



Surveillance over WiTDM
100Mbps@40Km over WiFD2
Wi-Fi Repeating over WiEXTEND

Our services

- WiFD²®, Wireless Outdoor FDD Telecom Backhaul Solution
- Mobile WiTDMTM, Mobile Surveillance System
- WiTDM[®], Wireless Outdoor TDMA NLOS Solution
- WiScan[®], IP54 802.11a/b/g/n Wireless Tester
- WiBONE[®], Wireless MIMO Outdoor Bridge Solution
- WiMESH[®], Wireless Outdoor MESH Solution
- WiLINX[®], Customization Frequency Wi-Fi Outdoor Bridge Solution
- WiMobileTM, Industrial Wireless System Integration
- WiVIEW[®], Wireless Network NMS Systems
- WiEXTENDTM, 802.11b/g/n Wi-Fi Repeater
- WiSOCKETTM, 802.11b/g/n Wall / Ceiling AP Solution
- 802.11 series Indoor Solution
- Wireless Embedded System
- Software Development of Wireless Application
- Consultant of Wireless Network Implement
- Accessories (Antenna, RF Cable Assembly, PoE Solution, Subscriber Gateway, Lighting Arrestor)

Supporting Frequency :

700MHz, 900MHz, 2.3-2.5GHz, 3.6GHz, 4.9-6.0GHz

& Customization Frequency

TOUCH AND CONNECT!TM

Company

Founded in 2002, DARK Group, Formosa Wireless Systems offers a complete line of wireless broadband networking & communications applications to meet the thriving needs of his dynamic market.

Our well-experienced R&D professionals are capable of developing state-of-the-art products, like WiFD², Mobile WiTDM, WiTDM, WiFi Repeater, Wall AP Mesh, Outdoor AP, Hotspot and Wireless Analyzer.

Our mission is to offer the users a total mobile solution with triple play service that includes high-speed Internet access, voice and video--all over WLAN.



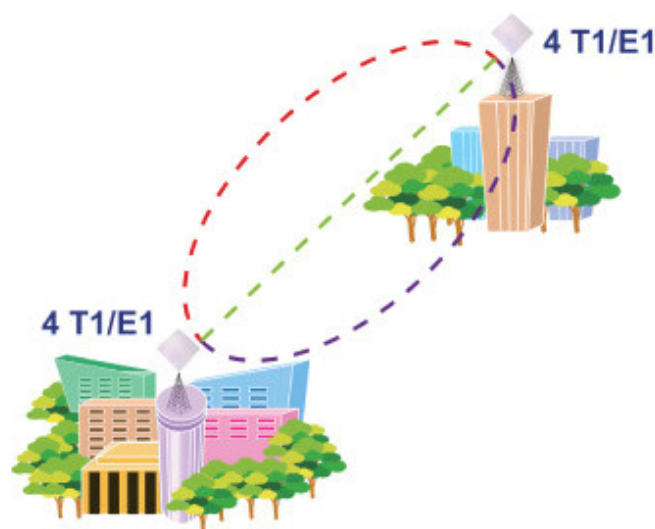


KW1850 Series, Wireless FDD Telecom Backhaul Solution, 80 - 100Mbps@40Km

Formosa KW1850 series of all outdoor bridge are designed for point to point application.

These bridges with functions of PoE(Power over Ethernet) power supply, waterproof, dustproof and coolant can build up a low packet latency and high bandwidth connection between two buildings. Such marvelous products are so suitable to be set up outdoors. Radio in the KW1850 series support capabilities ranging from 1.6 Mbps to an industry-leading 120 Mbps of aggregate user throughput, and 100BaseT interfaces. Featuring native FDD and native Ethernet transport and full software configurability and upgradeability, the KW1850 series was designed to meet demanding backhaul requirements of enterprise organizations and service providers seeking the performance benefits of an all-outdoor configuration.

Security, Management and Data Networking. The KW1850 series deliver the highest data and management security available with 256-bit AES encryption and secure SNMP v2 management, together with enhanced fault management and diagnostic features.



Tuning Resolution	1 MHz	
Output Power	+25 dBm BPSK1/2, +20dBm 64QAM3/4	
Power Control Step Size	1 dB	
Receiver Threshold (BER=10-6)	20 MHz	40 MHz
64QAM 3/4	-70	-68
64QAM 1/2	-75	-73
16QAM 3/4	-78	-76
16QAM 1/2	-82	-80
QPSK 3/4	-84	-82
QPSK 1/2	-86	-84
BPSK 3/4	-88	-86
BPSK 1/2	-90	-88
Throughput (Mbps)	70	125
Non-overlapping Channels	4	2
Configuration and Management		
WEB GUI	Navigating the GUI	
SNMP	SNMP v1/v2 support options	
QoS	802.1P (Ethernet)	
Diagnostic and Testing		
Ethernet Loopback		
No Loopback Default		
External Local Loopback	External loopback modes are used in conjunction with an external test source	
External Remote Loopback	External loopback modes are used in conjunction with an external test source	
Internal Loopback	Internal loopback uses an internal test source, and sends the test source signal across the link, looped at the remote radio's interface, returned to the local radio, and looped at the local radio's interface back to the source. The inputs at both ends are looped back at the line level.	
PING Remote Birdge		
Windows Utility	WiVIEW 2	
Protocol Stack	SNMP, HTTP, UDP, TCP, IP v4, DNS,	

Model	Frequency MHz	Antenna dBi	Output Power dBm	Sensitivity dBm	Dimension mm	Weight Kg
KWA-O1850	5,120-5,900	N / N Jack	23 (200mW)	-90	259 x 250 x 75	1.8
KWA-O1850-I	5,120-5,900	23 / N Jack	23 (200mW)	-90	335 x 335 x 81	3.6



Mobile Surveillance Solution KW8000 Series Mobile WiTDM[®] for Emergency Rescue 700MHz / 900MHz / 2.4GHz / 5-6 GHz

Design to protect and guide your elite units and have them traced throughout their entire operations.

Support recording directly with both video and audio and to monitor an individual or group such as banks, casinos, airports, military installations, and convenience stores when there are emergencies such as fire, natural disaster or when a temporary surveillance or security environments are needed and have all the precious information sent back to their control center in real time.



