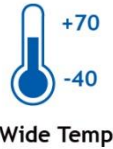*Industrial 802.11a/b/g/n 2.4G/5G 2T2R MIMO Outdoor Wireless AP*

JetWave 2460/2460E

- Radio configurable: 802.11 a/b/g/n 2.4G/5G Band
- 802.11n 2T2R MIMO doubles data rate up to 300Mbps
- 1 Fast Ethernet Port Bridging
- Remote management by Web GUI
- Passive PoE (24V/48V) power input
- Wide Temperature, Heavy Industrial Grade design
- Outdoor IP67 design

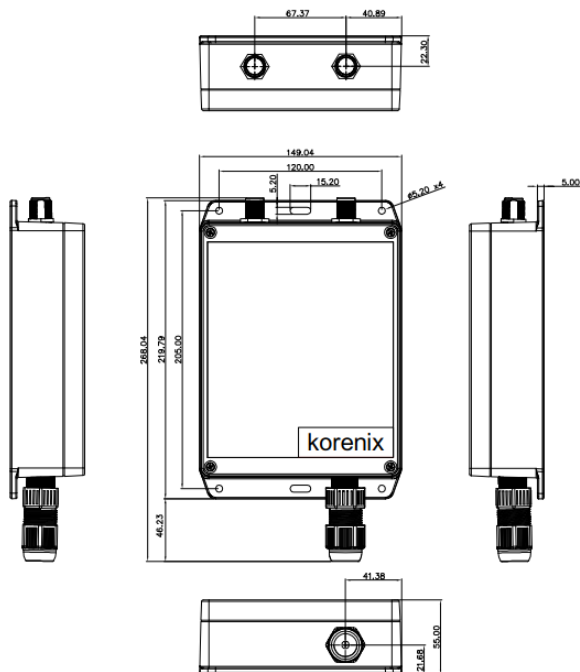**Heavy Industrial** **Super Roaming** **MIMO** **Wide Temp** (+70 / -40)

Overview

The JetWave 2460 is an industrial 802.11a/b/g/n Wireless Client which offers a high performance and reliability wireless solution for 2.4G/5G radio band. With the JetWave 2460 wireless access point, a network designer will easily achieve the integration of wired and wireless networks. With the new generation 802.11n MIMO technology, the radio offers a high data rate of up to 300Mbps, provide flexible wireless backbone deployment options.

The JetWave 2460 can function as an AP/Client, WDS AP/Client, JSM AP/Client, Bridge modes for different point to point or point to multiple point network application.

JetWave 2460 also supports remote management. The industrial grade design supports 24V/48V passive PoE power input, wide operating temperature and heavy industrial grade environment protection.

JetWave2460 ID DIM   R0.0 20191205

Specification

Technology	
Standard	IEEE 802.3 for 10BaseT
	IEEE 802.3u for 100 Base-T(X)
	IEEE 802.11a/b/g/n for Wireless LAN
	IEEE802.11i Wireless security
	IEEE802.1Q for VLAN

