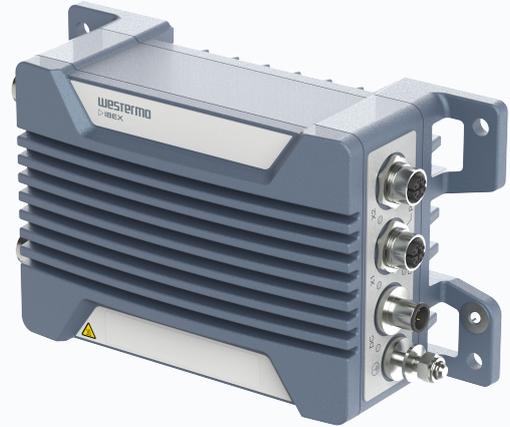


Industrial Wi-Fi 6 Access Point

Ibex-1310 series

- **Compact WLAN access point**
 - Dual Wi-Fi 6 802.11ax WLAN interfaces
 - Concurrent 2.4 GHz and 5 GHz
 - Low power consumption
 - Cybersecurity features supporting critical infrastructure installations
- **Designed for heavy industry usage**
 - IP66 and -40 to +70°C
 - Compact design with M12 interfaces
 - 9.6 to 60 VDC isolated power supply
- **Latest generation 802.11 design**
 - IEEE 802.11ax for maximum efficiency
 - Client management features
 - Flexible and easy setup



The Ibex-1310 is a concurrent dual-band 802.11ax Wi-Fi 6 access point and client product for industrial vehicle and stationary applications. Ibex-1310 provides reliable efficient high-speed data transfers with latest cyber security features.

The Ibex-1310 is designed to withstand the tough environments, exposed to constant vibration, extreme temperatures, humidity, and demanding electromagnetic environments. It is also approved for use in vehicles, such as buses.

A GORE-TEX® membrane prevents internal condensation. High-level isolation between all interfaces enables direct connectivity to vehicle auxiliary power and protects against overvoltage and spikes/surge. IP66 protection prevents ingress of water. N-type connectors provide industry standard interface to external antennas.

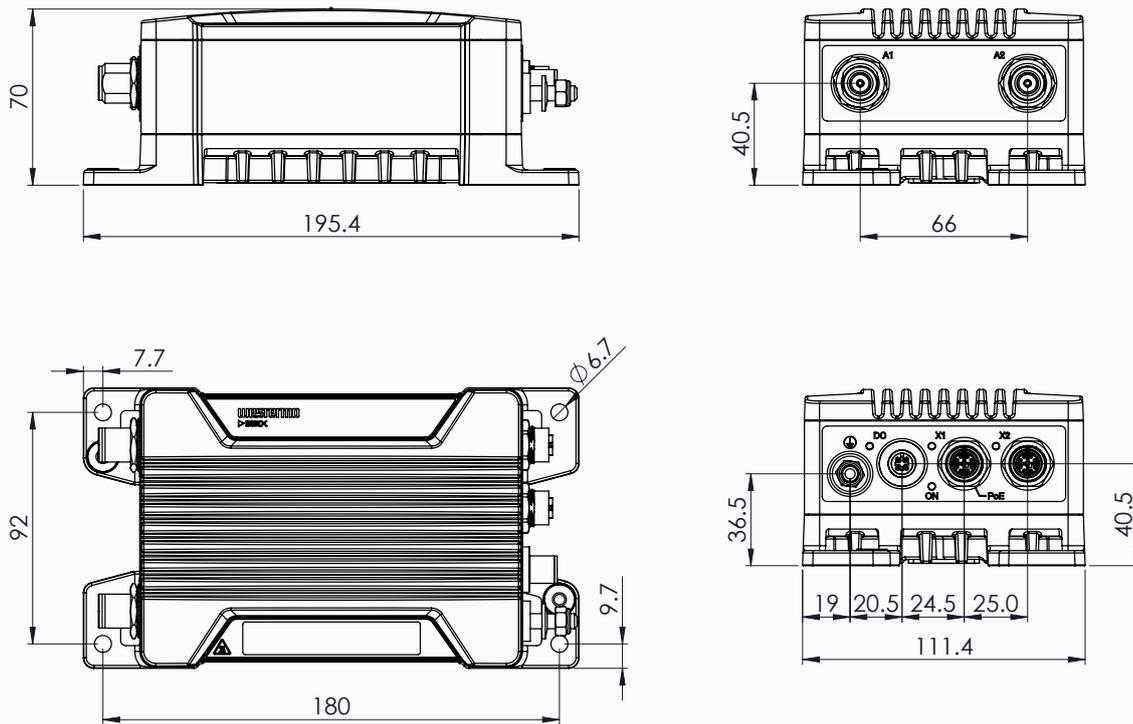
An overall optimised design results in a compact form factor in combination with very high MTBF for easy integration in space restricted installations and low lifecycle cost.