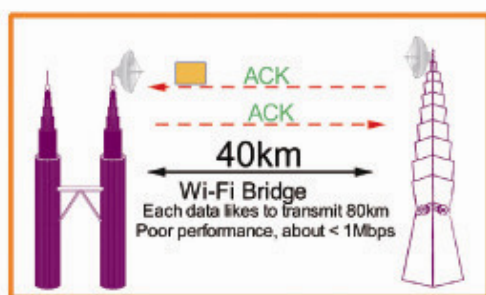
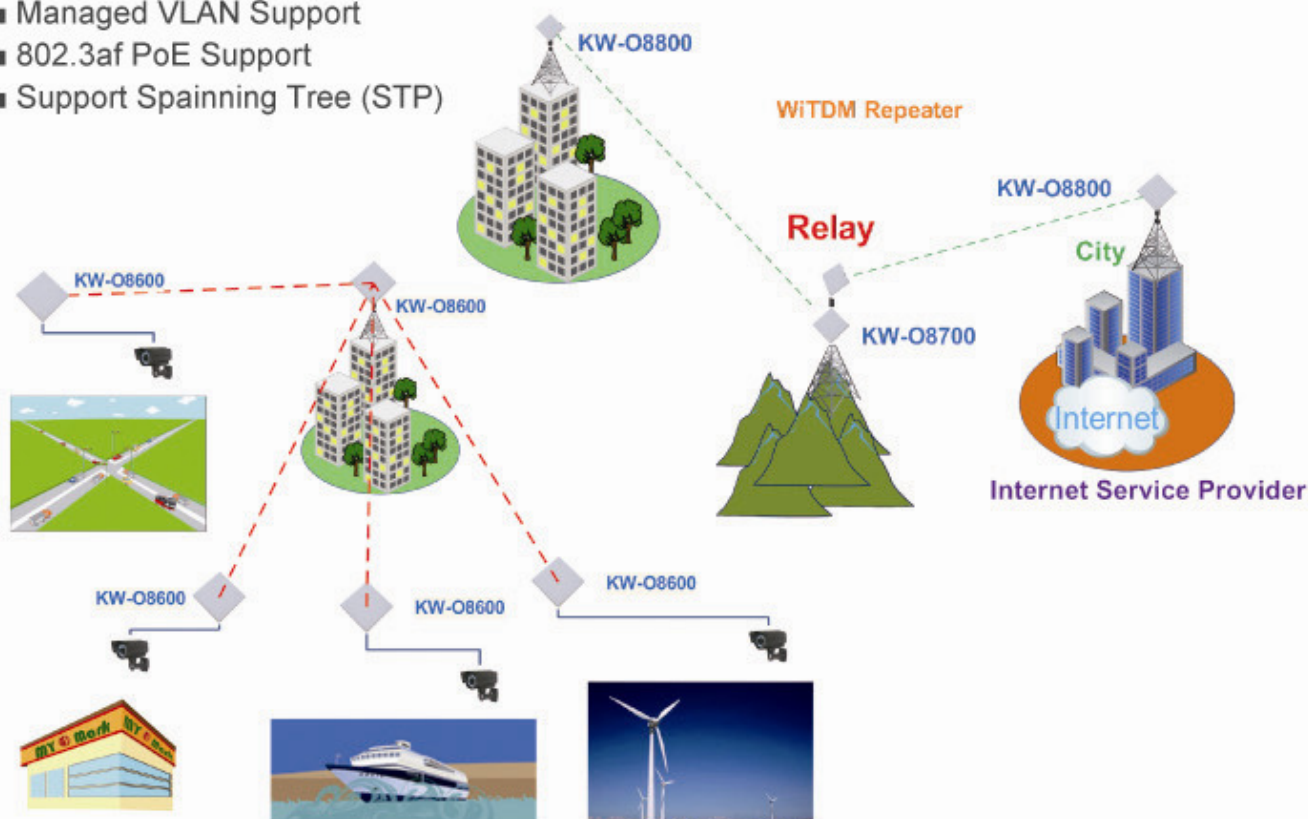
HARDWARE		SECURITY		
LAN	1 x 10/100BaseT RJ-45 with Auto-MDIX (8000C Only)	Encryption	AES 256bit	
Power In	DC 12V	PHYSICAL		
Power Out	DC 12V to Camera	Operating Temperature	-10 ~ 50C	
Default Button	Yes	Operating Humidity	10 ~ 95% RH	
Enclosure	Plastic Case (ABS)	VIDEO (8000CV)		
LED	Power / Status / RSSI (Link Status)	Video Compression	H.264 / Motion JPEG	
I/O for Camera	Audio / Video	Video Resolution	NTSC	PAL
	(8000CV only)		D1: 720 x 480	D1: 720 x 576
Power Consumption	9W (8000CV) 6W (8000C)		CIF: 352 x 240	CIF: 352 x 288
			QCIF: 176 x 120	QCIF:176 x 144
FEATURE		Bit Rate	64K ~ 4M bits/sec (CBR/VBR configurable)	
Operating Mode	Client Mode	Frame Rate	30 FPS @ D1 / CIF/ QCIF	
Link Test Tool	Yes (Real Time Local and Remote RSSI)	Video Control	6 Stream Profiles	
Radio Bandwidth	5/ 10 / 20 Mbps		H.264 & Motion JPEG	
QoS	TDD / 802.1P		VBR/CBR for quality / bit rate control	
Auto Channel	Yes		Embedded OSD for Time & Text Stream	
DFS/TPC	Yes		RTSP URI	
NTP Client	Yes	Digital PTZ (Option)	By Image Area	
CLI	Yes (SSH)	PTZ Support (Option)	Pelco D/P	
Backup / Restore	Yes	Image Adjustment		
System Log	Yes	Event System	Trigger	Schedule, Motion detection, By boot
Remote Log Server	Yes			
MANAGEMENT			Action	Notification via email, TCP
Web Base Management	Yes			
SNMP V.2	Private MIB			
Windows Tool	Yes (WVIEW)			

Model		Frequency MHz	Antenna dBi	Output Power dBm	Sensitivity dBm	Dimension mm	Weight Kg
For Analog Camera	KWM-8000CV	700-750	N Jack 2 dBi	24	-89	160 x 190 x 40	1.0
	KWN-8000CV	903-928	N Jack 2 dBi	23	-92	160 x 190 x 40	1.0
	KWG-8000CV	2,412-2,472	N Jack 5 dBi	23	-92	160 x 190 x 40	1.0
	KWG-8000HCV	2,412-2,472	N Jack 5 dBi	29	-97	160 x 190 x 40	1.0
	KWA-8001CV	4,920-5,120	N Jack 5 dBi	25	-90	160 x 190 x 40	1.0
	KWA-8002CV	5,120-5,420	N Jack 5 dBi	25	-90	160 x 190 x 40	1.0
	KWA-8003CV	5,420-5,720	N Jack 5 dBi	25	-90	160 x 190 x 40	1.0
	KWA-8004CV	5,720-6,060	N Jack 5 dBi	25	-90	160 x 190 x 40	1.0
For IP Camera	KWM-8000C	700-750	N Jack 2 dBi	24	-89	160 x 190 x 40	0.8
	KWN-8000C	903-928	N Jack 2 dBi	23	-92	160 x 190 x 40	0.8
	KWG-8000C	2,412-2,472	N Jack 5 dBi	23	-92	160 x 190 x 40	0.8
	KWG-8000HC	2,412-2,472	N Jack 5 dBi	29	-97	160 x 190 x 40	0.8
	KWA-8001C	4,920-5,120	N Jack 5 dBi	25	-90	160 x 190 x 40	0.8
	KWA-8002C	5,120-5,420	N Jack 5 dBi	25	-90	160 x 190 x 40	0.8
	KWA-8003C	5,420-5,720	N Jack 5 dBi	25	-90	160 x 190 x 40	0.8
	KWA-8004C	5,720-6,060	N Jack 5 dBi	25	-90	160 x 190 x 40	0.8

KW8000 Series, Wireless TDM Solution 40~60Mbps@50Km

[Key Features & Benefits]

- Reliable Outdoor Enclosure
- IP67 Qualified Waterproof
- Vent design , for Balance of Air Pressure
- Good Balance on low Cost and High Performance
- Actual reachable testing range > 50 km
- High Throughput over Long Distance
- Support point to point , point to multi point and Relay functions
- High security (AES 256 bit)
- Ease of Installation (Real time Link Test for Local and Remote RSSI)
- Transmit Power Control
- Bandwidth Control (40 / 20 / 10 / 5 MHz)
- Wireless TDMA (TDD Mode)
- Managed VLAN Support
- 802.3af PoE Support
- Support Spanning Tree (STP)



	Model	Frequency MHz	Antenna dBi	Output Power dBm	Sensitivity dBm	Dimension mm	Weight Kg
P2P	KWM-O8800	703-718	N Jack	28	-92	259 x 250 x 75	1.8
	KWM-O8801	763-778	N Jack	28	-92	259 x 250 x 75	1.8
	KWM-O8801-I	763-778	9	28	-92	335 x 335 x 81	2.9
	KWN-O8800	903-928	N Jack	23	-92	259 x 250 x 75	1.8
	KWN-O8800-I	903-928	12	23	-92	335 x 335 x 81	2.9
	KWF-O8800	2,312-2,392	N Jack	23	-92	259 x 250 x 75	1.8
	KWF-O8800-I	2,312-2,392	19	23	-92	335 x 335 x 81	2.9
	KWF-O8801	2,312-2,472	N Jack	23	-92	259 x 250 x 75	1.8
	KWF-O8801-I	2,312-2,472	19	23	-92	335 x 335 x 81	2.9
	KWG-O8800	2,412-2,472	N Jack	23	-92	259 x 250 x 75	1.8
	KWG-O8800-I	2,412-2,472	19	23	-92	335 x 335 x 81	2.9
	KWH-O8800	2,700-2,900	N Jack	23	-92	259 x 250 x 75	1.8
	KWQ-O8801	3,650-3,710	N Jack	22	-90	259 x 250 x 75	1.8
	KWQ-O8001-I	3,650-3,710	18	22	-90	330 X 300 X 81	2.9
	KWA-O8800	5,120-6,060	N Jack	25	-90	259 x 250 x 75	1.8
	KWA-O8800-I	5,120-6,060	23	25	-90	335 x 335 x 81	2.9
	KWA-O8801	4920~5100	N Jack	18	-92	259 x 250 x 75	1.8
	KWA-O8801-I	4920~5100	22	18	-92	259 x 250 x 75	2.9
Repeater	KWA-O8700-I	5,120-6,060	23 + N Jack	25	-90	335 x 250 x 81	3.7
	KWG-O8700-I	2,412-2,472	19 + N Jack	23	-92	335 x 250 x 81	3.7
P2MP	KWM-O8600	703-718	N Jack	28	-92	259 x 250 x 75	1.8
	KWM-O8601	763-778	N Jack	28	-92	259 x 250 x 75	1.8
	KWM-O8601-I	763-778	9	28	-92	335 x 335 x 81	2.9
	KWN-O8600	903-928	N Jack	23	-92	259 x 250 x 75	1.8
	KWN-O8600-I	903-928	12	23	-92	335 x 335 x 81	2.9
	KWF-O8600	2,312-2,392	N Jack	23	-92	259 x 250 x 75	1.8
	KWF-O8600-I	2,312-2,392	19	23	-92	335 x 335 x 81	2.9
	KWF-O8601	2,312-2,472	N Jack	23	-92	259 x 250 x 75	1.8
	KWF-O8601-I	2,312-2,472	19	23	-92	335 x 335 x 81	2.9
	KWG-O8600	2,412-2,472	N Jack	23	-92	259 x 250 x 75	1.8
	KWG-O8600-I	2,412-2,472	19	23	-92	335 x 335 x 81	2.9
	KWH-O8600	2,700-2,900	N Jack	23	-92	259 x 250 x 75	1.8
	KWQ-O8601	3,650-3,710	N Jack	22	-90	259 x 250 x 75	1.8
	KWQ-O8601-I	3,650-3,710	18	22	-90	330 X 300 X 81	2.9
	KWA-O8600	5,120-6,060	N Jack	25	-90	259 x 250 x 75	1.8
	KWA-O8600-I	5,120-6,060	23	25	-90	335 x 335 x 81	2.9
	KWA-O8601	4920~5100	N Jack	18	-92	259 x 250 x 75	1.8
	KWA-O8601-I	4920~5100	22	18	-92	259 x 250 x 75	2.9

