

## WLAN Node, DT50R

Neratec DT50R is a Wireless Communication Solution for onboard and mobile installations 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 DT50R supports a wide variety of applications including for example control and maintenance, wireless 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
- In-house developed software and hardware optimized for special requirements in transportation and industrial
- 2.4 GHz and 5 GHz operation
- Incorporates the latest MIMO features
- Excellent performance and flexible installations in harsh industrial and mobile environments

### Key Features

- Configurable as Access Point or Client
- High-Speed communications, Data rates up to 300Mbit/s
- Better link span based on optimized transmitter and receiver performance
- Fast association for optimal link stability in multi access point installations
- Supports remote updates for device settings and firmware downloads
- Outdoor-proof solution
- Swiss Made technology
- EN50155 compliant



Robust and reliable  
802.11n solution for onboard

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Functionality	802.11n solution for Public Transportation, Outdoor and Industrial applications
Operating Modes	Access Point and Client
Operating Temperature Range	-40...+70 °C
Power Feed	24 VDC Isolated, 0.5A max
Physical Dimensions and weight	App. 55 x 110 x 180 mm (H x W x L) and approx. 1,1 kg, without antennas
Environmental Protection	IP 65
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 Bandwidth	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 2.4Ghz (conducted)	Settable up to +20 dBm per antenna port, depending on the data rate and regulatory limitations
RF Transmit Power 5Ghz (conducted)	Settable up to +23 dBm per antenna port, depending on the data rate and regulatory limitations
RF Antenna interfaces	2 x N-type Antenna connectors, 2x2 MIMO
Receiver Sensitivity (typical)	802.11g: -93 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: -93 dBm (MCS0), -77 dBm (MCS7), -73 dBm (MCS15) 802.11na HT20: -95 dBm (MCS0), -77 dBm (MCS7), -74 dBm (MCS15) 802.11ng HT40: -90 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 (EAS), EAP-(T)TLS, RADIUS Client support
Ethernet Interface	2 x 10/100Base-T, 2 x M12 connectors Optional: 1 x 802.3ab PoE PD at one of the Ethernet interfaces
Ethernet Routing / Networking	Fixed fallback IP, IP aliases, MAC address control lists, Port forwarding, NAT, Virtual Host, VPN, Filtering options, Routing, Multicast Routing, DHCP Server/Client, NAT Router, VLAN Support, Multi BSSID, Roaming, SSH server, NTP client, SNMP v1, v2c and v3 with USM authentication and encryption support, SNMP Traps
Robustness / Maintenance features	Robust Flash operations, User defined backup, Extended Recovery features
Monitoring Features	Build in monitoring sensors and diagnostics, Nearby WLAN Networks monitoring, Interference Analyzing and Monitoring for installations
Device Management	HTTP/HTTPS with user authentication, SNMP
Standards supported	CE, EN301 893 v1.6.1, EN300 328, EN301 489-1/-17, EN60950, EN50121-3-2, EN50121-4, EN50155