Thorough type testing at independent labs certifies the compliance to a wide range of standards, including EN 50121-4.

The Ibex-1310 is running Westermo's robust and easy to use Linux based IbexOS operating system with latest cybersecurity features and updates.

Specifications - Ibex-1310 series

Dimensional drawing



Technical data

| | |
|--------------------------------|---|
| Dimensions (W x H x D) | 195 x 70 x 111 mm (7.68 x 2.76 x 4.37 inches) |
| Housing | Full metal |
| Weight | 1.45 kg without antennas |
| Operating temperature | -40 to +70°C (-40 to +158°F) |
| Ingress protection | IP66 |
| MTBF | 424,000 hours 538,000 hours (PoE product variant only) |
| Rated voltage ^a | 12 to 48 VDC or PoE IEEE 802.3 Class 4 |
| Operating voltage ^a | 9.6 to 60 VDC |
| Rated power | 14 W |
| PoE | PoE Class 4 (IEEE 802.3at type 1 and 2 PD) |

^aDC power supply not included in "PoE only" product variants

Interface

| | |
|------------|---|
| RF antenna | 2 x N-type antenna connector for Wi-Fi 6 2.4 GHz and 5 GHz (combiner) |
| Ethernet | 2 x 10/100/1000/2.5G Base-T with M12 X-coded connectors |

| Wireless | |
|---|--|
| Operating modes | Access Point, Client, Bridge |
| Interfaces | Dual-Band Concurrent 2x2 MU-MIMO (total 4 Spatial Streams) |
| Standards supported | IEEE 802.11b, 802.11g, 802.11a, 802.11n, 802.11ac, 802.11ax |
| Frequency range | 2.400 to 2.4835 GHz (2x2 MU-MIMO) 5.150 to 5.350 GHz, 5.470 to 5.725 GHz, 5.725 to 5.875 GHz (2x2 MU-MIMO) |
| Data rates supported | 2.4 GHz: Up to 802.11ax 40 MHz 2SS BW HE11: 573 MBit/s 5 GHz: Up to 802.11ax 80 MHz 2SS BW HE11: 1201 MBit/s |
| RF transmit power 2.4 GHz ^a | Max. conducted transmit power for all data rates: +25 dBm, per port: +22 dBm |
| RF transmit power 5 GHz ^a | Max. conducted transmit power: 25 dBm, per port: 22 dBm |
| Receiver sensitivity per radio ^b | 20 MHz: -94 dBm (HE0), -68 dBm (HE9), -63 dBm (HE11) 40 MHz: -91 dBm (HE0), -65 dBm (HE9), -61 dBm (HE11) 80 MHz: -88 dBm (HE0), -63 dBm (HE9), -58 dBm (HE11) |