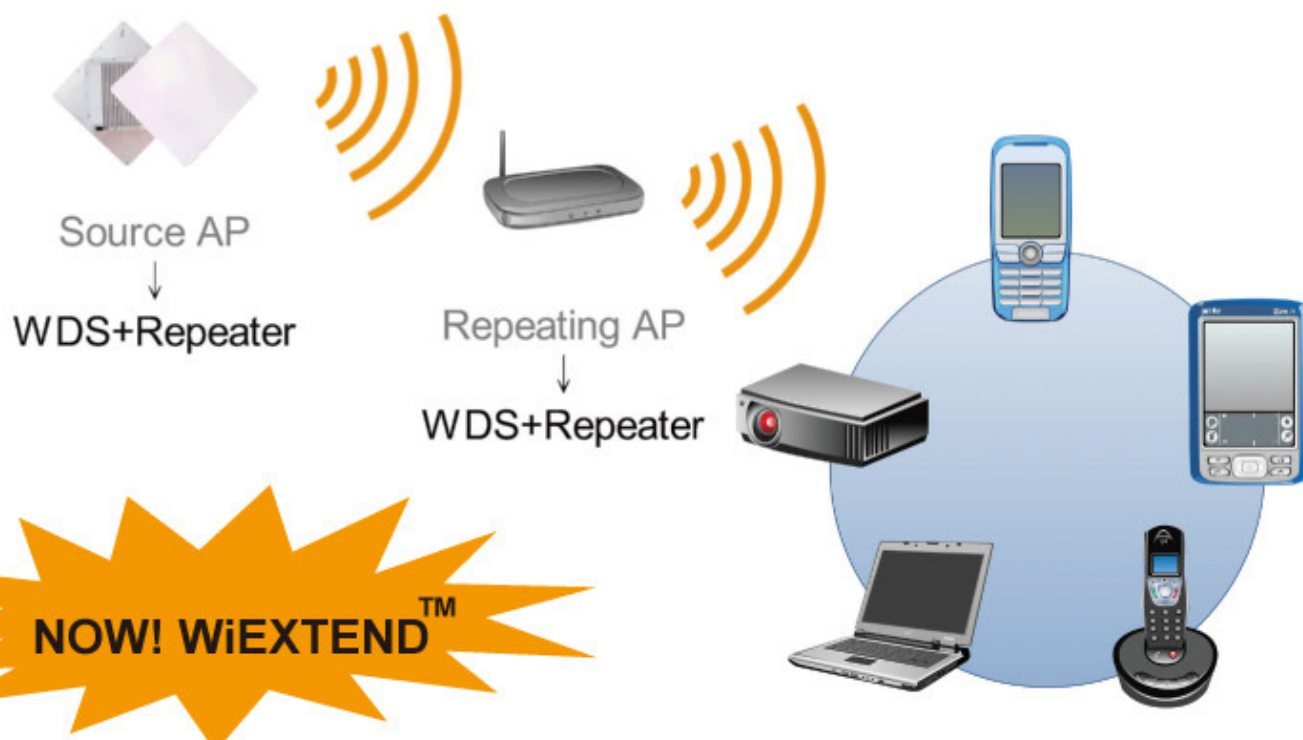


WiEXTEND™

KWG-670R / KWG-O670R, Wireless Wi-Fi Repeater

Conventions

The source AP **MUST** be changed to WDS repeating mode as same as the repeating AP.



NOW! WiEXTEND™

Not necessary to change any setting of the source AP. Just put the repeater to expand wireless coverage





KWG-670R



KWG-O670R

	KWG-670R	KWG-O670R
Standard	IEEE 802.11 b/g/n	IEEE 802.11 b/g/n
Waterproof	Indoor	Outdoor / IP 66
Antenna	1x1 5 dBi (RP-SMA Jack)	1x1 5 dBi (N Jack)
Ethernet	1 10/100Base-Tx Auto-MDIX	
Frequency Range	2.4 ~ 2.4835GHz	
Operation Channel	FCC / USA / 11 Channels	
	TELEC / Japan / 14 Channels	
	ETSI / Europe / 13 Channels	
Modulation	OFDM	
	CCK / DQPSK / DBPSK	
Security	64 / 128 bit WEP, WPA, WPA2, 802.1x, 802.11i	
Data Rate	11g, 54Mbps 11b, 11Mbps 11n, 150Mbps	11g, 54Mbps 11b, 11Mbps 11n, 150Mbps
Output Power	11g, 23 dBm Max. 11b, 26 dBm Max 11n, 23 dBm Max	11g, 23 dBm Max. 11b, 26 dBm Max 11n, 23 dBm Max
Sensitivity	-74 dBm@54Mbps -89 dBm@11Mbps -70 dBm@11n (HT20) -66 dBm@11n (HT40)	-74 dBm@54Mbps -89 dBm@11Mbps -70 dBm@11n (HT20) -66 dBm@11n (HT40)
Power Adapter	DC 12V / 1A	802.3af PoE
Operation Temperature	0 ~ 55 C	-10 ~ 60 C
Storage Temperature	-20 ~ 70 C	-20 ~ 70 C
Humidity	5% ~ 90%	
Weight	200g	700g
Dimension	170 x 113 x 26 mm	197.5 x 197.5 x 63 mm



WiScan®

KWT-178AG, Wireless 802.11a/b/g/n Tester

Wireless Tester

Wireless Tester, KWT-178AG, is a PDA tester in scanning, analyzing and optimizing 2.4 / 5 GHz Wireless Local Area Networks.

The KWT-178AG measures 4.9-5.9 GHz / 2.4-2.5GHz which operate on the IEEE 802.11a/b/g/n standard allowing the user to determine the AP's MAC address 、SSID 、Data Encryption and RSSI signal levels for locating and optimizing access points of WLANs.

KWT-178AG 802.11a/b/g/n system uses custom receiver software and the exclusive industry PDA hardware platform to provide the user reliable and precise test data. KWT-178AG is the best auxiliary tool when building a wireless network.



[Function]

2.4 / 5GHz Wireless Network

Channel Survey

BSS Survey

Roaming Test

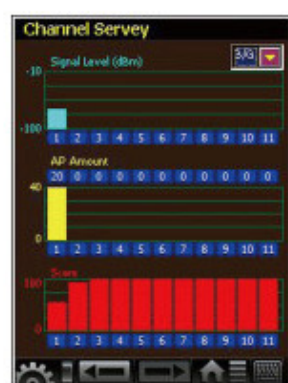
Connection Test (Pack Send and Receive, Signal Strength)

