

# APN-320N

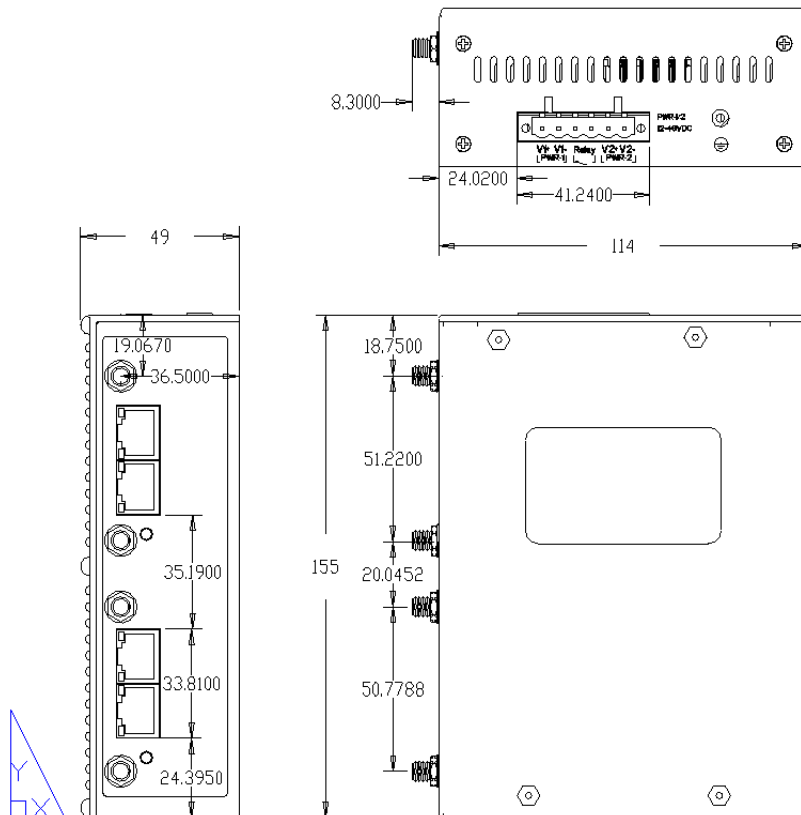
Industrial IEEE 802.11a/b/g/n Dual Radio Wireless Access Point/Client/Bridge/Repeater



## Features

- ▶ Single Unit Design Featuring Dual Independent Radios
- ▶ Industrial MIMO Wireless Solution (2\* 2Tx, 2Rx)
- ▶ Supports IEEE 802.11a/b/g/n
- ▶ Maximum Data Rate: 300Mbps Per Radio
- ▶ Software Selectable: AP, Client, Bridge and Repeater Mode
- ▶ Supports Daisy Chain Applications Through Dual Ethernet Ports
- ▶ WEP, WPA and WPA2 (TKIP, AES)
- ▶ IEEE 802.11i and IEEE 802.1x Security
- ▶ Management Via Web Interface; HTTP/ HTTPS, Telnet and SSH
- ▶ Event Warnings By Syslog, SNMP Trap
- ▶ Redundant Power Input with Error Relay
- ▶ Supports Spanning Tree Protocol (STP)
- ▶ Supports IEEE 802.1q VLAN Tagging
- ▶ 5 Year Warranty

