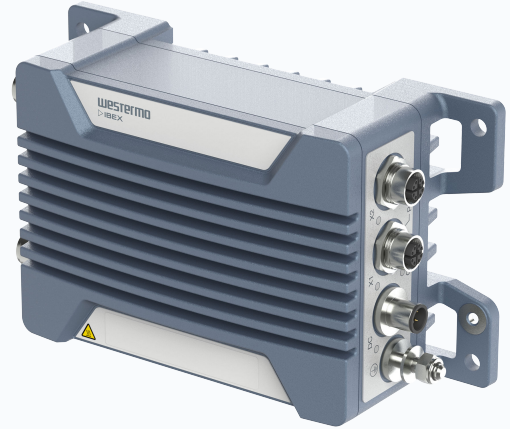


Industrial Outdoor Wi-Fi 6 Access Point

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
 - Flexible and easy set-up
- **Designed for heavy industry usage**
 - IP66 and -40 to +70°C
 - Compact design with M12 interfaces
 - MACsec and Secure Boot
 - 9.6 to 60 VDC isolated power supply
- **Latest generation 802.11 design**
 - IEEE802.11ax for maximum efficiency
 - Client management features
 - 4 MIMO spatial streams



EN 50121-4
Railway Trackside

EN 61000-6-1
Residential Immunity

EN 61000-6-2
Industrial Immunity

EN 61000-6-3
Residential Emission

EN 61000-6-4
Industrial Emission

The Ibex-1310 is a concurrent dual-band 802.11ax WLAN 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.

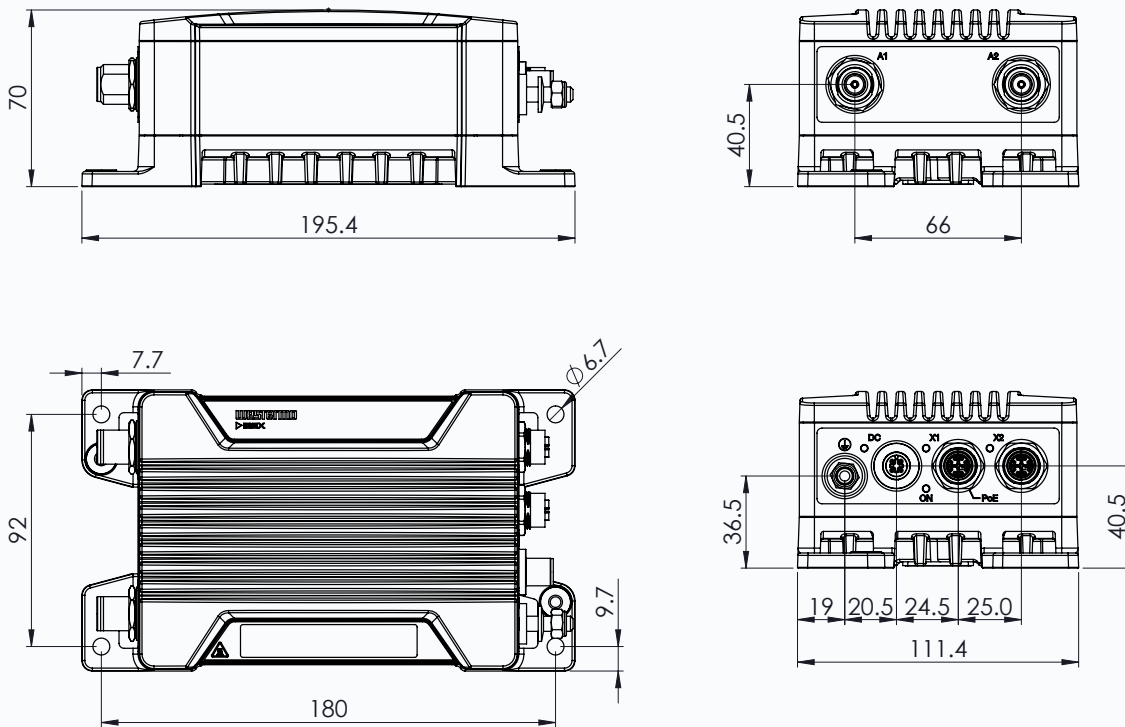
An overall optimised design results in a compact form factor in combination with very high MTBF for easy integration in space restricted installations and low lifecycle cost.

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

Ibex-1310 is running Westermo's robust and easy to use SW6 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	1.2 kg without antennas
Operating temperature	-40 to +70°C (-40 to +158°F)
Ingress protection	IP66
MTBF	>400,000 hours
Rated voltage	12 to 48 VDC
Operating voltage	9.6 to 60 VDC
PoE	IEEE802.3at type 1 and 2 PD

Interface

RF antenna	2 x N-type connector for Wi-Fi 6
Ethernet	2 x 10/100/1000/2.5G Base-T, 2 x M12 X-coded connectors

Wireless

Operating modes	Access Point, Client, Bridge
Interfaces	Dual Band Dual Concurrent 2x2 MU-MIMO (total 4 Spatial Streams)
Standards supported	IEEE802.11g, 802.11a, 802.11n, 802.11ac, 802.11ax
Frequency range	2.400 to 2.4835 GHz 5.150 to 5.350 GHz, 5.470 to 5.725 GHz, 5.725 to 5.875 GHz
Data rates supported	Up to 802.11ax 80 MHz 2SS BW HE11: 1201 Mbit/s in each band
RF transmit power 2.4 GHz ^a	Max. conducted transmit power per port: 22 dBm
RF transmit power 5 GHz ^a	Max. conducted transmit power per port: 22 dBm
Receiver sensitivity per radio	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

Features	
Security	WPA2-Personal (CCMP), WPA2-Enterprise, WPA3-Personal (SAE/OWE), WPA3-Enterprise (Suite-B), 802.11w, 802.1X
Ethernet routing/networking and VPN	Fixed fallback IP, IP aliases, MAC address control lists, Port forwarding, Routing, Multicast Routing, DHCP Server/Client, NAT, VLAN support, NTP client, SNMP v2c and v3 with USM authentication and encryption support, SNMP Traps, RSTP, Firewall, IP Masquerading (NAT/NAPT), Port Forwarding, Stateless NAT (1-1 NAT), SSL VPN (Client and Server), Certificate Authentication, Pre-shared Key (PSK) Point-to-Point Mode, Layer-2 and Layer-3 VPN, Layer-2 VPN bridging, Address pool and address per CN, TLS Authentication), Generic Routing Encapsulation (GRE)
Client management	ATF (Air Time Fairness), load balancing between 2.4 GHz and 5 GHz, Multi-AP Steering
Monitoring features	Built-in monitoring sensors and diagnostics
Device management	SNMP, HTTP/HTTPS with user authentication, CLI (SSH and Telnet)
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 61000-6-1, Immunity residential environments EN/IEC 61000-6-2, Immunity industrial environments EN/IEC 61000-6-3, Emission residential 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 ECE E-Mark, Road Vehicles, E13 10R-06 15771
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 ISM band and using wide band modulation techniques ETSI EN 301 893, 5 GHz RLAN 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.	Description
3628-13101	Ibex-1310-T2G2.5 EU
3628-13102	Ibex-1310-T2G2.5 NA