Rogue AP / Rogue Client Detecting

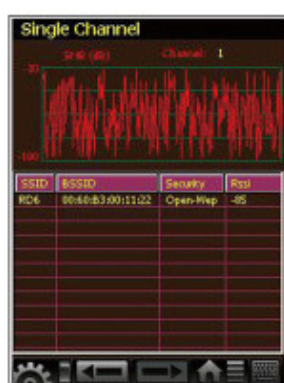
AP Power Check

AP Detector

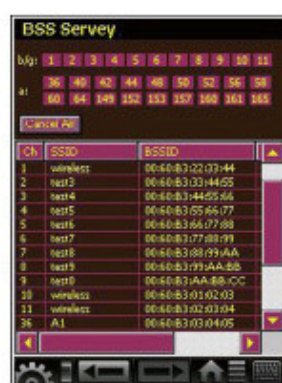
Test Report



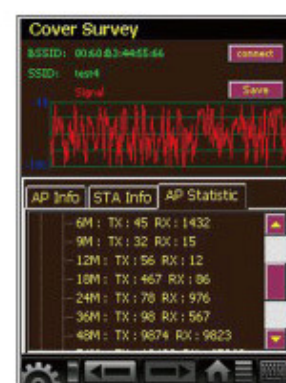
Environment Survey



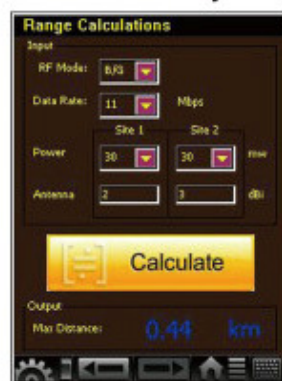
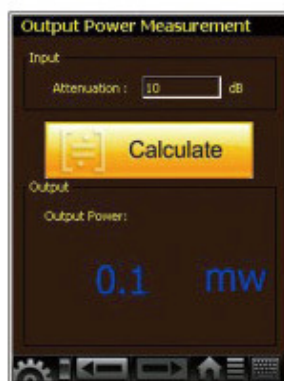
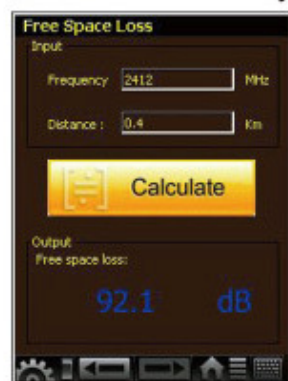
Selected Channel Monitor



AP Survey



Selected AP Monitor



Free Space Loss Calculation Radio Output Power Test Max. Distance Calculation

dBm/ mW Convert

[Hardware Spec]

Intel PXA270 520MHz 32 bits RISC Processor

128 MB SDRAM and 128 MB Flash ROM

One USB port built in

240 x 320, 3.5" Color TFT Display

1 Numeric Keyboard with LED backlight

Wolfson WM9705 AC'97 codec with Touch screen controller

3000mAh, 7.4V Li-Ion battery pack

One rechargeable backup battery

Dimension 192.5mm (L) x 91.3mm / 78mm (W)

x 42.2mm / 60.6mm (H)

Weight : 560g with Standard Battery Pack

OS. WinCE. NET5.0 Professional

Environmental

Operation: -10~50°C

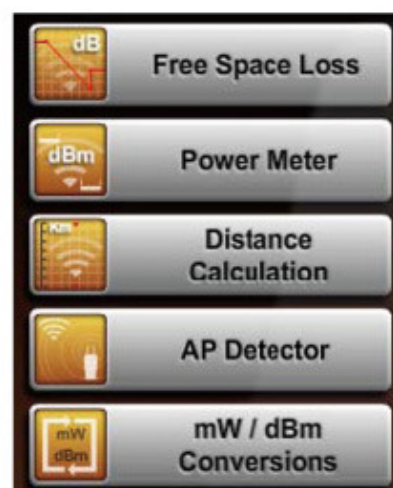
Storage: -20~79°C

Humidity: Operation-10%~80%

IP54 Certified, IP64 compliant

1.2m (4ft) drop to concrete certified

1.5m (5ft) drop to concrete, System no broken.





WiSOCKET®

802.11n Wireless Wall AP Solution

Highlight of Features

Complies with IEEE 802.11b/g/n standards

A compact AP fits for any size of Ethernet wall jack

Simple and easy installation

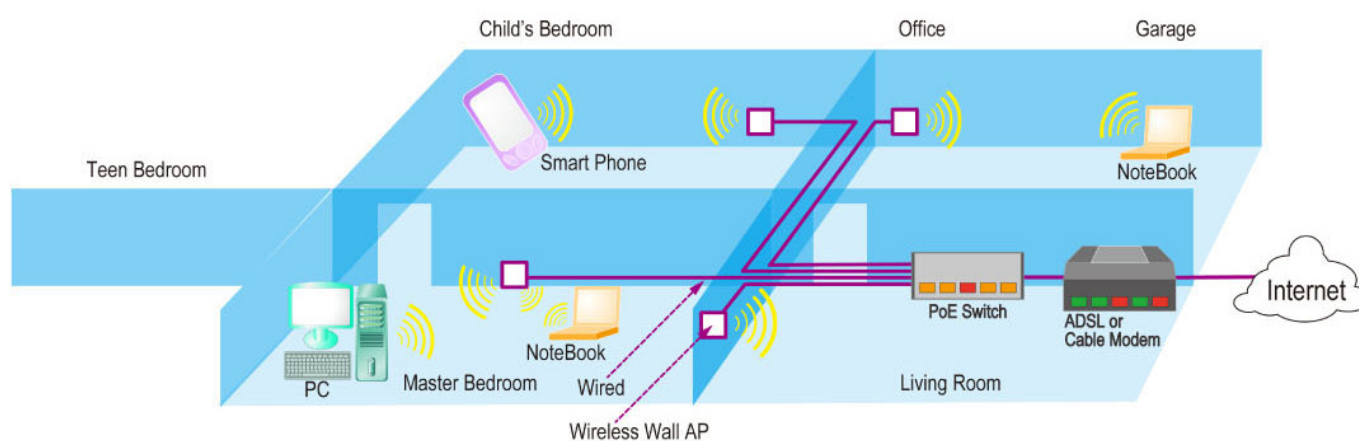
Advanced security features, including WEP, WPA, AES, IEEE802.1x, MAC filtering

