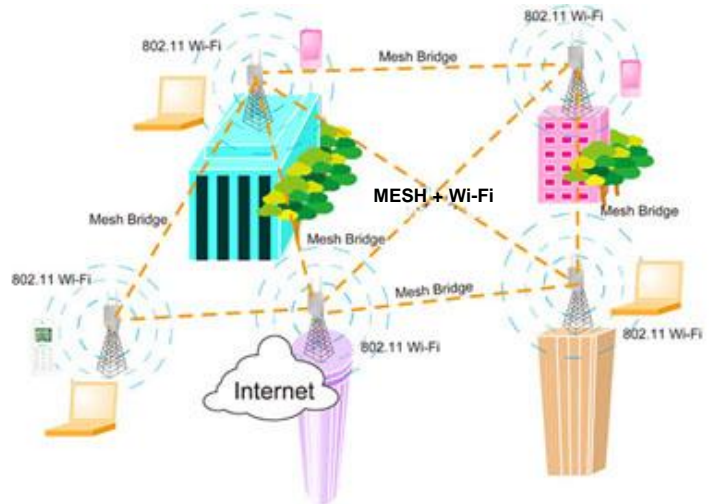


# KW7400 Series MIMO WiMESH Outdoor Bridge 4.8-6.2 GHz

KW7400 Series is a high-performance wireless MIMO WiMESH 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 MIMO WiMESH 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.

By connecting a KW7400 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.



**KW7400 Single RF**  
**KW7500 Dual RF**  
**KW7600 Triple RF**

**WiMESH®**

**TOUCH AND CONNECT!™**



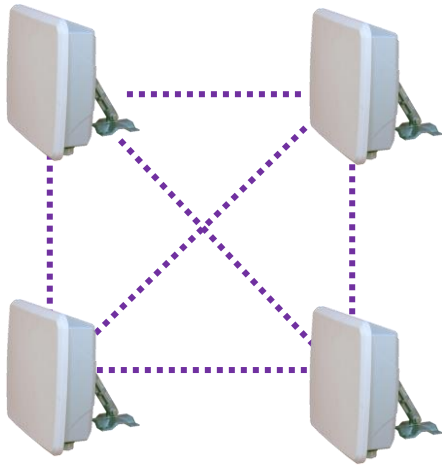
**WNet**  
Green Network™

## Functions

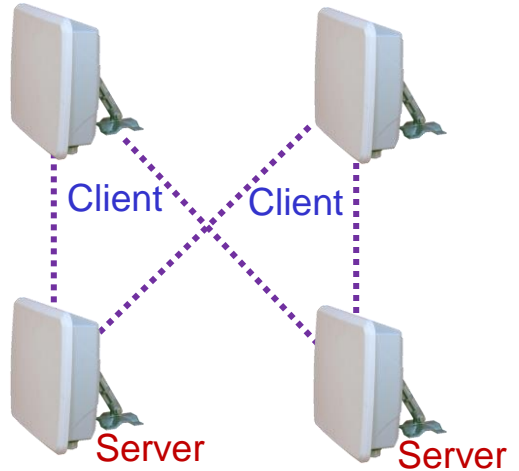
1. Long-distance connections via narrow bandwidth and adjustable TX power
2. Self-Configure networking with redundant links
3. Self-Heal network
4. Support Bandwidth Aware Routing Algorithm, to avoid heavy traffic path
5. Customized high-gain & TX power to extend connectable distance
6. Up to 256 Nodes in a WiMESH Group
7. The real throughput of 50 hops connection is 150Mbps+ (Dual RF, MIMO WiMESH)
8. Support Unstructured, Server / Client, Hybrid Server, Hybrid Client MESH Mode
9. Support Adding Bridges into MESH Protocol Rule via Wireless or Wired Port.
10. Support Software and Hardware Watchdog
11. Support Channel Scan to check wireless environment
12. Support Fast Roaming in Base Station / CPE connection
13. Support Tx on one Antenna, Rx on another Antenna.
14. Support Redundant link in Bridge mode (for KW50-O7500 / KW50-O7600)
15. RSSI Strength LED Support
16. Vent Support
17. Real-time Status : Site Name, FW Version, GPS Coordinates, Encryption, Up time, Link to Site, Channel, Neighbor, Tx Rate, Rx Rate, Tx Modulation, Rx Modulation, IP, MAC, Hop Count, Local RSSI, Remote RSSI, Total Throughput, Total Packets, Unicast Packets, Multicast Packets, Error Packets, Dropped Packets
18. Wireless Parameters : Operation Mode, Channel, Channel Bandwidth, Tx Power, Data Rate, Modulation, Max. Distance, Max. Association Stations, Multi Path Routing
19. Flash ROM 16Mbytes, SDRAM 128Mbytes

