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wireless & embedded | for more

WLAN Node, DT50-ODRAP

Neratec DT50 OD RAP is a wireless communication solution for backbone in harsh environment applications like public transportation or industrial data/video communication. It supports the IEEE 802.11 networking standards, thus ensuring high data rates and reliable communications.

The DT50 OD RAP provides the infrastructure side for a high-speed wireless communication link. It supports a wide variety of applications including for example wireless data transfer, voice communication and wireless video. Once the initial configuration is done, it can be remotely managed using a standard Web browser or SNMP management tools.

Technology

- Based on IEEE 802.11n technology, adapted for special requirements in infrastructure side installations
- In-house developed software and hardware optimized for special requirements in transportation and industrial applications enabling unique Long Term Support, Availability and Obsolescence management
- 2.4 GHz and 5 GHz operation
- Advanced RF front end enables optimized operation nearby other WLAN/3G/4G networks
- Excellent performance and flexible installations in harsh industrial and mobile environments

Key Features

- Integrated worldwide power supply and Optical Ethernet
- Enhanced monitoring features for optimized link budget
- High-Speed communications, Data rates up to 300Mbit/s
- Better link span based on optimized transmitter and receiver performance
- Supports remote updates for device settings and firmware downloads
- Outdoor-proof solution
- Swiss Made technology

ALSTOM Transport / TOMA – V. Baillais ©

High-speed backbone solution for public transport

WLAN Node, DT50-ODRAP

Functionality	High-speed backbone solution for public transport, outdoor and industrial applications
Operating Modes	Access Point
Operating Temperature Range	-40...+70 °C
Power Feed	100...240VAC, 0.2A, 50...60Hz, Connector Type: Binder 693 male socket 3+PE
Physical Dimensions and weight	App. 80 x 110 x 210 mm (H x W x L) and approx. 1,5 kg, without antennas
Environmental Protection	IP 66
Wireless Standards Supported	IEEE 802.11b, 802.11g, 802.11a and 802.11n
Frequency Range	2.400...2.4835 GHz 5.150...5.350 GHz, 5.470...5.725 GHz, 5.725...5.850 GHz
Occupied Channel Bandwith	According to the IEEE 802.11
Data Rates Supported	802.11b: 1Mbit/s, 2, 5.5 & 11Mbit/s 802.11g & 802.11a: 6Mbit/s, 9, 12, 18, 24, 36, 48 & 54 Mbit/s 802.11n 20MHz BW: 1 Nss: 65(72.2)Mbps maximal, 2 Nss: 130(144.44)Mbps maximal 802.11n 40MHz BW: 1 Nss: 135(150)Mbps maximal, 2 Nss: 270(300)Mbps maximal
RF Transmit Power 2400MHz - 2483.5MHz	Max. conducted transmit power per antenna port: 802.11b: +24dBm (1..11Mbps) 802.11g: +24dBm (6..36Mbps), +23dBm (48Mbps), +22dBm (54Mbps) 802.11ng HT20: +24dBm (MCS0..4,8..12), +23dBm (MCS5,13), +22dBm (MCS6,7,14,15) Note: Depending on regulatory limitations
RF Transmit Power 5150MHz – 5725MHz	Max. conducted transmit power per antenna port: 802.11a: +23dBm (6..36Mbps), +22dBm (48Mbps), +21dBm (54Mbps) 802.11na HT20: +23dBm (MCS0..4,8..12), +22dBm (MCS5,13), +21dBm (MCS6,14), +20dBm (MCS7,15) Note: Depending on regulatory limitations
RF Transmit Power 5725MHz – 5850MHz	Max. conducted transmit power per antenna port: 802.11a: +24dBm (6..36Mbps), +24dBm (48Mbps), +23dBm (54Mbps) 802.11na HT20: +24dBm (MCS0..4,8..12), +24dBm (MCS5,13), +23dBm (MCS6,14), +22dBm (MCS7,15) Note: Depending on regulatory limitations
RF Antenna interfaces	2 x N-type connectors for communication,1 x N-type connector for monitoring
Receiver Sensitivity (typical)	802.11g: -95 dBm (6 Mbit/s), -85 (36Mbit/), -80 dBm (54 Mbit/s) 802.11a: -95 dBm (6 Mbit/s), -85 (36Mbit/), -80 dBm (54 Mbit/s) 802.11ng HT20: -95 dBm (MCS0), -76 dBm (MCS7), -73 dBm (MCS15) 802.11na HT20: -95 dBm (MCS0), -76 dBm (MCS7), -73 dBm (MCS15) 802.11ng HT40: -92 dBm (MCS0), -73 dBm (MCS7), -70 dBm (MCS15) 802.11na HT40: -92 dBm (MCS0), -73 dBm (MCS7), -70 dBm (MCS15)
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), EAP-(T)TLS, RADIUS Client, Config. file encryption
Ethernet Interface	1 x 10/100/1000Base-T with M12 connector, 1 x 100Base-Fx with ODC connector
Ethernet Routing / Networking	Fixed fallback IP, IP aliases, MAC address control lists, Port forwarding, NAT, Virtual Host, Filtering options, Routing, Multicast Routing, DHCP Server/Client, VLAN Support, Multi BSSID, Roaming, NTP client, SNMP v1, v2c and v3 with USM authentication and encryption support, SNMP Traps
Monitoring Features	Build in monitoring sensors and diagnostics
Device Management	SNMP, Limited HTTP/HTTPS with user authentication
Standards supported	CE, EN301 893 v1.7.1, EN300 328, EN301 489-1/-17, EN60950, EN50121-3-2, EN50121-4, EN50125-3