Interface	
Ethernet Port	1x 10/100 Base-T(X) RJ-45
Wifi	IEEE802.11a/b/g/n
Power Input	Passive PoE power input(24V/48V)
Antenna Socket	Dual Band Dipole N-type Antenna (JetWave 2460E-E) 2.4GHz 4dBi,5GHz 6dBi
	Dual Band Internal Patch Antenna (JetWave 2460-E) 2.4GHz 5dBi,5GHz 7dBi
CPU	Qualcomm Atheros 550MHz
MIMO	2T2R
RF Modulation	OFDC(BPSK, QPSK, 16-QAM, 64QAM)
RF Output Power	5.8GHz Band:
	22dBm@ 802.11a/n HT20 (MCS0/8, 5180MHz) for FCC
	22dB EIRP for ETSI 301 893 (Band 1)
	2.4GHz Band:
	24dBm at 802.11g/n HT40 (MCS0/8, 2422MHz) for FCC
	20dB EIRP for CE (ETSI 300 328) (Controllable for different country regulations)
RF Sensitivity	802.11a:
	-93dBm@6Mbps,2Rx; -78dBm@54Mbps, 2Rx;
	802.11n HT20:
	-94dBm@MCS0,2Rx; -75dBm@MCS7,2Rx
	802.11n HT40:
	-90dBm@MCS0,2Rx; -73dBm@MCS7,2Rx
	802.11b:
	-97dBm@1Mbps,2Rx; -93dBm@11Mbps, 2Rx;
	802.11g:
	-95dBm@6Mbps,2Rx; -78dBm@54Mbps, 2Rx;
	802.11n HT20:
	-94dBm@MCS0,2Rx; -75dBm@MCS7,2Rx
	802.11n HT40:
	-91dBm@MCS0,2Rx; -73dBm@MCS7,2Rx
Spread Spectrum and Modulation (typical)	• DSSS with DBPSK, DQPSK, CCK
	• OFDM with BPSK, QPSK, 16QAM, 64QAM
	• 802.11b: CCK @ 11/5.5 Mbps, DQPSK @ 2 Mbps, DBPSK @ 1 Mbps
	• 802.11a/g: 64QAM @ 54/48 Mbps, 16QAM @ 36/24 Mbps, QPSK @ 18/12 Mbps, BPSK @ 9/6 Mbps
	• 802.11n: 64QAM @ 300 Mbps to BPSK @ 6.5 Mbps (multiple rates supported)
Operating Frequency	US:
	2.412 to 2.462 GHz (11 channels)
	5.180 to 5.240 GHz (4 channels)
	5.745 to 5.825 GHz (5 channels)
	EU:
	2.412 to 2.472 GHz (13 channels)
	5.180 to 5.240 GHz (4 channels)
	5.470 to 5.725 GHz (11 channels)

Management	
Management	Web GUI, Telnet, IP Setup, Management VLAN ID, Configuration Backup/Restore, Firmware Upgrade, Reload Default, Ping, SMTP
WLAN	Multiple SSID, Radio on/off, SSID Broadcast, Frequency selection, VLAN ID, Advanced settings,
Status	System Information, Bridge Table, ARP Table, DHCP Client List
SNMP Trap	SNMP Trap to specific server
System Log	System events log
Utility/NMS	KorenixView Utility
Reliability	
Alert tool	Built-in RTC
Reboot trigger	Build-in Watchdog
Security	
Security	SSID broadcast enable/disable
Secured Access	HTTPS, SSH, IEEE 802.1X, Radius Server
Firewall	UDP/TCP, Firewall for MAC filtering
Security Encryption	WEP 64/128 bits, WPA-PSK(TKIP), WPA2-PSK/EAP (IEEE 802.1x/RADIUS, TKIP and AES)
Power Requirement	
Power	Passive PoE 24V/48V input
Power Consumption	Standby Mode: 2 W (TBD) Full Load: Max. 5 Watts (TBD) *Suggest to reserve 15% tolerance power in practical installation.
Mechanical	
Enclosure	Plastic housing
External Antenna	Reserve N-type Female connector
Mounting	Wall-Mount
Dimension	220mm(H) x 65 mm(D) x 155 mm(W)
Weight	g with package
Environmental	
Operating Temperature	-40 ~ 70℃
Operating Humidity	5% ~ 95% (operating)
Storage Temperature	-40 ~ 85 ℃
Approvals	
Certification	CE RED EN50121-4
EMS	EN300 328 EN301 893 EN301 489-1 EMS EN301 489-1/-17 EN55032/24 EN61000-6-2/-4 FCC Part 15B Class A
Safety	Safety EN60950
Warranty	3 years
Ordering info	
JetWave 2460-E	Industrial 802.11a/b/g/n 2.4G/5G 2T2R MIMO Outdoor Wireless AP Internal Patch Antenna
JetWave 2460E-E	Industrial 802.11a/b/g/n 2.4G/5G 2T2R MIMO Outdoor Wireless AP External Antenna
Accessory	
PAS-POE-Injector-00	Passive POE injector with cable 10/100Mbps,90~264VAC input, 24VDC output, 0~50℃

