
13°	6°
10W (cw)	6W (cw)
-25dB (Max.)	-20dB (Max.)
20dB (Min.)	20dB (Min.)
50Ω	50Ω
N type, Female	N type, Female
216km/hr	216km/hr
-40°C to +80°C	-40°C to +80°C
95% at 55°C	95% at 55°C
Gray	Gray
ABS, UV Resistant	ABS, UV Resistant
970g	1060g
540 x 116 x 39	540 x 116 x 39
Pole & Wall Mount	Pole & Wall Mount

Model	IWF 8405	IWF 3320C
Photo		
Number of AP	150	8
Local user	6000	2000
On-demand User	6000	2000
Number of Antenna	N/A	4
Type of RF Connector	N/A	RP-SMA
Number of WAN Port	2	1
Number of LAN Port	4	2
Console Port	RJ-45	DB-9
USB2.0	2	N/A
Mounting Style	19" 1U Rack	DIN-Rail & Wall Mount
Temperature	0°C to +40°C	-40°C to +80°C
Dimension (mm)	426 x 236 x 44	58.8 x 139.6 x 167
PoE Input	N/A	IEEE 802.3af
Power Input	100 ~ 240 VAC, 50/60 Hz	+9 ~ +36V DC (Thru Terminal block)
Certification	CE, FCC	CE, FCC
Safety	EN60950-1	EN60950-1

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The Intelligent Systems

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