Supports standard Power Over Ethernet, complies with IEEE802.3af

Use existing Ethernet cabling system, no re-wiring

Invisible, provides no wireless dead spots

Manageable and Controllable



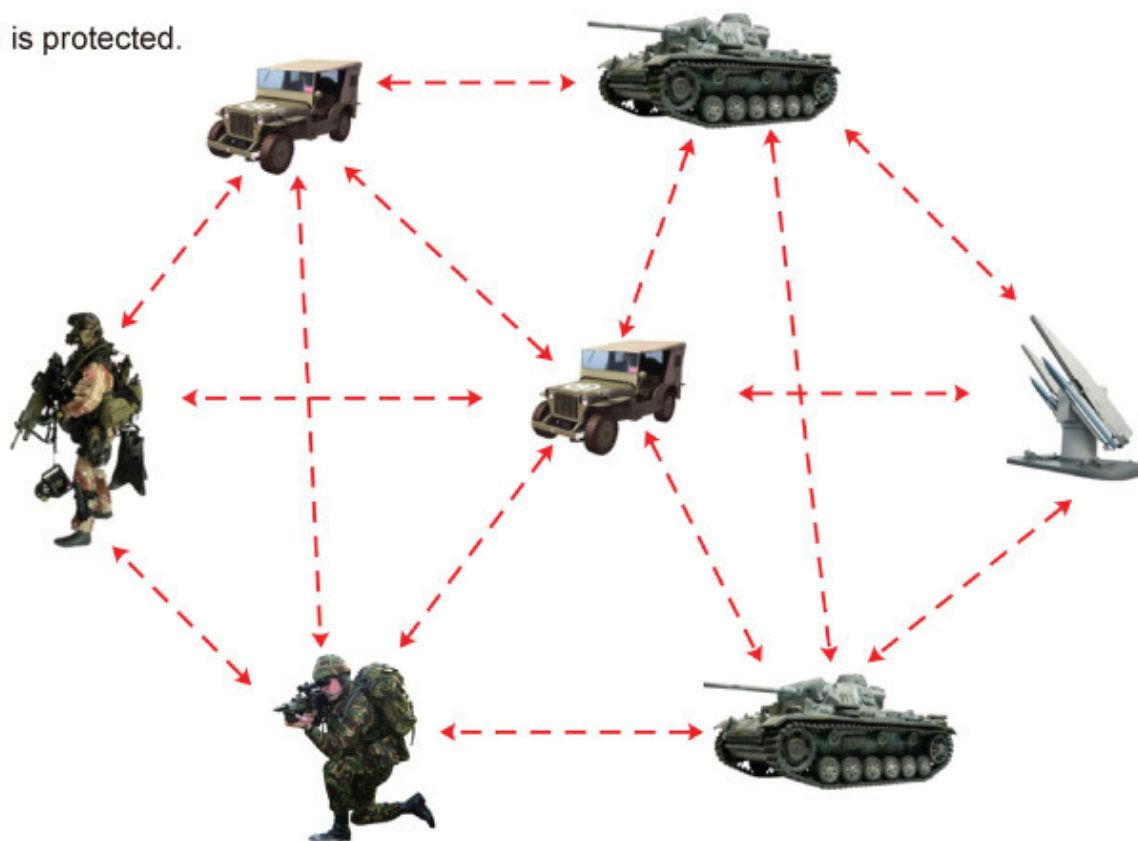


Model	KWG-6080	KWG-6080P	KWG-6089	KWG-6090
Radio	802.11b/g/n	802.11b/g/n	802.11b/g/n	802.11b/g/n
Type	Wall	Wall	Ceiling	Wall / Ceiling
LAN	2 x 10/100/1000 BaseT	2 x 10/100/1000 BaseT	1 x 10/100/1000 BaseT	1 x 10/100 BaseT
	Auto-MDIX	Auto-MDIX	Auto-MDIX	Auto-MDIX
PoE In	802.3af	802.3af	802.3af	802.3af
PoE Out	NA	802.3af	NA	NA
LED	Power /Ethernet /Wireless	Power /Ethernet /Wireless	Power /Ethernet /Wireless	Ethernet /Wireless
Reset Button	Yes	Yes	Yes	Yes
Output Power	23 dBm	23 dBm	23 dBm	18dBm
Sensitivity	-90dBm@6Mbps -76dBm@54Mbps -70dBm@HT20 -66dBm@HT40	-90dBm@6Mbps -76dBm@54Mbps -70dBm@HT20 -66dBm@HT40	-90dBm@11Mbps -76dBm@54Mbps -73dBm@HT20 -70dBm@HT40	-90dBm@11Mbps -76dBm@54Mbps -73dBm@HT20 -70dBm@HT40
Antenna	Built-in 2 dBi x1	Built-in 2 dBi x1	Built-in 2 dBi x1	Built-in 2 dBi x2
Watchdog	Yes	Yes	Yes	Yes
Operation Mode	AP /Bridge /AP Client	AP /Bridge /AP Client	AP /Bridge /AP Client	AP /Bridge /Client /Repeater
DHCP	DHCP Client / Server	DHCP Client / Server	DHCP Client / Server	DHCP Client / Server
Firewall	Yes	Yes	Yes	No
Virtual AP	Yes (Up to 8 VAP)	Yes (Up to 8 VAP)	Yes (Up to 8 VAP)	NA
VLAN	Yes	Yes	Yes	Yes
IAPP	No	No	No	Yes
MAC Control	Yes	Yes	Yes	Yes
WEP	64 / 128 / 152 bit	64 / 128 / 152 bit	64 / 128 / 152 bit	64 / 128 / 152 bit
WPA/WPA2	Yes	Yes	Yes	Yes
Wireless Isolation	Yes	Yes	Yes	Yes
Hidden SSID	Yes	Yes	Yes	Yes
Web Base Management	Yes	Yes	Yes	Yes
SNMP	Yes	Yes	Yes	No
Windows Tool	WVIEW 2	WVIEW 2	WVIEW 2	WVIEW 2
Operation Temperature	0 ~ 40°C	0 ~ 40°C	0 ~ 40°C	0 ~ 40°C
Operation Humidity	5 ~ 95% RH			
Weight	150g	150g	150g	50g
Dimension	119.5 x 74.5 x 64mm (US) 109.3 x 93.4 x 64mm (EU) 70 x 36.5 x 64mm (Body)	119.5 x 74.5 x 64mm (US) 109.3 x 93.4 x 64mm (EU) 70 x 36.5 x 64mm (Body)	125 x 125 x 64mm	165 x 60 x 34 mm

WiMESH[®] **KW7000, Wireless MESH Emergency Network Solution**

KW7000 Series is a high performance wireless MESH network equipment. The wireless node can self-configure, dispose the network, and the network failure can be repaired automatically so that the overall performance and the usability achieves the optimization. This equipment makes use of advance algorithm to enhance the throughput and low time-out from the centre to the edge of the network. This equipment is not only the wireless MESH junction point, but also may simultaneously support the wireless hotspot covering. It will provide the wireless broadcast access and the high bandwidth audio frequency/data/video frequency service. KW7000 Series MESH 54Mbps Outdoor Bridge 2.4GHz / 5.8GHz.

By connecting a KW7000 Series wireless Access Point to your wired network, users can enjoy wireless Internet access faster than ever before. Meanwhile, robust security ensures the Internet connection is protected.



KWA-O7000
KWG-O7000



KWAG-O7100HP



	KWA-O7000	KWG-O7000	KWAG-O7100HP
HARDWARE			
CPU / Memory	IXP 422 266MHz / 8MB Flash + 32MB SDRAM		
LAN	1 x 10/100BaseT RJ-45 with Auto-MDIX		
Power Over Ethernet	Yes, 802.3af, w/ Lighting Protector	Yes, 802.3af, w/ Lighting Protector	Yes, 802.3af, w/ Lighting Protector
Default button	Yes	Yes	Yes
PHYSICAL			
Antenna	1 N Connector	1 N Connector	2 N Connectors
Frequency	5GHz (Single RF)	2.4GHz (Single RF)	2.4 / 5GHz (Dual RF)
Enclosure	Metal Enclosure, IP67 verified		
Maximum Output Power	20dBm @54Mbps	21dBm @54Mbps	23dBm @6Mbps (11a)
			30dBm @1Mbps (11b/g)
Sensitivity	54Mbps: ≤-70dBm	54Mbps: ≤-72dBm	6Mbps: ≤-90dBm (11a)
			1Mbps: ≤-97dBm (11b/g)
Dimension	259 × 250 × 75 mm	259 × 250 × 75 mm	300 × 250 × 8.0 mm
Weight	1.8 Kg	1.8 Kg	2.6 Kg
ENVIRONMENT			
Operating Temperature	-20 ~ 65C	-20 ~ 65C	-20 ~ 65C
Storage Temperature	-20 ~ 80C	-20 ~ 80C	-20 ~ 80C
Storage Humidity	5 ~ 95% RH	5 ~ 95% RH	5 ~ 95% RH
FEATURE			
Operation Modes	AP, MESH 802.11s	AP, MESH 802.11s	AP, MESH 802.11s
Link Test	Yes	Yes	Yes
WMM (Next Edition)	Yes	Yes	Yes
Radio Modes Standard	802.11a Mode Standard	802.11b/g Mode Standard	802.11a/b/g Mode
MESH Diagnose	Yes	Yes	Yes
Channel Bandwidth	20 / 10 / 5 MHz	20 / 10 / 5 MHz	20 / 10 / 5 MHz
Wireless Link Display	Yes	Yes	Yes
SECURITY			
WEP Encryption	64, 128, 152-bit	64, 128, 152-bit	64, 128, 152-bit
WPA	WPA/WPA2 Enterprise/	WPA-PSK WPA Enterprise/	WPA-PSK WPA Enterprise
MANAGEMENT			
Web Base Management	Yes	Yes	Yes
HTTP F/W Upgrade	Yes	Yes	Yes
SNMP	Yes, MIB 2	Yes, MIB 2	Yes, MIB 2
Windows Utility	Yes (Bridge Vision)	Yes (Bridge Vision)	Yes (Bridge Vision)



WiBone®

KW6000, Wireless MIMO Solution 80Mbps@10Km

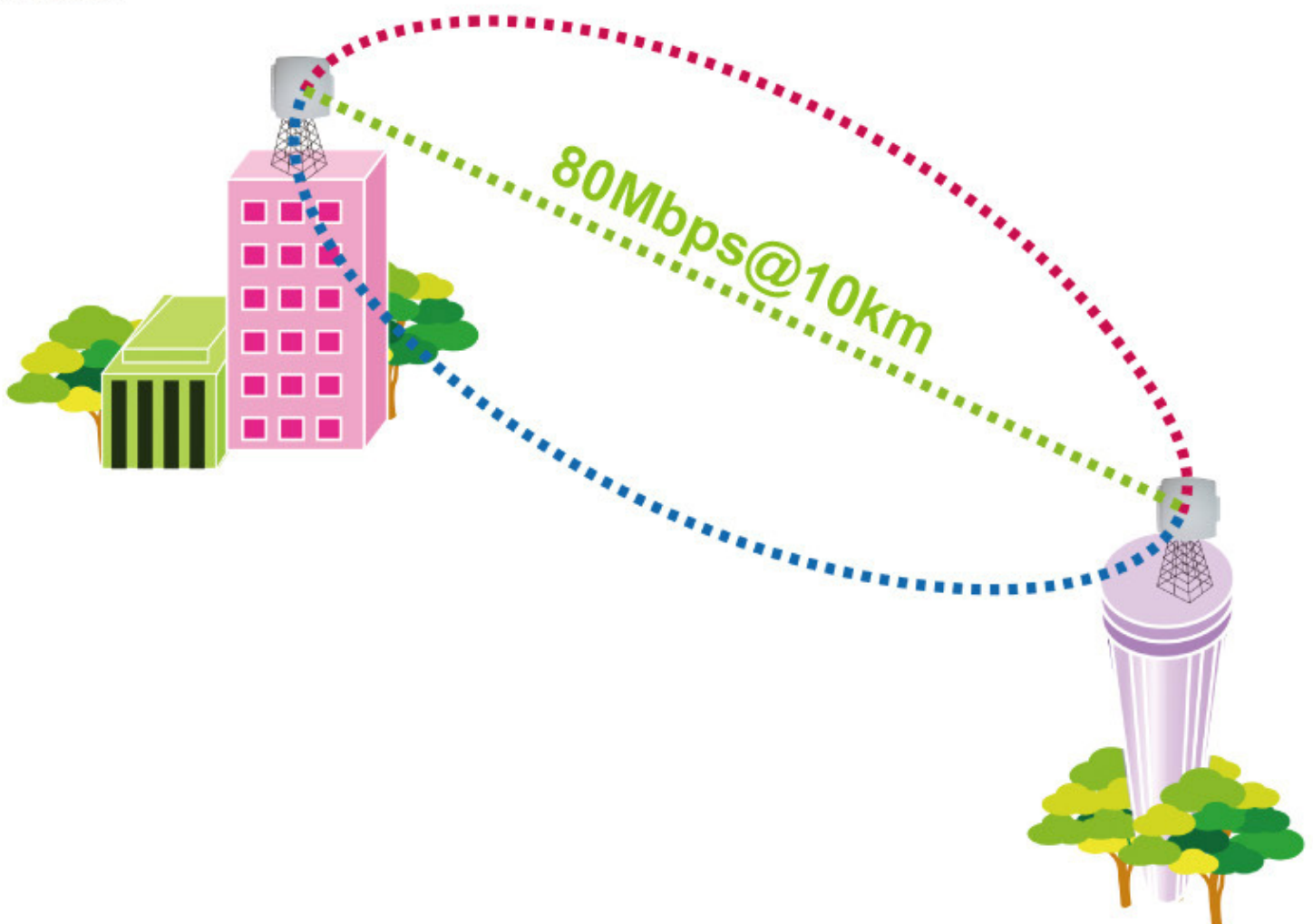
Formosa KW6000 series Wireless MIMO Bridge provides reliable and predictable Wireless Bridge Connection or Wi-Fi Coverage.