## Customization

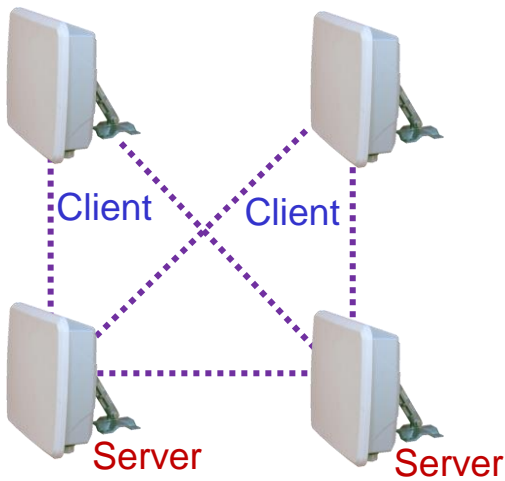
1. On-Board GPS Support
2. Extra Channel Bandwidth Selection – 6 / 7 / 8 / 12 / 14 MHz
3. Channel Frequency Drift
4. Tx Power Booster Modify
5. Support RF Module: 802.11a/g/n
6. Login logo Customization
7. Multiple Level Login account / password management



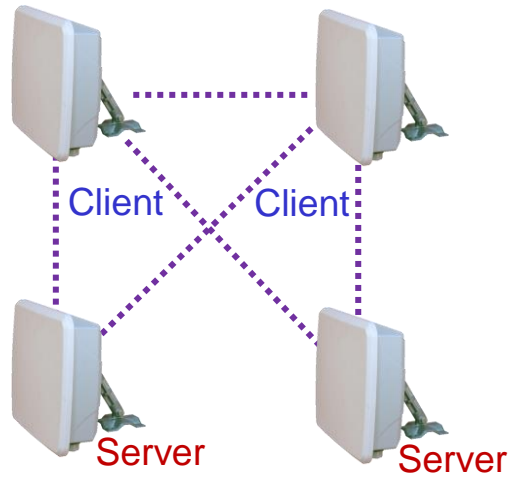
**Unstructured Mode**



**Server / Client Mode**



**Hybrid Server / Client Mode**



**Hybrid Client / Server Mode**

| <b>WiMESH®</b>          | <b>KW50-O7400</b>   | <b>KW50-O7410<br/>KW50-O7410-5W</b> | <b>KW50-O7500</b>                        | <b>KW50-O7600</b>  |
|-------------------------|---|-------------------------------------|--|--|
| <b>HARDWARE</b>         |   |                                     |  |  |
| LAN                     | 1 x 10/100/1000 Mbps RJ-45 with Auto-MDIX   |                                     |  |  |
| Power Over Ethernet     | Yes, 802.3af/at, w/ Surge Voltage 6KV / Discharge Current 10KA / Response Time < 5ns / Standard: IEC64000-4-5 |                                     |  |  |
| Default button          | Yes   | Yes                                 | Yes                                      | Yes  |
| <b>PHYSICAL</b>         |   |                                     |  |  |
| Antenna                 | 2 N Connectors<br>MIMO  | 1 N Connectors<br>SISO              | 4 N Connectors<br>MIMO                   | 6 N Connectors<br>MIMO   |
| Frequency               | 4.8-6.2 GHz (Single RF)   | 4.8-6.2 GHz (Single RF)             | 4.8-6.2 GHz (RF 1)<br>4.8-6.2 GHz (RF 2) | 4.8-6.2 GHz (RF 1)<br>4.8-6.2 GHz (RF 2)<br>4.8-6.2 GHz (RF 3) |
| Enclosure               | Metal Enclosure, IP68 verified  |                                     |  |  |
| Maximum Output Power    | 25 dBm  | 22 dBm (7410)<br>37 dBm (7410-5W)   | 25 dBm (RF 1)<br>25 dBm (RF 2)           | 25 dBm (RF 1)<br>25 dBm (RF 2)<br>25 dBm (RF 3)                |
| Sensitivity             | -95 dBm   | -95 dBm (7410)<br>-98 dBm (7410-5W) | -95 dBm (RF 1)<br>-95 dBm (RF 2)         | -95 dBm (RF 1)<br>-95 dBm (RF 2)<br>-95 dBm (RF 3)             |
| Dimension               | 259 x 250 x 75 mm   | 259 x 250 x 75 mm                   | 259 x 250 x 75 mm                        | 259 x 250 x 75 mm  |
| Weight                  | 1.8 Kg  | 1.8 Kg (7410)<br>2.0 Kg (7410-5W)   | 1.9 Kg                                   | 2.0 Kg   |
| <b>ENVIRONMENT</b>      |   |                                     |  |  |
| Operating Temperature   | -30 ~ 75C   | -30 ~ 75C                           | -30 ~ 75C                                | -30 ~ 75C  |
| Storage Humidity        | 5 ~ 95% RH  | 5 ~ 95% RH                          | 5 ~ 95% RH                               | 5 ~ 95% RH   |
| <b>FEATURE</b>          |   |                                     |  |  |