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Ordering Information Accessory	
JWA-Arrestor-00	Antenna Arrestor N-type Jack Bulihead to N-type Plug ,DC spark over 230V, Discharge current 10KA , 0–6GHz
JWDA-Mount-Kit-00	Adjustable Cross Direction Mounting Kit for Directional Panel Antenna (Use with JWDA-2.4G-14dBi-SM-00)
Omni Antenna	
JWA-2.4/5G-2dBi-SM-00	Outdoor N-type Male 2.4G wifi Omni Directional Antenna, 5dBi ,white
JWA-2.4G-5dBi-NF-00	Outdoor N-type Male 2.4G wifi Omni Directional Antenna, 5dBi ,white
JWA-2.4G-7dBi-NF-00	Outdoor N-type Male 2.4G wifi Omni Directional Antenna, 7dBi ,white
JWA-2.4G-9dBi-NF-00	Outdoor N-type Male 2.4G wifi Omni Directional Antenna, 9dBi ,white
JWA-5G-7dBi-NF-00	Outdoor N-type Male 5G wifi Omni Directional Antenna, 7dBi ,white
JWA-2.4/5G-4/6dBi-NF-00	N-type Male dual-band wifi Omni Directional Antenna, 2.4GHz 4dBi,5GHz 6dBi ,white
JWA-5G-12dBi-NF-00	Outdoor N-type Male 5G wifi Omni Directional Antenna, 12dBi ,white
Direction Antenna	
JWDA-2.4G-12dBi-NF-00	N-type Female 2.4G WiFi Directional Patch Antenna, 12dBi ,two port ,white
JWDA-5G-14dBi-NF-00	N-type Female 5G WiFi Directional Patch Antenna, 14dBi ,two port ,white
JWDA-2.4G-14dBi-SM-00	Outdoor SMA Female 2x2 2.4G wifi Directional Panel Antenna, 14dBi (Use with JWDA-Mount-Kit-00)
JWDA-5G-22dBi-SM-00	Outdoor SMA Female 2x2 5G wifi Directional Panel Antenna, 22dBi with Mounting Kit
RF Cable	
JWA-Cable-SM-to-SM-00	RF Cable RP-SMA Male to RP-SMA Female with 1500mm waterproof cap cable
JWA-Cable-NM-to-NM-00	RF Cable N-Type Male to N-Type Male with 1500m
JWA-Cable-NM-to-NM-WP-00	RF Cable N-Type Male to N-Type Male with 1500mm waterproof cap cable
JWA-Cable-NM-to-SM--WP-00	RF Cable N-Type Male to SMA male with 1500mm waterproof cap cable
JWA-Cable-NM-to-NF--WP-00	RF Cable N-Type Male to N-Type Female with 1500mm waterproof cap cable

WiFi Antenna Distance Reference Table

Model Name	Connector type	Frequency	Default Antenna	Omni Antenna						
				JWA-2.4/5G-2dBi-SM-00	JWA-2.4G-5dBi-NF-00	JWA-2.4G-7dBi-NF-00	JWA-2.4G-9dBi-NF-00	JWA-5G-7dBi-NF-00	JWA-2.4/5G-4/6dBi-NF-00	JWA-5G-12dBi-NF-00
				2.4G/5G 2dBi	2.4G 5dBi	2.4G 7dBi	2.4G 9dBi	5G 7dBi	2.4/5G 4/6dBi	5G 12dBi
				SMA	N-Type	N-Type	N-Type	N-Type	N-Type	N-Type
JetWave 2211C	SMA	2.4G	0.2km	0.15km	0.6km	1km	1.5 km		1.5 km	
		5G	0.15km	0.1km				1km	1.5 km	1.5 km
JetWave 2212 & 3000 series	SMA	2.4G	0.3km	0.15km	0.6km	1km	1.5 km		1.5 km	
		5G	0.2km	0.1km				1km	1.5 km	1.5 km
JetWave 2460	Embedded	2.4G/5G	1.5km	n/a						
JetWave 2460E	N-Type	2.4G	1.5km	0.15km	0.6km	1km	1.5 km		1.5 km	
		5G	1.5km	0.1km				1km	1.5 km	1.5 km
JetWave 4221/4211	N-Type	2.4G	n/a	0.15km	0.6km	1km	1.5 km		1.5 km	
		5G		0.1km				1km	1.5 km	1.5 km
JetWave 4020	Embedded	2.4G	1.5km	n/a						
		5G	1.5km							
JetWave 4020E	N-Type	2.4G	n/a		1km	1.2km	2 km		1.5 km	
		5G						2 km	1.5 km	3 km
JetWave 4221/4211 HP	N-Type	2.4G	n/a		1.5km	2.4km	3 km		3km	
		5G						3 km	4km	4 km