With these wireless access points you can:

Augment throughput for high-bandwidth wireless applications
Protect your investment in wireless networking
Increase network reliability for high bandwidth applications

Data rates of 300 Mbps

Multiple input, multiple output technology for enhanced reliability
2.4GHz or 5GHz radio module.





Model	KWA-O6023-I	KWA-O6020-I	KWG-O6021-I	KWG-O6020-I
Frequency	4.9 - 6.1 GHz	4.9 - 6.1 GHz	2.4 - 2.48 GHz	2.4 - 2.48 GHz
LAN	2 x 10/100 BaseT	2 x 10/100 BaseT	1 x 10/100 BaseT	1 x 10/100 BaseT
	Auto-MDIX	Auto-MDIX	Auto-MDIX	Auto-MDIX
PoE	802.3af	PTE (15V@1A)	802.3af	PTE (12V@1A)
PoE Out	12V PTE	12V PTE	NA	NA
Enclosure	IP 66 / Metal and Plastic	IP 55	IP 67	IP 55
LED	Status / Power / wireless / LAN			
Ground	Yes			
Lighting Protector	Yes (Injector)		Yes (Injector)	
Output Power	26dBm@6Mbps 21dBm@54Mbps 26dBm@HT20 25dBm@HT40	26dBm@6Mbps 21dBm@54Mbps 26dBm@HT20 25dBm@HT40	27dBm@11Mbps 26dBm@54Mbps 23dBm@HT20 23dBm@HT40	27dBm@11Mbps 26dBm@54Mbps 23dBm@HT20 23dBm@HT40
Sensitivity	-90dBm@6Mbps -76dBm@54Mbps -70dBm@HT20 -66dBm@HT40	-90dBm@6Mbps -76dBm@54Mbps -70dBm@HT20 -66dBm@HT40	-90dBm@11Mbps -76dBm@54Mbps -73dBm@HT20 -70dBm@HT40	-90dBm@11Mbps -76dBm@54Mbps -73dBm@HT20 -70dBm@HT40
Antenna	Built-in 2x2 22 dBi	Built-in 2x2 16 dBi	Built-in 19 dBi / N Jack	Built-in 8 dBi / N Plug
Operation Temperature	-20 ~ 80 °C	-20 ~ 70 °C	-20 ~ 80 °C	-20 ~ 70 °C
Operation Humidity	10 ~ 95% RH			
Weight	3Kg	0.6Kg	3Kg	0.4Kg
Dimension	372 x 342 x 64 mm	255 x 111 x 48mm	335 x 335 x 81 mm	165 x 60 x 34 mm
Operation Mode	AP / Bridge / CPE / Repeater			
Channel Bandwidth	40 / 20 / 10 / 5 MHz			
Data Bandwidth Control	Yes			
Output Power Management	Yes (Full / Half / Quarter / Eighth / Min.)			
Max. Client Setting	Yes			
RF Scheduling	Yes			
MAC Control	Yes			
WEP	64 / 128 / 152 bit			
WPA/WPA2	Yes			
Wireless Isolation	Yes			
Hidden SSID	Yes			
Firewall	Yes			
VPN	VPN Pass-Through			
Web Base Management	Yes			
SNMP v2	Private MIB / 802.11 MIB			
Time Server	Yes			
Windows Tool	WIVIEW 2			

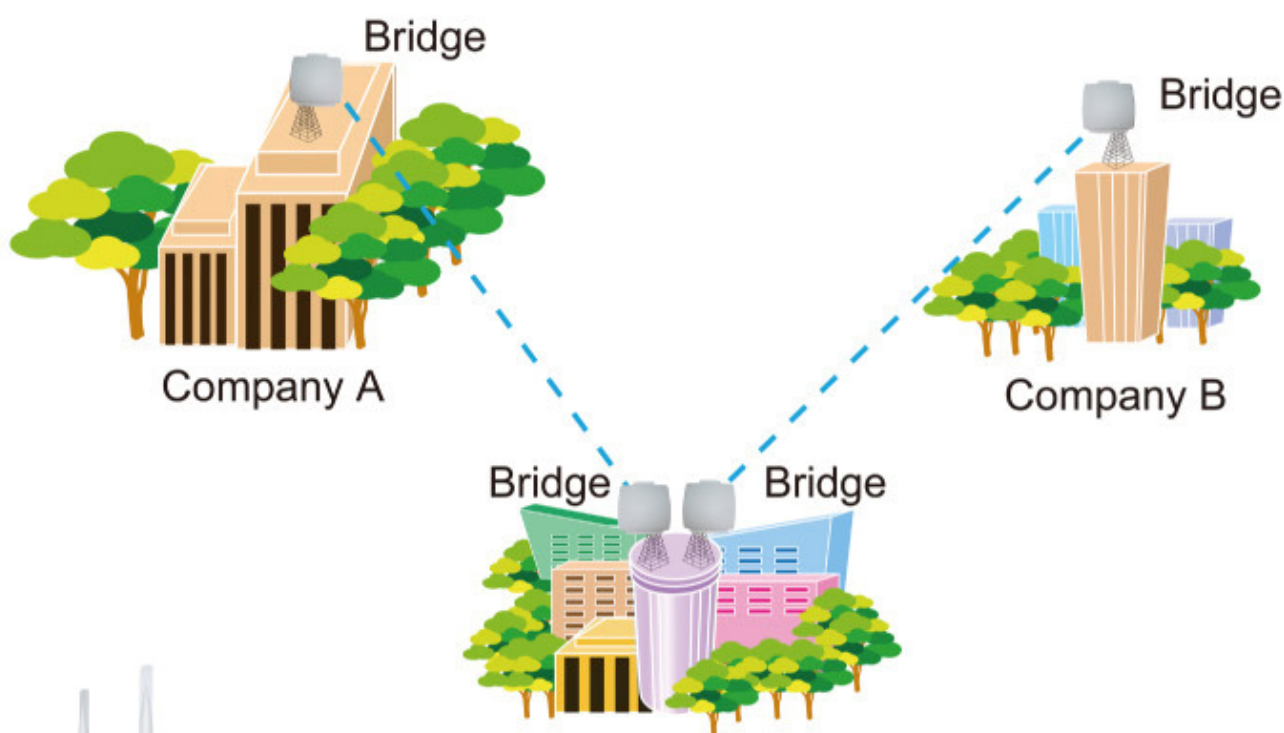


KW5000, Wireless 802.11a/b/g Outdoor Bridge

KW9000, Customization Frequency Wi-Fi Outdoor Bridge

KW5000 Series Outdoor Bridges are designed for Point to Point and Point to multi-Point outdoor application. These bridges with functions of PoE power supply, waterproof, dustproof and coolant can build up a 54Mbps connection between two buildings. Such marvelous products are so suitable to be set up outdoors.

