Trackside WLAN Access Point

RT-370

- Infrastructure WLAN access point
  - 3x3 MIMO
  - 2.4 GHz and 5 GHz
  - Separate RF environment monitoring antenna
  - Fiber port for long-distance connections
  - Flexible and easy set-up
- Designed and built for operational environments
  - Extended operating temperature range with guaranteed performance across the range
  - High-level isolation enables direct mains connectivity
  - EN 50121-3-2 approval for wayside deployment
- High-end radio design for mission-critical capability
  - High power and high sensitivity for extended range and reliable wireless coverage
  - Interruption-free use of 5 GHz radar bands through advanced DFS (radar detection) features
  - Disturbance free operation close to other radio devices

CE EN 45545-2 Fire Protection EN 50121-4 Railway Trackside NFPA 130 Fire Protection

The Westermo RT-370 is a Wireless LAN Infrastructure Access for industrial or wayside network infrastructure. It ensures reliable, continuous high-speed connection to industrial wireless clients.

The RT-370 is designed to withstand the tough environment in for instance wayside applications, exposing the switch to constant vibration, extreme temperatures, humidity and a demanding electromagnetic environment.

The radio module is calibrated to ensure high RF sensitivity (even at high data rates/modulations), stable RF links, optimised DFS handling, etc.

The RT-370 provides an additional monitoring interface for out of band radar detection and monitoring. With this feature, surrounding WLAN devices and other interferences along the whole frequency band can be monitored, without adversely affecting the communication performance.

A GORE-TEX® membrane prevents internal condensation. High-level isolation between all interfaces enables direct connectivity to mains and protects against overvoltage and spikes/surges. IP66 protection prevents ingress of water and dust even at the quick connect QMA connectors.

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

Thorough type testing at independent labs certifies the compliance to a wide range of standards, not least EN 50121-3-2, FCC and EN 300 440 (the latter opening the possibility to use the 5.8 GHz band in the EU region).

Meeting the requirements of the railway signaling market, the RT-370 is very well suited for deployment in any other application with severe operating conditions and tough environments, for instance in the mining and shipping industry.

Ordering Information	
Art.no	**Description**
3623-077001	RT-370 EU, Trackside WLAN Access Point
3623-077002	RT-370 NA, Trackside WLAN Access Point
3623-0799	Factory Reset Plug (Accessory)

Specifications RT-370

Functionality	High-speed backbone solution for pub. transport, outdoor and industrial applications
Operating Modes	Access Point, Client
Operating temp. range	-40 to +70 °C
Power Feed	100-240 VAC, 0.2 A, 50-60 Hz, Connector: Binder 693 male socket 3+PE or IEEE 802.3at type 1 PD
Size and weight	App. 80 x 110 x 210 mm (H x W x L) and approx. 1,5 kg, without antennas
Environmental Protection	IP66
MTBF	200,000 hours (IEC 62380)
Wireless Standards Supported	IEEE 802.11b, 802.11g, 802.11a and 802.11n
Frequency Range	2.400 to 2.4835 GHz, 5.150 to 5.350 GHz, 5.470 to 5.725 GHz, 5.725 to 5.850 GHz
Occupied Channel Bandwith	According to the IEEE 802.11
Data Rates Supported	802.11b: 1 Mbit/s, 2, 5.5 & 11 Mbit/s 802.11g & 802.11a: 6 Mbit/s, 9, 12, 18, 24, 36, 48 & 54 Mbit/s 802.11n 20 MHz BW, Long GI/Short GI: from MCS0 6.5/7.2 Mbps to MCS23 195/216.7 Mbps 802.11n 40 MHz BW, Long GI/Short GI: from MCS0 13.5/15 Mbps to MCS23 405/450 Mbps
RF transmit power 2400MHz - 2483.5MHz*	Max. conducted transmit power, 802.11b/g/n: 1 port: +22 dBm for all data rate, 2 ports: +25 dBm for all data rates 3 ports: +27 dBm for all data rates
RF transmit power 5150MHz – 5350MHz*	Max. conducted transmit power, 802.11a/n: 1 port: BPSK...16QAM: +22 dBm, 64QAM: 20 dBm 2 ports: BPSK...16QAM: +25 dBm, 64QAM: 23 dBm 3 ports: BPSK...16QAM: +27 dBm, 64QAM: 25 dBm
RF transmit power 5470MHz – 5850MHz*	Max. conducted transmit power, 802.11a/n: 1 port: +22 dBm for all data rates 2 ports: +25 dBm for all data rates 3 ports: +27 dBm for all data rates
RF Antenna interfaces	3 x QMA compatible connectors for communication,1 x QMA compatible connector for monitoring
Receiver Sensitivity (typical)	802.11g: -95 dBm (6 Mbit/s), -85 (36 Mbit/), -80 dBm (54 Mbit/s) 802.11a: -95 dBm (6 Mbit/s), -85 (36 Mbit/), -80 dBm (54 Mbit/s) 802.11ng HT20: -95 dBm (MCS0), -76 dBm (MCS7), -73 dBm (MCS15), -70 (MCS23) 802.11na HT20: -95 dBm (MCS0), -76 dBm (MCS7), -73 dBm (MCS15), -70 (MCS23) 802.11ng HT40: -92 dBm (MCS0), -73 dBm (MCS7), -70 dBm (MCS15), -67 (MCS23) 802.11na HT40: -92 dBm (MCS0), -73 dBm (MCS7), -70 dBm (MCS15), -67 (MCS23)
MIMO features supported	Space Time Block Coding (STBC), RX Low Density Parity Check (LDPC), Maximum Likelihood Demodulation (MLD), Maximum Ratio Combining (MRC)
Security	IEEE 802.11i WPA2 (AES/TKIP), 802.1X, 802.11w
Ethernet Interface	1 x 10/100/1000Base-T with M12 connector, 1 x 1000Base-LX with ODC-2 connector
Ethernet Routing/Networking	Fixed fallback IP, IP aliases, MAC address control lists, Port forwarding, Routing, Multicast Routing, DHCP Server/Client, NAT, VLAN support, Multi BSSID, NTP client, SNMP v2c and v3 with USM authentication and encryption support, SNMP Traps, RSTP
Monitoring Features	Build in monitoring sensors and diagnostics, Advanced interference and radar monitoring features with dedicated monitoring interface, Wireless Manager feature
Device Management	SNMP, HTTP/HTTPS with user authentication, CLI (SSH and Telnet)
Standards supported	CE, FCC 47 CFR Part 15, EN 301 893, EN 300 328, EN 301 489-1/-17, EN 60950, EN 50121-3-2, EN 50121-4, EN 50125-3, EN 45545-2, NFPA 130

* Note: Depending on the regulatory limitations and selected antennas