^aDepending on the regulatory limitations and selected antennas

^bTypical, all antenna chains connected, temperature 25° C

| Features | |
|-------------------|--|
| Security | Wi-Fi Security Open, WPA2-Personal (CCMP), WPA2-Enterprise, WPA3-Personal (SAE/OWE), WPA3-Enterprise (Suite-B), WPA2/3-Hybrid-Mode (SAE+PSK), 802.11w, 802.1X, Security Log (persistent) |
| Networking | Fixed fallback IP, IP Aliases, MAC override, 802.1Q VLAN support, Interface Port Protection, Routing Static/Policy/Multicast, Multi WAN support, CARP, DHCP Server/Client/Relay, DNS Server/Client, NTP Server/Client, RSTP, Firewall Filter/Mangle (L2 stateless/L3 stateful), IP Masquerading (NAT/NAPT), Port Forwarding (DNAT/SNAT), Stateless NAT (1-1 NAT) |
| Wireless | Up to 8 SSID assignments per radio, up to 512 client connections per radio, SSID Hide, AP Client Isolation, 802.11e (WME/WMM), 802.11r, 4addr, 802.1p QoS (L2/L3 mapping), Access Control (ACL), Automated Channel Selection (ACS), static/dynamic VLAN per SSID, BSSID override |
| VPN | SSL Server/Client, IPsec, OpenVPN Client, Wireguard, GRE/GRETAP, VXLAN |
| Discovery | LLDP, SSDP, mDNS |
| Client management | ATF (Air Time Fairness), Client Steering and Load Balancing between 2.4 GHz and 5 GHz, Multi-AP Client Steering, 802.11k, 802.11v |
| Monitoring | Built-in monitoring sensors and diagnostics, SNMP notifications (TRAP/INFO), Syslog, CLI, WebAPI |
| Management | SNMP v2c/v3 with USM authentication and encryption support, HTTP/HTTPS web interface and WebAPI with user authentication (local or LDAP), CLI (SSH and Telnet), Certificate Management (SCEP), Dual Firmware Primary/Backup |
| SNMP MIB Support | MIB-2, RFC1213, HOST-RESOURCES, BRIDGE, ETHERLIKE, IF-MIB, LLDP-MIB, UCD-SNMP-MIB, WESTERMO-SW6-MIB, WESTERMO-SW6-BRIDGE-MIB, WESTERMO-SW6-FIREWALL-MIB, WESTERMO-SW6-ICL-MIB, WESTERMO-SW6-GNSS-MIB, WESTERMO-SW6-NWM-MIB, WESTERMO-SW6-PWN-MIB |

| Approvals and Standards | |
|----------------------------------|---|
| Climate | <ul style="list-style-type: none"> EN 60068-2 [-1, -2, -30], Environmental testing of electronic equipment |
| EMC | <ul style="list-style-type: none"> EN 50121-4, Railway applications - Electromagnetic compatibility. Part 4: Emission and immunity of the signalling and telecommunications apparatus EN/IEC 61000-6-2, Immunity industrial environments EN/IEC 61000-6-4, Emission industrial environments ETSI EN 301 489-1, Electromagnetic compatibility (EMC) and Radio spectrum Matters (ERM) for radio equipment and services - Part 1: Common technical requirements ETSI EN 301 489-17, Electromagnetic compatibility (EMC) and Radio spectrum Matters (ERM) for radio equipment - Part 17: Specific conditions for Broadband Data Transmission Systems |
| Mechanical (Shock and vibration) | <ul style="list-style-type: none"> EN 50125-3, Outside the track |
| Radio communication | <ul style="list-style-type: none"> ETSI EN 300 328, Wideband transmission systems; Data transmission equipment operating in the 2.4 GHz ISM band and using wide band modulation techniques ETSI EN 301 893, 5 GHz RLAN ETSI EN 300 440, 5.8 GHz, Short Range Devices IEEE802.11, Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications FCC-47-15, Radio frequency devices |
| Safety | <ul style="list-style-type: none"> EN/IEC 62368-1, Safety Requirements for audio/video, information and communication technology equipment |

| Ordering information | | |
|----------------------|---------------------------|---|
| Art. no. | Model | Description |
| 3628-13101 | Ibex-1310-T2G2.5 EU | Industrial Dual Wi-Fi 6 Access Point, 12...48 VDC, PoE PD |
| 3628-13102 | Ibex-1310-T2G2.5 NA | Industrial Dual Wi-Fi 6 Access Point, 12...48 VDC, PoE PD |
| 3628-13111 | Ibex-1310-T2G2.5-PoE EU | Industrial Dual Wi-Fi 6 Access Point, PoE PD |
| 3628-13112 | Ibex-1310-T2G2.5-PoE NA | Industrial Dual Wi-Fi 6 Access Point, PoE PD |
| 3623-0799 | Factory Reset Plug X-code | Accessory |