Model Name	Connector type	Frequency	Default Antenna	Directional Panel Antenna			
				JWDA-2.4G-12dBi-NF-00	JWDA-2.4G-14dBi-SM-00	JWDA-5G-14dBi-NF-00	JWDA-5G-22dBi-SM-00
				2.4G 12dBi	2.4G 14dBi	5G 14dBi	5G 22dBi
				N-Type	SMA	N-Type	SMA
JetWave 2211C	SMA	2.4G	0.2km	2.5 km	3 km		
		5G	0.15km			2.5 km	3.5 km
JetWave 2212 & 3000 series	SMA	2.4G	0.3km	2.5 km	3 km		
		5G	0.2km			2.5 km	3.5 km
JetWave 2460	Embedded	2.4G/5G	1.5km	n/a			
JetWave 2460E	N-Type	2.4G	1.5km	2.5 km	3 km		
		5G	1.5km			2.5 km	3.5 km
JetWave 4221/4211	N-Type	2.4G	n/a	2.5 km	3 km		
		5G				2.5 km	3.5 km
JetWave 4020	Embedded	2.4G	1.5km	n/a			
		5G	1.5km				
JetWave 4020E	N-Type	2.4G	n/a	3 km	3km		
		5G				3.5km	5km
JetWave 4221/4211 HP	N-Type	2.4G	n/a	4 km	4.5km		
		5G				7km	10km

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WiFi Antenna list

JWA-2.4/5G-2dBi-SM-00 | JWA-2.4G-5dBi-NF-00 | JWA-2.4G-7dBi-NF-00 | JWA-2.4G-9dBi-NF-00 | JWA-5G-7dBi-NF-00 | JWA-2.4/5G-4/6dBi-NF-00 | JWA-5G-12dBi-NF-00

Omni Antenna							
Application	Indoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
Connector Type	SMA	N-Type	N-Type	N-Type	N-Type	N-Type	N-Type
Gain (dBi)	2dBi	5dBi	7dBi	9dBi	7dBi	2.4G 5dBi 5G 7dBi	12dBi
Angle — Horz	360°	360°	360°	360°	360°	360°	360°
Angle — Vert	360°	10° - 12°	10° - 12°	10° - 12°	10° - 12°	360°	10° - 12°
Dimension (mm)	8 x 8 x 3	18.7 x 2 x 2.2	29 x 2 x 2	46 x 2.3 x 2.3	19 x 2.2 x 2.2	19 x 2.2 x 2.2	45 x 2.2 x 2.2
Remark	AGV application Point to multipoint	Point to multipoint	Point to multipoint	Point to multipoint	Point to multipoint	Point to multipoint	Point to multipoint

JWDA-2.4G-12dBi-NF-00 | JWDA-2.4G-14dBi-SM-00 | JWDA-5G-14dBi-NF-00 | JWDA-5G-22dBi-SM-00

Directional Panel Antenna				
Frequency	2.4G	2.4G	5G	5G
Application	Outdoor	Outdoor	Outdoor	Outdoor
Connector Type	N-Type	SMA	N-Type	SMA
Gain (dBi)	12dBi	14dBi	14dBi	22dBi
Angle — Horz	35°	32°	32°	9°
Angle — Vert	30°	30°	30°	9°
Dimension (mm)	20 x 12 x 3	22 x 22 x 3.1	22 x 22 x3.4	38 x 38 x 18
Remark	Point to Point Long distance	Point to Point Long distance	Point to Point Long distance	Point to Point Long distance

JWA-Cable-SM-to-SM-00 | JWA-Cable-NM-to-NM-00 | JWA-Cable-NM-to-NM-WP-00 | JWA-Cable-NM-to-SM--WP-00

RF Cable			
Connector	RP-SMA Male to RP-SMA Female	N-Type Male to N-Type Male	N-Type Male to N-Type Male	N-Type Male to SMA male
Length	1500mm	1500mm	1500mm	1500mm