

RailTrack series

Rugged 802.11ac WiFi access point & backbone repeater for trackside networks



C-KEY READY



Top «C-KEY» for quick configuration, save & restore

- Triple radio 802.11a/b/g/n/ac (MIMO 3T3R), up to 3 x 1.3 Gbps (radio bit rate)
- MESH, WMM QoS, multiple SSID and centralized RADIUS security supported
- Auto-sensing dual Gigabit 10/100/1000 Base TX auto MDI/MDIX network interface
- 2 SFP slots: 1000 base X fiber optic or 10/100/1000 copper
- +110 VAC to +230 VAC
- Rugged aluminum enclosure, IP66 seal rating



Introduction

RailTrack is a ruggedized WiFi access point specially designed for railway and certified for trackside and tunnel infrastructures.

It can be connected to the ground network through either Gbps fiber optic or copper connections.

Thanks to three independent 802.11ac high-speed radio cards (3 streams) approaching 900 Mbps (UDP) each, RailTrack access point allows the construction of high performance architectures such as "wireless backbone" to overcome Ethernet cables along tracksides and tunnels.

Featuring an IP66 housing and rugged M12 connectors, RailTrack is ideal for wall mounting in a tunnel or mast mounting outdoor. Its all-in-one compact footprint integrates 3 radios, a 4-port Ethernet switch with optional Ethernet bypass (daisy chain topologies) and an AC power supply.

RailTrack (trackside AP unit) combined to RailBox (on-board WiFi unit) is the comprehensive connected architecture for "train-to-trackside communication in motion" by ACKSYS.

This ACKSYS solution allows reliable and very high-speed broadband train-to-trackside communications, particularly suited to Internet on board applications, real-time video surveillance and CBTC.

Technical characteristics overview

Ethernet network	<ul style="list-style-type: none"> › 2-port Gigabit Ethernet 10/100/1000 auto-sensing, waterproof 8-point M12 X-coded connectors (CAT-6A), auto MDI/MDIX cross-over, optional Ethernet bypass that redirects the network traffic in case of device or power supply failure (for daisy chain topologies), 1-port PoE+ PSE optional (IEEE 802.3at Type 2 Class 4) › 2 SFP slots IP67 OSIS by Radiall™ : 1000 base X fiber optic or 10/100/1000 copper
WiFi network	3 radios IEEE 802.11a/b/g/n or IEEE 802.11a/b/g/n/ac, MIMO 3T3R, 2.4 / 5 GHz
WiFi radio data rate	802.11a: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps 802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps 802.11n: MCS0-7, 3 streams (6.5 to 450 Mbps) 802.11ac: MCS0-9, 3 streams (6.5 Mbps to 1.3 Gbps)
Operating frequencies	ISM : 2.4-2.483 GHz (up to 14 channels) UNII : 5.15-5.25 GHz (up 4 channels) UNII-2 : 5.25-5.35 GHz (up to 4 channels) UNII-2 ext : 5.470-5.725 GHz (up to 11 channels) UNII-3 : 5.725-5.825 GHz (up to 4 channels) Supports DFS and TPC
Output power	Up to 24 dBm (aggregate), depending on radio card model
Radio connectors	9 N-type connectors (no antenna provided)
Security	IEEE 802.1x (centralized RADIUS authenticator & supplicant), WPA2-PSK, WPA-PSK, legacy WEP supported
WiFi Modes	Access point, repeater, MESH point (IEEE 802.11s), client router, WMM QoS, multicast, VPN, dynamic routing and firewall modes fully supported
Administration	Built-in WEB interface, the setup of the device is achieved using any web browser, SNMP agent, administration software for Windows/Linux (ACKSYS NDM), save / restore configuration key (C-Key)
LEDs Signaling	Radio : activity and status Ethernet (copper) : link 10/100/1000 and activity Ethernet (fiber) : link and activity PoE+ PSE : on-off Power : on-off Diagnostic C-Key
Alarms & Inputs	One solid state relay output warning (with configurable action), 1 Form A, 60VDC 0.1A max & one input for external device control 24VDC max (3-pin Waterproof M8 connector)
Power supply	+110 VAC to +230 VAC (M12 3 poles S-coding connector), 50/60Hz, M6 ground screw
Consumption	30 W max (PoE powered device consumption excluded)
Dimensions & weight	Rugged aluminum enclosure, L: 305 x l: 200 x h: 75 mm with fixing points, 3.5 Kg
Standards	Safety : EN60950-1 Radio : EN300-328 1.8.1 (2.4 GHz), EN301-893 1.7.1 (5 GHz, DFS) EMC : EN50121-4, EN301-489-1, EN301-489-17
Environment	IP66 seal rating Operating temperature: -25°C to +70°C (HR 0-99%) or extended -40°C to +85°C, storage: -40°C to +85°C GORE ® protective vent (dehumidifying membrane)

Ordering references

RailTrack/RRRXB	Triple WiFi access point, backbone repeater & MESH point (IEEE 802.11a/b/g/n/ac) for trackside networks, +110 VAC to +230 VAC DETAILED REFERENCES COMING SOON
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