These products supporting further powerful and stabile functions are fully compatible with IEEE 802.11a/b/g standard. Web or SNMP can be your choice to manage these bridges. No doubt, KW5000 Series Outdoor Bridges are the best devices for your inter-building network bridge since its special design.



Dual RF
without Build-in Antenna



KWA-O5000H-I
KWA-O5000HP-I



KWG-O5000-I
KWG-O5000H-I
KWG-O5000HP-I



Single RF
without Build - in Antenna

CPU / Memory	Intel IXP 422, 266MHz / 8MB Flash + 32MB SDRAM		
LAN	1 x 10/100BaseT RJ-45 with Auto-MDIX		
Power Over Ethernet (PoE)	Yes (802.3af)		
Default Button	Yes		
Enclosure	Metal Enclosure, IP 67 Verified		
Lighting Protect	Ethernet		
Operating Mode	AP, Bridge, Repeater, Inter-Building, Station Adapter, NAT Router		
Link Test Tool	Yes (Real Time)		
Virtual AP	Yes (Max. is 8 Virtual AP)		
VLAN	Yes		
QoS	Yes (WMM)		
Auto Reject Clients	Yes, Deny Wireless Clients When Ethernet Error		
Data Bandwidth Control	Yes		
Load Balance	Yes (Flow and Client Load Balance)		
Fast Roaming Support	Yes		
Network Management	Yes (WVIEW®)		
Auto Channel Select	Yes		
SECURITY		MANAGEMENT	
WEP Encryption	64, 128, 152-bit	SNMP V.2	Private MIB, 802.11 MIB
Wireless Isolation	Yes	Windows Utility	Yes
Enable/Disable SSID Broadcast	Yes	Operating Temperature	-20 ~ 70C
WPA / WPA2	Yes		
Firewall	Yes		

Model	802.11 Standard	Antenna dBi	Output Power dBm	Sensitivity dBm	Dimension mm	Weight Kg
KWA-O5000H	802.11a	N Jack	25	-90	259 x 250 x 75	1.8
KWA-O5000H-I	802.11a	23	25	-90	335 x 335 x 81	2.9
KWA-O5000HP	802.11a	N Jack	26	-94	259 x 250 x 75	1.8
KWA-O5000HP-I	802.11a	23	26	-94	335 x 335 x 81	2.9
KWAG-O5000	802.11a or b/g	N Jack	17@11a 21@11b/g	-89@11a -91@11b/g	259 x 250 x 75	1.8
KWAA-O5100H	802.11a and a	N + N Jack	25 / 25	-90 / -90	300 x 250 x 80	2.6
KWAA-O5100H-I	802.11a and a	23 + N Jack	25 / 25	-90 / -90	335 x 250 x 81	3.7
KWAG-O5100	802.11a and b/g	N + N Jack	25@11a 19@11b/g	-90@11a -87@11b/g	300 x 250 x 80	2.6
KWAG-O5100-I	802.11a and b/g	23 + N Jack	25@11a 19@11b/g	-90@11a -87@11b/g	335 x 335 x 81	3.7
KWG-O5000	802.11b/g	N Jack	19	-87	259 x 250 x 75	1.8
KWG-O5000-I	802.11b/g	19	19	-87	259 x 335 x 81	2.9
KWG-O5000H	802.11b/g	N Jack	24	-92	259 x 250 x 75	1.8
KWG-O5000H-I	802.11b/g	19	24	-92	335 x 335 x 81	2.9
KWG-O5000HP	802.11b/g	N Jack	29	-97	259 x 250 x 75	1.8
KWG-O5000HP-I	802.11b/g	19	29	-97	335 x 335 x 81	2.9
KWGG-O5100	802.11b/g	N + N Jack	19 / 19	-87 / -87	335 x 335 x 81	2.6
KWGG-O5100H	802.11b/g	N + N Jack	24 / 24	-92 / -92	335 x 335 x 81	2.6
KWGG-O5100HP	802.11b/g	N + N Jack	29 / 29	-97 / -97	335 x 335 x 81	2.6
KWN-O5000	900MHz	N Jack	25	-92	295 x 250 x 75	1.8
KWAN-O5100	900MHz / 11a	N Jack	25@11a 25@900	-90@11a -92@900	335 x 335 x 81	2.6
KWGN-O5100	900MHz / 11g	N Jack	19@11g 25@900	-87@11a -92@900	335 x 335 x 81	2.6
KW9000 Supports Frequency: 700MHz / 900MHz / 2.3-2.5GHz / 3.6GHz / 4.9-6.1GHz						

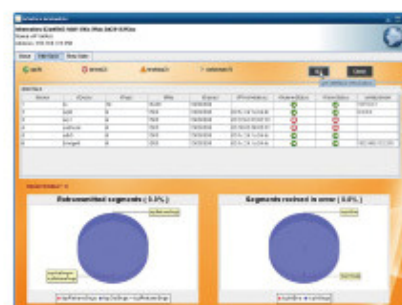
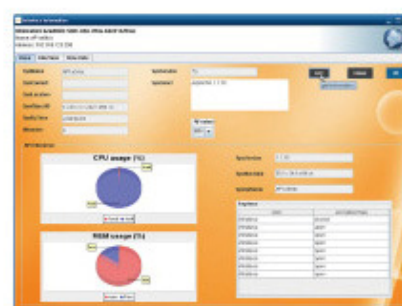
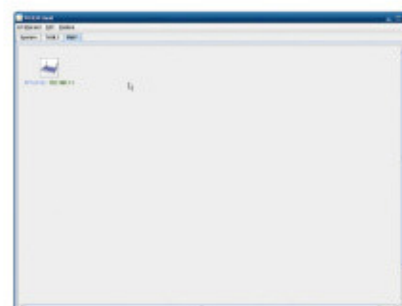


Centralized Management of Base Station

WiVIEW® is a powerful tool to help you manage your base stations much easier; it contains Base Station Searching from networks, Group-Based Policy Renew/Modify, Centralized Base Station configuration, Layout of AP, Base Station Monitor and Flow Rate, etc.



- Base Station Searching
- Base Station Status Monitor
 - Base Station Alarm via Mail Message
- Group-Based Policy Renew/Modify
- Base Station's Status
 - The usage of Base Station's Resource
 - Information of Interfaces
 - Details about Flow Rate
- Record of Log
 - Normal
 - History
- Centralize monitor and configuration of Base Stations
 - Status
 - ◆ Base Station Information
 - ◆ Connections
 - ◆ Statistics
 - System Setup
 - ◆ General
 - ◆ RADIUS
 - ◆ IP Address
 - ◆ Virtual Server
 - ◆ Firewall Management
 - Wireless Setup
 - ◆ Basic Settings
 - ◆ VAP /VLAN
 - ◆ Access Control
 - ◆ WDS
 - ◆ Advance Settings
 - ◆ Balance Settings
 - Management
 - ◆ Remote Management
 - ◆ Event Log
 - ◆ Firmware Upgrade



Formosa understands there are many areas of expertise that is required to get a new product off the ground.

Particularly in the areas of embedded wireless integration, where there are many engineering disciplines that are needed such as:

RF Design

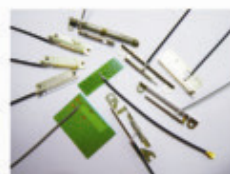
Antenna Design

Software Porting

Driver Development

Application Software

Formosa can offer you one-stop total solution to help you to integrate wireless LAN into your device.



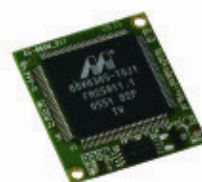
Antenna Design

Embedded Antenna

Porting Software Development

Driver Porting

WiFi Control Tool



RF Design

Embedded WiFi Module

AN-622

Standard	802.11a/ b/ g/ n (2 x 2)
RF Chipset	Atheros AR9220
Interface	mini-PCI Type III-A
Tx Power	20 dBm
Rx Sensitivity	-89 dBm
Connector	2 U.FL



AN-622H

Standard	802.11a /n (2 x 2)
RF Chipset	Atheros PAR9220
Interface	MiniPCI Type III B
Tx Power	26 dBm
Rx Sensitivity	-94 dBm
Connector	2 U.FL or R-MMCX



XN-623

Standard	802.11b/g/n (2 x 2)
RF Chipset	MAC/BB PAR9223
Interface	mini PCI
Tx Power	17 dBm
Rx Sensitivity	-83 dBm
Connector	2 U.FL



XN-180

Standard	802.11n
RF Chipset	Marvell 8787
Interface	SDIO / G-SPI
Tx Power	17 dBm
Rx sensitivity	-86 dBm
Connector	1 U.FL



XG-182L/M

Standard	802.11g
RF Chipset	Marvell 8686
Interface	SDIO/SPI
Tx Power	13 dBm
Rx Sensitivity	-82 dBm
Connector	1. U.FL



WS-120M

Standard	802.11g
RF Chipset	Atheros AR6101VG
Interface	RS232/485
Tx Power	17 dBm
Rx Sensitivity	-95 dBm
Connector	1 U.FL



Formosa is absolutely good at wireless integration. With safety and convenience, wireless technology can be well used in various aspects. We are firmly convinced that wireless application makes job easier to do and life better to enjoy.