| Operation Modes         | Base Station (Support 802.11a/n 300Mbps Wi-Fi AP Mode, Up to 8 SSID/RF) / CPE / P2P Bridge / WiMESH           |                                     |  |  |
| Link Test               | Yes (Local / Remote)  | Yes (Local / Remote)                | Yes (Local / Remote)                     | Yes (Local / Remote)   |
| Max. MESH Nodes         | 256   | 256                                 | 256+256                                  | 256+256+256  |
| Spanning Tree           | Yes   | Yes                                 | Yes                                      | Yes  |
| VLAN                    | Yes (802.1Q)  | Yes (802.1Q)                        | Yes (802.1Q)                             | Yes (802.1Q)   |
| QoS                     | Yes (802.1p)  | Yes (802.1p)                        | Yes (802.1p)                             | Yes (802.1p)   |
| MAP                     | Yes   | Yes                                 | Yes                                      | Yes  |
| Multi Path              | 4 (Max.)  | 4 (Max.)                            | 4 (Max.)                                 | 4 (Max.)   |
| Performance             | 30,000 PPS  | 15,000 PPS                          | 40,000 PPS                               | 45,000 PPS   |
| Channel Bandwidth (MHz) | 52 / 40 / 30 / 20 / 15 / 10 / 5   | 52 / 40 / 30 / 20 / 15 / 10 / 5     | 52 / 40 / 30 / 20 / 15 / 10 / 5          | 52 / 40 / 30 / 20 / 15 / 10 / 5                                |
| Dual FW Image           | Yes   | Yes                                 | Yes                                      | Yes  |
| Encryption              | WPA PSK TKIP / WPA2 PSK AES 128 bits  |                                     |  |  |
| <b>MANAGEMENT</b>       |   |                                     |  |  |
| Supported Interface     | Web / ICMP / SSH  | Web / ICMP / SSH                    | Web / ICMP / SSH                         | Web / ICMP / SSH   |
| SNMP                    | Yes, MIB 2  | Yes, MIB 2                          | Yes, MIB 2                               | Yes, MIB 2   |
| Watch dog               | Software / Hardware   | Software / Hardware                 | Software / Hardware                      | Software / Hardware  |
| IGMP                    | V2 / V3 Snooping  | V2 / V3 Snooping                    | V2 / V3 Snooping                         | V2 / V3 Snooping   |
| NTP                     | Yes   | Yes                                 | Yes                                      | Yes  |
| Windows Utility         | Yes (WiVIEW 2)  | Yes (WiVIEW 2)                      | Yes (WiVIEW 2)                           | Yes (WiVIEW 2)   |
| Information             | Device name, IP address, MAC address, Frequency, RSSI   |                                     |  |  |

