

# Industrial Cellular Router/Gateway

## JetWave 2424 Series



- Industrial Slim Size Cellular Router/IP Gateway
- Next Generation Long Term Evolution (LTE) technology, 2x2 DL-MIMO, max. 150MDL/50M UL
- Dual SIM for Carrier Provider Redundant
- 4 x Fast Ethernet Port Routing/Bridging (1 WAN +3 LAN)
- VPN/Firewall/DMZ and Secure VPN Connectivity
- IEEE 802.11n 2.4GHz WIFI, up to 2T2R MIMO, 300Mbps
- LAN/WIFI to LTE Routing
- LTE/WAN Failover
- Remote management by Web GUI, SNMP, Korenix View, Mobile Manager, Korenix NMS
- 24V(12-48V) DC Input
- Wide Temperature, Heavy Industrial Grade design



LTE Gateway



Dual SIM



WIFI 2.4GHz

### Overview

The JetWave 2424 series is an industrial grade secure Cellular Router/IP Gateway for the Ethernet to cellular machine-to-machine (M2M) communication market. The JetWave 2424 Series equips one embedded 4G LTE module, dual SIM standby for carrier provider redundant, 4 Fast Ethernet ports for routing or switching. With the next generation Long Term Evolution (LTE) technology, it supports up to 150Mbps DL and 50Mbps UL high speed bandwidth for cellular communication.

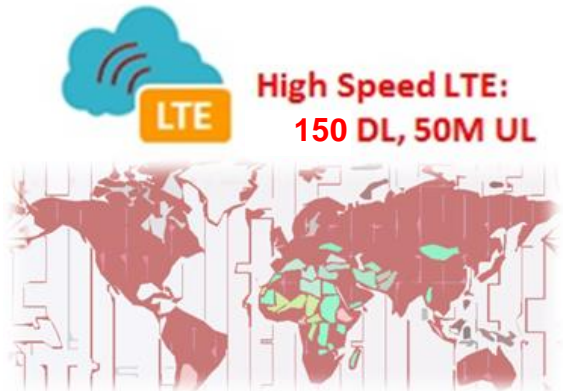
JetWave 2424 series equips with one additional 802.11n 2.4GHz WIFI interface as cellular traffic offload and local access solution, it reduces a lot of connecting cost. The cellular router/gateway also supports remote management, secure connectivity and firewall/NAT features. The industrial grade design supports 24V(12-48V)DC input and wide operating temperature under heavy industrial environment protection.

Model Name	4G LTE	WIFI	Ethernet	SIM	Operating Temp.
JetWave 2424-E (EU)	LTE-E	2.4GHz WIFI	4xFE	2	-40-70°C
*JetWave 2424-A (AU)	LTE-A	2.4GHz WIFI	4xFE	2	-40-70°C
*JetWave 2424-C (CN)	LTE-C	2.4GHz WIFI	4xFE	2	-40-70°C
*JetWave 2424-U (US)	LTE-U	2.4GHz WIFI	4xFE	2	-40-70°C

\*Regional SKU release plan

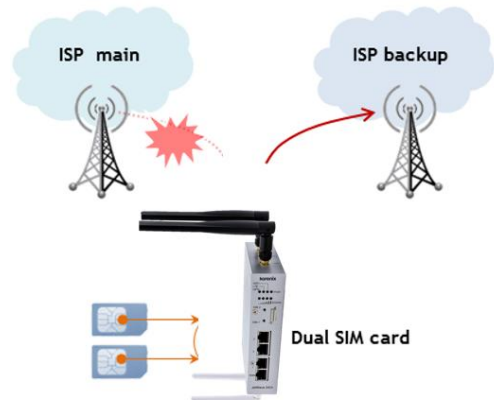
## Next Generation Long Term Evolution (LTE)

The product can support the next generation Long Term Evolution (LTE) 2x2 DL MIMO technology to reach up to 150M Downlink and 50M Uplink speed. The embedded LTE module also backward compatible with UMTS/HSPA connection which enables remote and mobile control to the LAN and WIFI interfaces.



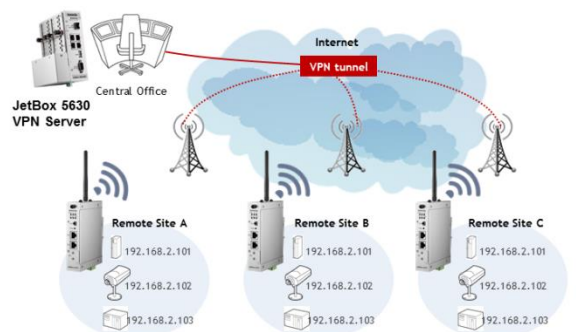
## Dual SIM Standby for 4G/LTE Redundancy

The product support dual SIM standby for 3G/LTE Redundant. While the primary SIM connection fails, the second SIM recovers to the other carrier provider.



## Secure Remote Connection

The product support VPN for secure remote connection. VPN provides secure communication between the central office and the remote sites through the public Internet. Choose the JetBox 5630 as VPN server, JetWave 2424 series as VPN client is the ideal secure remote connection solution.



