JTD-10250-NK2

802.11a/n/ac/ax Outdoor Long-range Wireless Bridge

TDMA+

Intelligent Rate Control

ACK Time-out Adjustment
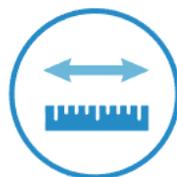
2x2 MiMo

High Throughput

Point to point

Point-to-Multi-Point CPE

Long Distance Coverage

Gigabit Ethernet

Hardware Watchdog

Product Feature

- Supports the 802.11a/n/ac/ax standard
- Recommended transmission distance: 0~25km
- Integrated antenna design
- Built-in VTrans technology, including:

  1) TDMA+: eliminates performance degradation caused by hidden terminals and maximizes wireless transmission efficiency.

  2) Frequency (channel) expansion function: eliminates interference caused by the same frequency and adjacent frequency through more frequency selection.

  3) Bandwidth selection: adjusts the channel width to avoid overlapping parts of the spectrum and reduce the influence of interference from other channels.

  4) AutoAck function: intelligently calculates the ACK value required for long-distance transmission to achieve optimal performance at that distance
- Intelligent QoS wireless multimedia optimization technology, providing high priority transmission levels for voice and video
- Support wireless spectrum scanning, capable of analyzing the spectrogram of the designated spectrum and monitoring real-time energy information in the environment, including both WIFI and non-WIFI energy
- Support high-precision wireless link test function, with a test error of less than or equal to 3%, which is comparable to professional testers.
- Support antenna calibration tool that allows for real-time alignment of the antenna
- Supports firmware backup mechanism, which prevents the device from ceasing operation in extreme conditions
- Supports web-based management, enhancing the convenience of equipment installation and maintenance
- Supports wireless controller (AC) management, enabling remote centralized configuration and upgrade management.
- Equipped with a digital tube display, which shows the signal strength for easy debugging purposes

*Wireless controller needs to be purchased separately for complete functionality and management.

Specifications

Hardware	Dimensions	Φ617.4mmx321.6mm
	Installation	Pole Mounting；30mm≤Diameter≤70mm
	Protection Level	IP65
	RF Connector Type	2x N Type Female
	Power Supply	Passive PoE 24V
	Max Power Consumption	23W
	Average Power Consumption	20 W
	CPU	IPQ6010
	DDR & Memory	1GB DDR4@2133, 128MB Flash
	Network Interface	2*10/100/1000Mbps
	Indicator Light	1*Power、1*SYS、RSSI display、Ethernet Port Indicator
	Maximum Transmitted Power	26dBm per Chain
	Outer Casing	Aluminum Alloy
	Working Temperature	-40℃~70℃
	Storage Temperature	-40℃~85℃
	Working Humidity	5%~95%RH Non-condensing
	Surge	1、DM：Line -- line(-48V—RTN) 1.5KV (1.2/50us 42 ohm) B criteria 　　　　　line--line(-48V—RTN) 1.5KV (10/700us 15+25ohm) C criteria 2、DM：0.5kV 42ohm 1.2/50us 3、Isolation withstand voltage：6KV 4、DM 250A（4 lines – 4 lines），8/20us，C criteria
	ESD Protection	Contact 6KV, Air 8KV
	Wind Survivability	200km/h
Software	Protocol	802.11a/n/ac/ax
	Frequency	5180~5240MHz、5745~5825MHz（China） Supported frequency range：4920~5960MHz（should depend on the local regulation.) * The above frequencies need specific version support
	Channel Bandwidth	10/20/40/80MHz
	Capacity	Max 5GHz PHY Rate:1201Mbps,TCP Rate:840Mbps; 37.5Mpss@ Ingress,10Mpss egress per port;
	Security	WPA2-PSK, Hide SSID
	Management	Support Web/AC/SNMP
	2.4G WIFI Management	Support
	Other	Secure Boot, LDPC, Digital Pre-distortion, Timed restart, Support VLAN，QoS，Watchdog

RF Specification

TX Power				Sensitivity		
	Data Rate	Avg. TX	Tolerance	Data Rate	Sensitivity	Tolerance
11b/g/n	1 Mbps	20dBm	+/- 2dBm	1 Mbps	-96dBm	+/- 2dBm
	11 Mbps	20dBm	+/- 2dBm	11 Mbps	-89dBm	+/- 2dBm
	6 Mbps	18dBm	+/- 2dBm	6 Mbps	-91dBm	+/- 2dBm
	54 Mbps	16dBm	+/- 2dBm	54 Mbps	-73dBm	+/- 2dBm
	HT20 MCS0(combination)	18dBm	+/- 2dBm	HT20 MCS0	-91dBm	+/- 2dBm
	HT20 MCS7(combination)	15dBm	+/- 2dBm	HT20 MCS7	-69dBm	+/- 2dBm
	HT40 MCS0(combination)	18dBm	+/- 2dBm	HT40 MCS0	-89dBm	+/- 2dBm
	HT40 MCS7(combination)	15dBm	+/- 2dBm	HT40 MCS7	-67dBm	+/- 2dBm
11a/n	6 Mbps	25dBm	+/- 2dBm	6 Mbps	-91dBm	+/- 2dBm
	54 Mbps	23dBm	+/- 2dBm	54 Mbps	-73dBm	+/- 2dBm
	HT20 MCS0(combination)	29dBm	+/- 2dBm	HT20 MCS0	-91dBm	+/- 2dBm
	HT20 MCS7(combination)	25dBm	+/- 2dBm	HT20 MCS7	-70dBm	+/- 2dBm
	HT40 MCS0(combination)	29dBm	+/- 2dBm	HT40 MCS0	-88dBm	+/- 2dBm
	HT40 MCS7(combination)	25dBm	+/- 2dBm	HT40 MCS7	-68dBm	+/- 2dBm
11ac	VHT20 MCS0(combination)	29dBm	+/- 2dBm	VHT20 MCS0	-91dBm	+/- 2dBm
	VHT20 MCS8(combination)	25dBm	+/- 2dBm	VHT20 MCS8	-67dBm	+/- 2dBm
	VHT40 MCS0(combination)	29dBm	+/- 2dBm	VHT40 MCS0	-87dBm	+/- 2dBm
	VHT40 MCS9(combination)	25dBm	+/- 2dBm	VHT40 MCS9	-64dBm	+/- 2dBm
	VHT80 MCS0(combination)	29dBm	+/- 2dBm	VHT80 MCS0	-85dBm	+/- 2dBm
	VHT80 MCS9(combination)	25dBm	+/- 2dBm	VHT80 MCS9	-60dBm	+/- 2dBm

* The combined power in the chart above is the result of tested single power plus 3dB