## SISO (Single RF)

| Modulation               | BPSK |     |     | QPSK |     | 16QAM |     | 64QAM |     |
|--------------------------|------|-----|-----|------|-----|-------|-----|-------|-----|
|                          | FEC  | 1/2 | 1/2 | 3/4  | 1/2 | 3/4   | 2/3 | 3/4   | 5/6 |
| Throughput @5MHz Mbps    | 1    | 2   | 3   | 4    | 7   | 9     | 10  | 13    |     |
| Throughput @10MHz Mbps   | 2    | 5   | 7   | 9    | 15  | 20    | 24  | 27    |     |
| Throughput @15MHz Mbps   | 4    | 7   | 11  | 15   | 23  | 31    | 38  | 42    |     |
| Throughput @20MHz Mbps   | 5    | 10  | 16  | 20   | 32  | 42    | 48  | 56    |     |
| Throughput @30MHz Mbps   | 8    | 15  | 24  | 31   | 49  | 64    | 73  | 86    |     |
| Throughput @40MHz Mbps   | 10   | 22  | 33  | 46   | 69  | 92    | 103 | 126   |     |
| Throughput @52MHz Mbps   | 12   | 26  | 40  | 55   | 83  | 110   | 124 | 151   |     |
| Sensitivity @ 20MHz dBm  | -90  | -89 | -87 | -84  | -81 | -78   | -76 | -74   |     |
| Output Power @ 20MHz dBm | 23   | 23  | 23  | 22   | 22  | 21    | 21  | 21    |     |



**SISO**  
KW50-O7410  
KW50-O7410-5W



**MIMO**  
KW50-O7400  
KW50-O7500  
KW50-O7600

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## MIMO (Single RF)

| Modulation               | BPSK |     |     | 16QAM |     | 64QAM |     |     |
|--------------------------|------|-----|-----|-------|-----|-------|-----|-----|
|                          | FEC  | 1/2 | 3/4 | 1/2   | 3/4 | 2/3   | 3/4 | 5/6 |
| Throughput @5MHz Mbps    | 1    | 2   | 3   | 10    | 15  | 20    | 23  | 25  |
| Throughput @10MHz Mbps   | 2    | 5   | 7   | 21    | 31  | 43    | 48  | 53  |
| Throughput @15MHz Mbps   | 3    | 7   | 11  | 30    | 45  | 59    | 65  | 70  |
| Throughput @20MHz Mbps   | 5    | 10  | 15  | 48    | 72  | 95    | 105 | 112 |
| Throughput @30MHz Mbps   | 7    | 16  | 24  | 74    | 108 | 137   | 145 | 164 |
| Throughput @40MHz Mbps   | 10   | 21  | 33  | 99    | 144 | 182   | 193 | 220 |
| Throughput @52MHz Mbps   | 11   | 23  | 37  | 112   | 163 | 205   | 218 | 249 |
| Sensitivity @ 20MHz dBm  | -90  | -89 | -87 | -84   | -81 | -78   | -76 | -74 |
| Output Power @ 20MHz dBm | 26   | 25  | 25  | 24    | 24  | 23    | 23  | 23  |



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