# Specification

Technology	
Standard	IEEE 802.3 for 10BaseT/IEEE 802.3u for 10/100Base-TX/IEEE 802.3ab for 1000BaseT IEEE 802.11 g/n Wireless LAN IEEE 802.11i Wireless Security 3GPP Release 9 Long Term Evolution (LTE)
Interface	
Ethernet Port	4x 10/100 Base-T(X) RJ-45, Auto MDI/MDIX
Cellular	3G or LTE for the cellular machine-to-machine (M2M) communication
WIFI	IEEE802.11 b/g/n, 2.4GHz
SIM Socket	2 (Dual SIM Standby)
Power Input	24VDC (12-48VDC) input
Reset	Reset Switch, Reset to Default over 7 seconds
LED	GPS: Green On/Off: GPS enabled/GPS disabled LTE: Green On/Off: LTE enabled/LTE disabled Wi-Fi: Green On/Off: WiFi enabled/WiFi disabled PWR: Green On/Off: PWR On/PWR Off LTE Signal: Excellent Green On/ Green On/ Green On/ Green On Good Green On/ Green On/ Green On/ Green Off Medium Green On/ Green On/ Green Off/ Green Off Low Green On/ Green Off/ Green Off/ Green Off Eth 1-4: Green On/Blinking/Off: Link Up/Activity/Link Down
SMA Antenna Socket	LTE 1, LTE 2, WIFI 1, WIFI 2, GPS(Request by demand)
WIFI	
CPU	Qualcomm Atheros 650MHz
Operating Frequency	FCC : 2.412-2.462GHz CE : 2.412-2.472GHz (Programmable for different country regulations)
MIMO	2T2R
RF Modulation	802.11b/g/n: OFDM (BPSK,QPSK,16-QAM,64QAM)
RF Output Power	20/15 dBm at 802.11g 1Mbps/54Mbps, 18/17 dBm at 802.11n HT20/HT40 (MCS0) 13/12 dBm at 802.11n HT20/HT40 (MCS15) The actual power vary with each country's regulation
RF Sensitivity	802.11g: -91dBm@6Mbps; -78dBm@54Mbps 802.11n HT20: -90dBm@MCS0/8; -71dBm@MCS7/15 802.11n HT40: -89dBm@MCS0/8; -69dBm@MCS7/15
Cellular	
LTE Standard	3GPP Release 9 Long Term Evolution (LTE), 2x2 DL-MIMO LTE category 4: max. 150 Mbps DL, 50 Mbps UL
LTE-EU Band	FDD-LTE - B1/ B3/ B5/ B7/ B8/ B20 TDD-LTE - B38/ B40 /B41 WCDMA - B1/ B5/ B8
LTE-AU Band	FDD-LTE - B1/ B2/ B3/ B4/ B5/ B7/ B8/ B28 TDD-LTE - B40 WCDMA - B1/ B2/ B5/ B8
LTE-CN Band	FDD-LTE - B1/ B3/ B8 TDD-LTE - B38/B39/B40/41 WCDMA - B1/B8 TDSCDMA - B34/B39
LTE-US Band	FDD-LTE - B2 /B4 /B5/B12 /B13/ B14/ B66 /B71 WCDMA - B2 /B4/ B5

<b>Management</b>	
<b>Management</b>	Web GUI, Telnet, SNMP, IP Setup, DDNS Setup, Management VLAN ID, Configuration Backup/Restore, Firmware Upgrade, Reload Default, Ping, SNTP
<b>WLAN Setup</b>	Wireless Basic Settings, Multiple SSID, Radio on/off, SSID Broadcast, Frequency selection, VLAN ID, Advanced Settings; LTE/WAN Failover
<b>3G/4G LTE</b>	3G/LTE Configuration, CHAP/PAP Authentication, SIM Security, Status, Debug Log, Watchdog, Mobile Management, Dual SIM Standby/Redundant, Cellular/Eth-WAN Failover
<b>Router/Gateway</b>	NAT Routing, DHCP Server/Client
<b>SMS Message</b>	Send short message (GSM 8-bit/UCS2 16-bit) format, Send result log, Remote management Configuration, Received SMS log
<b>SNMP</b>	Simple Network Management Protocol v1/v2c/v3, Function-based MIB, SNMP Trap
<b>Status</b>	System Information, Bridge Table, ARP Table, DHCP Client List
<b>System Log</b>	System events log
<b>Utility/NMS</b>	Korenix View Utility, Korenix Mobile Manager
<b>Security</b>	
<b>Secured Access</b>	HTTPS, SSH, IEEE 802.1X
<b>Firewall</b>	Firewall Setting, DMZ, Port forwarding (IP/MAC/Port filtering)
<b>VPN</b>	Open VPN Client, IPsec, PPTP Client
<b>Power Requirement</b>	
<b>Power</b>	Dual DC24V (12-48VDC) input
<b>Power Consumption</b>	Standby Mode: 2.64W (Power on only) Full Load: Max. 6.24 Watts *Suggest to reserve 15% tolerance power in practical installation.
<b>Mechanical</b>	
<b>Enclosure</b>	Aluminum housing
<b>Antenna connector</b>	R-SMA Female connector
<b>Mounting</b>	Din-Rail, Desktop
<b>Dimension</b>	140 mm(H) x 110 mm(D) x 33 mm(W)
<b>Weight</b>	563 g with package
<b>Environmental</b>	
<b>Operating Temperature</b>	-40 - 70°C
<b>Operating Humidity</b>	5% - 95% (operating)
<b>Storage Temperature</b>	-40 - 85 °C
<b>Approvals</b>	
<b>Certification</b>	CE/RED: CE EN55022/55024 EN 61000-6-2/4 Industrial Environment EN 301 489-1/17 EN 301 908-1 EN 300 328 V2.2.2 EN50385/EN62311 MPE assessment Safety EN62368-1
<b>Warranty</b>	5 years