

Introduction

The APR2044ax is Teldat's new WiFi Access Point for railway applications. It features two state of the art WiFi 6 modules that can provide connectivity to a high number of passengers. It's especially designed to meet the more demanding railway regulations (such as EN 50155). The APR2044ax seamless integrates with HotSpot and WebFilter applications, creating a full solution for on-train Internet connectivity. With two 2.5GbE ports It has the ability to be mounted on a daisy chain configuration which reduces the need of additional switches.



Product Highlights

- ▶ Wi-Fi 6 Multi-User-MIMO 4x4 for up- and down link
- ▶ 2,4 Gbit/s @ 5GHz and 1,1 Gbit/s* @ 2,4 GHz
- ▶ 802.11ax technology for 2,4 and 5 GHz band
- ▶ Compliant with Railway Regulations
- ▶ Integrated Bluetooth for IoT applications
- ▶ 8 antennas for optimized coverage and performance

Product Description

Competitive Advantage

State of Art Wi-Fi Technology	Dual-Radio 4x4 MU-MIMO 802.11ax Wi-Fi 6 with high level security WPA3
Access Point for railway environments	Offers professional connectivity in railway environments on different bands
Ruggedized HW and Fanless architecture	Designed to withstand vibrations and extreme temp (-25 to 70°C). Certified according to railway standards (EN 50155, EN 50121-3-2, EN 45545-2, EN 301 908-1)
Simple, efficient administration	Web configuration (http/https), CAPWAP support from WLAN Controller in Teldat router, Teldat's Cloud base management

HARDWARE TECHNICAL FEATURES

Interfaces and connectors

2 x 100/1000/2500 Mbps Ethernet twisted pair, autosensing, auto MDI/MDI-X
1 x Radio module IEEE 802.11b/g/n/ax MIMO 4x4
1 x Radio module IEEE 802.11ax/ac/n/a MU-MIMO 4x4

Environmental specifications and consumption

Temperature operating: 0°C to 45°C; storage: -25°C to 70°C
Relative humidity: up to 95%
Max Consumption: T.B.D

Dimensions and casting

Approx. 216 mm x 216 mm x 51 mm (width x depth x height)
Status, Activity for WLAN1, WLAN2 and Ethernet, LEDs defeatable

Internal Power Supply

24-110 VDC M12 Connector / PoE

Antennas

2 x 2 female QMA external antennas connectors by radio module WLAN
1 female QMA antenna connector by Bluetooth

SOFTWARE TECHNICAL FEATURES

Wi-Fi interface

Airtime Fairness, Client Band Select, Client Management, Data rate trimming
Client Management 802.11k/v, Low SNR threshold management
Seamless roaming with IAPP, Fast BSS Transition 802.11r

Management/administration

Graphical user interface
Managed by a local WLAN Controller, works as WTP
Supported Cloud Management Systems

IEEE802.11i Authentication and encryption

802.1x/EAP-MD5, 802.1x/EAP-TLS, 802.1x/EAP-TTLS,
802.1x/EAP-PEAP, key management

Power optimization

TWT

WLAN Security Modes

WPA3-SAE; WPA2/3-PSK; WPA2-PSK; WPA1/2-PSK; WPA-PSK; WPA3-Enterprise
WPA2/3-Enterprise; WPA2-Enterprise; WPA1/2-Enterprise; WPAEnterprise
Open, OWE; OWE-Transition

Energy Management

MIMO 1x1 shift down
802.3az support
The LEDs has three operation mode: Status, Flashing, Off

Detection mechanisms

MAC address filter for WLAN clients (white list)
Rogue AP, Neighbor AP

VLANs

Network segments on layer2 is possible
For each SSID one VLAN ID is available
Static VLAN configuration according IEEE 802.1q

ADDITIONAL TECHNICAL FEATURES

Certifications

Directive 2014/53/EU, 2011/65/EU, Regulation (EC)
EN 50155:2017; EN 300 328; EN 301489-1; EN 301489-17; EN 301893;
EN 62368-1: 2014; EN 50121-3-2; EN45545-2:2013; EN IEC 63000; EN
62311:2008

Open Source information at www.teldat.com

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