What we can offer, for example,

Wireless Surveillance Integration Wireless IP voice Integration

Wireless Industrial Sensor Integration

Applications

Emergency Relief System Forrest Monitoring Water Monitoring
(Rivers or Reservoirs) Landslide Monitoring Agriculture, Fisheries
and Animal Husbandry, Monitoring Weather Monitoring





KPE-5008GT

PoE Power Switch
Feature

10/100/1000 Mbps
48Vdc Output Power
30 Watts max per port, 125 or 200 Watts total
8-Port PoE Switch
IEEE802.3at-draft2.0 standard compliant.
IEEE 802.3af backward compatible



KPE-5008GT2

PoE Power Switch
Feature

30W Per Port
Port-based VLAN
Power on / off for each port
8 Port 10/100/1000 Mbps PoE + 2 SFP Slot
Rack Mount
IEEE 802.3af/att



KPE-5016GE

PoE Power Switch
Feature

15.4W Per Port
Port-based VLAN
Power on / off for each port
16 Port 10/100/1000 Mbps PoE + 4 SFP Slot
Rack Mount
IEEE 802.3af



KPE-5024GE

Support Switch
Feature

15.4W Per Port
Port-based VLAN
Power on / off for each port
24 Port 10/100/1000 Mbps PoE + 4 SFP Slot
Rack Mount
IEEE 802.3af



KPE-3016G

PoE Power Hub
Feature

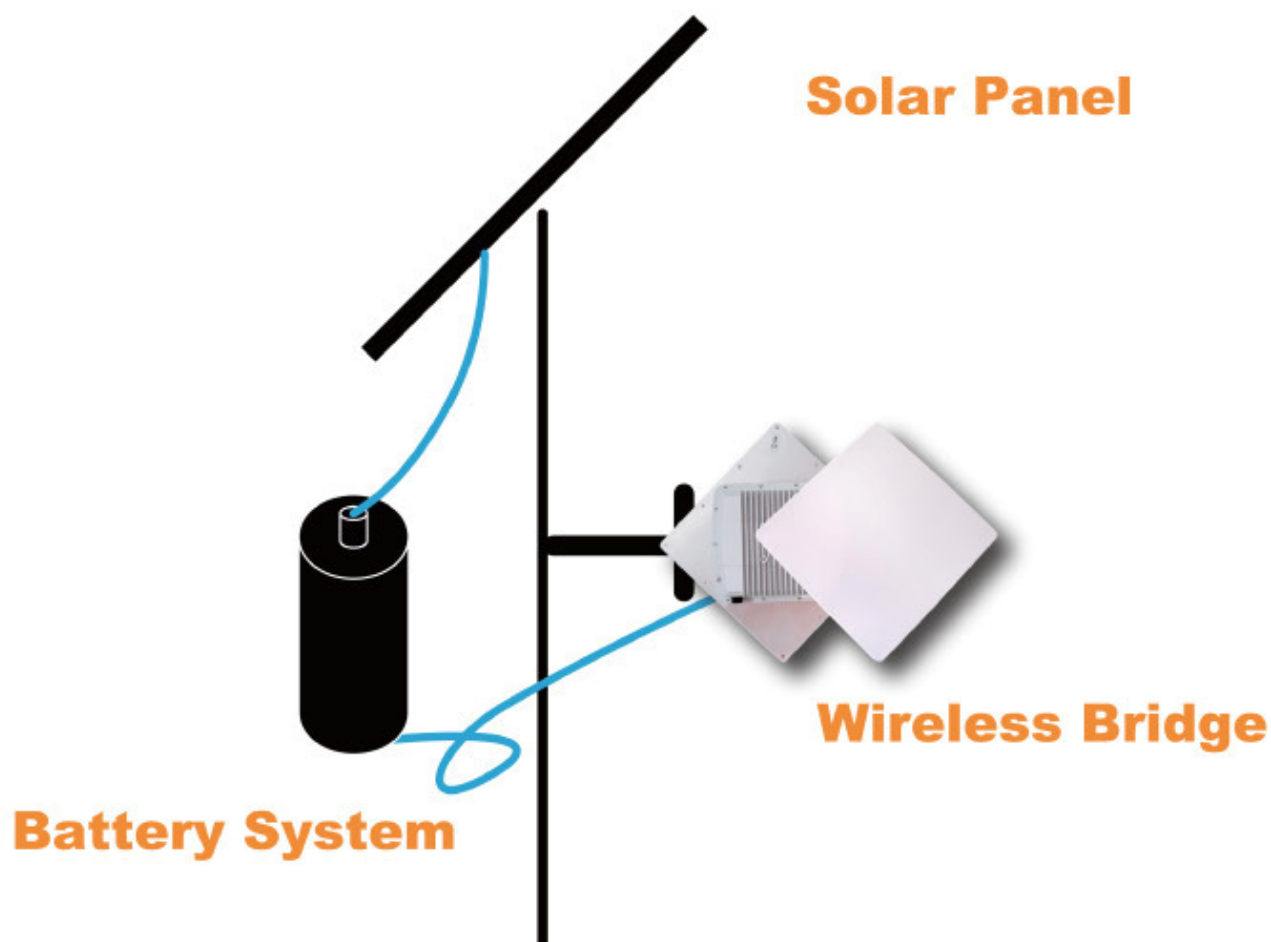
15.4W Per Port
16 10/100/1000Mbps Data in Port
16 10/100/1000Mbps Data/Power out Port





Solar Power

Portable Outdoor Solar System



KSP-O1000 is a portable outdoor solar system specially designed for telecommunication, wireless network and surveillance application.

Enabling fast, easy, maintenance-free, zero-carbon footprint network infrastructure deployment even in remote areas and extreme outdoor environment.

Key Features & Benefits

- Solar Panel: 30W/18V
- Capacity: 30AH Lithium Polymer Battery
- Output Voltage: 48V PoE
- Solar Panel Dimension: 420 x 635 x 30 mm
- Weight of Solar Panel: 4Kg
- Battery System Dimension: 300 x 250 x 80 mm
- Weight of Battery System: 5Kg
- IP67, Waterproof
- Vent design

AMP58-1W

Operating Range	5150-5850 MHz
Operating Mode	Bi-directional
Output Power	30 dBm
Transmit Gain	18 dB
Connector	N Type



AMP24-4W

Operating Range	2400-2500MHz
Output Power	37 dBm
Transmit Gain	15 dB
Connector	SMA



AMP24G-5mW

Operating Range	2400-2500MHz
Operating Mode	Bi-directional
Output Power	27 dBm
Transmit Gain	17 dB
Connector	SMA





Arrestor / Divider

Arrestor 6

1-6GHz Lighting Arrestor
VSWR

Insertion Loss

Insulation Resistance

DC Breakdown Voltage

Impulse Discharge Voltage

DC~4GHz 1.5 (MAX) : 1

4GHz~6GHz 1.7 (MAX) : 1

0.8dB (max)@DC~6GHz(Max 0.9 dB)

DC 50V > 10000MΩ(Min 10000 MΩ)

90V ± 20%(Max 108V Min 72V)

5KA min (wave 8/20 μs) (Min 5000V)

5KV min (wave 1.2/50 μs)(2)) (Min 5000V)



Arrestor 3

2-3GHz Lighting Arrestor

DC breakdown voltage

Pulse breakdown voltage

Overvoltage protection

AC current range

Pulse current range

Isolation resistor

Transmission loss

Frequency range

Gap can

230 +/- 20% (100V/s Speed)

<600V (100V/s speed)

>150V (100mA, <150ms)

20A

200A

1000m ohms

-1.5dB

DC2500MHz

1.5P



DIV24-02

2 Way Divider

Frequency Range :

2 ~ 3 GHz

Insertion loss :

≤ 1.8 dB

Impedance :

50Ω± 5Ω

VSER :

≤ 2.0

Isolation :

≤ 2.0 dB

Power Handling :

10 watts

Phase unbalance :

± 2 degrees max



DIV50-02

2 Way Divider

Frequency Range :

4 ~ 6 GHz

Insertion loss :

≤ 1.5 dB

Impedance :

50Ω± 5Ω

VSER :

≤ 2.0

Isolation :

≤ 2.0 dB

Power Handling :

10 watts

Phase unbalance :

± 5 degrees max



TOUCH AND CONNECT!
wireless



WNet
Green Network™



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<http://www.tw-wireless.com>