## Dimensions



## Radio Specification

TX SPECIFICATIONS									
802.11b	DataRate	2.437GHz (per chain)	2.437GHz (2 chains)	Tolerance	802.11g	DataRate	2.437GHz (per chain)	2.437GHz (2 chains)	Tolerance
	1Mbps	18dBm	21dBm	+1.5/-2.0 dB		6-24Mbps	17dBm	20dBm	+1.5/-2.0 dB
	5.5Mbps	18dBm	21dBm	+1.5/-2.0 dB		36Mbps	17dBm	20dBm	+1.5/-2.0 dB
	11Mbps	18dBm	21dBm	+1.5/-2.0 dB		48Mbps	16dBm	19dBm	+1.5/-2.0 dB
						54Mbps	15dBm	18dBm	+1.5/-2.0 dB
2.4GHz 11n HT20	DataRate	2.437GHz (per chain)	2.437GHz (2 chains)	Tolerance	2.4GHz 11n HT40	DataRate	2.437GHz (per chain)	2.437GHz (2 chains)	Tolerance
	MCS 0/8	17dBm	20dBm	+1.5/-2.0 dB		MCS 0/8	17dBm	20dBm	+1.5/-2.0 dB
	MCS 1/9	17dBm	20dBm	+1.5/-2.0 dB		MCS 1/9	17dBm	20dBm	+1.5/-2.0 dB
	MCS 2/10	17dBm	20dBm	+1.5/-2.0 dB		MCS 2/10	17dBm	20dBm	+1.5/-2.0 dB
	MCS 3/11	17dBm	20dBm	+1.5/-2.0 dB		MCS 3/11	17dBm	20dBm	+1.5/-2.0 dB
	MCS 4/14	17dBm	20dBm	+1.5/-2.0 dB		MCS 4/14	17dBm	20dBm	+1.5/-2.0 dB
	MCS 5/13	17dBm	20dBm	+1.5/-2.0 dB		MCS 5/13	17dBm	20dBm	+1.5/-2.0 dB
	MCS 6/14	14dBm	17dBm	+1.5/-2.0 dB		MCS 6/14	14dBm	17dBm	+1.5/-2.0 dB
	MCS 7/15	10dBm	13dBm	+1.5/-2.0 dB		MCS 7/15	9dBm	12dBm	+1.5/-2.0 dB
802.11a	DataRate	5.500GHz (per chain)		Tolerance	5.500GHz (2 chains)		Tolerance		
	6-24Mbps	17dBm		20dBm	20dBm		+1.5/-2.0 dB		
	36Mbps	15dBm		18dBm	18dBm		+1.5/-2.0 dB		
	48Mbps	13dBm		16dBm	16dBm		+1.5/-2.0 dB		
	54Mbps	12dBm		15dBm	15dBm		+1.5/-2.0 dB		
5GHz 11n HT20	DataRate	5.500GHz (per chain)	5.500GHz (2 chains)	Tolerance	5GHz 11n HT40	DataRate	5.500GHz (per chain)	5.500GHz (2 chains)	Tolerance
	MCS 0/8	17dBm	20dBm	+1.5/-2.0 dB		MCS 0/8	17dBm	20dBm	+1.5/-2.0 dB
	MCS 1/9	17dBm	20dBm	+1.5/-2.0 dB		MCS 1/9	17dBm	20dBm	+1.5/-2.0 dB
	MCS 2/10	17dBm	20dBm	+1.5/-2.0 dB		MCS 2/10	17dBm	20dBm	+1.5/-2.0 dB
	MCS 3/11	17dBm	20dBm	+1.5/-2.0 dB		MCS 3/11	17dBm	20dBm	+1.5/-2.0 dB
	MCS 4/14	17dBm	20dBm	+1.5/-2.0 dB		MCS 4/14	17dBm	20dBm	+1.5/-2.0 dB
	MCS 5/13	16dBm	19dBm	+1.5/-2.0 dB		MCS 5/13	16dBm	19dBm	+1.5/-2.0 dB
	MCS 6/14	12dBm	15dBm	+1.5/-2.0 dB		MCS 6/14	12dBm	15dBm	+1.5/-2.0 dB
	MCS 7/15	8dBm	11dBm	+1.5/-2.0 dB		MCS 7/15	8dBm	11dBm	+1.5/-2.0 dB
RX SPECIFICATIONS									
802.11b	DataRate	Sensitivity (2 chains)		Tolerance					
	1M			-93dBm		±2dB			
	5.5M			-93dBm		±2dB			
	11M			-91dBm		±2dB			
802.11a	DataRate	Sensitivity (2 chains)		Tolerance					
	6M	-94dBm		±2dB					
	9M	-94dBm		±2dB					
	12M	-93dBm		±2dB					
	18M	-90dBm		±2dB					
	24M	-86dBm		±2dB					
	36M	-83dBm		±2dB					
	48M	-79dBm		±2dB					
	54M	-75dBm		±2dB					
5GHz 11n HT20	MCS0	-93dBm		±2dB					
	MCS1	-91dBm		±2dB					
	MCS2	-87dBm		±2dB					
	MCS3	-85dBm		±2dB					
	MCS4	-82dBm		±2dB					
	MCS5	-77dBm		±2dB					
	MCS6	-75dBm		±2dB					
	MCS7	-72dBm		±2dB					
5GHz 11n HT40	MCS0	-90dBm		±2dB					
	MCS1	-88dBm		±2dB					
	MCS2	-85dBm		±2dB					
	MCS3	-82dBm		±2dB					
	MCS4	-79dBm		±2dB					
	MCS5	-76dBm		±2dB					
	MCS6	-72dBm		±2dB					
	MCS7	-70dBm		±2dB					
802.11g	DataRate	Sensitivity (2 chains)		Tolerance					
	6M	-94dBm		±2dB					
	9M	-94dBm		±2dB					
	12M	-93dBm		±2dB					
	18M	-90dBm		±2dB					
	24M	-86dBm		±2dB					
	36M	-83dBm		±2dB					
	48M	-80dBm		±2dB					
	54M	-78dBm		±2dB					
2.4GHz 11n HT20	MCS0	-93dBm		±2dB					
	MCS1	-92dBm		±2dB					
	MCS2	-90dBm		±2dB					
	MCS3	-86dBm		±2dB					
	MCS4	-83dBm		±2dB					
	MCS5	-78dBm		±2dB					
	MCS6	-76dBm		±2dB					
	MCS7	-73dBm		±2dB					
2.4GHz 11n HT40	MCS0	-90dBm		±2dB					
	MCS1	-89dBm		±2dB					
	MCS2	-86dBm		±2dB					
	MCS3	-82dBm		±2dB					
	MCS4	-80dBm		±2dB					
	MCS5	-76dBm		±2dB					
	MCS6	-73dBm		±2dB					
	MCS7	-71dBm		±2dB					

## ► Specifications

### Interface

Ethernet Port	Total of 4 RJ45 ports: 2 * 10/100Tx per Radio
WLAN	Dual Independent Wireless Radio's
Antenna	Four External SMA antennas (Supports MIMO) 2* (2tx, 2rx)
LED	Power 1 & Power 2(ACT & Fail), Ethernet Link, Diagnostic, Signal Strength Indicators

### Technology

Protocol	ICMP IP, TCP, UDP, DHCP, BootP, ARP/RARP, DNS, HTTPS, SNMP v1/v2, Trap, STP, Private MIB
IEEE	IEEE 802.3, IEEE 802.3u, IEEE 802.3x
Transmit Power	Controllable Power Output (1dB per step)
WLAN Operation Mode	AP / Client / Bridge / Repeater
Encryption Security	IEEE 802.11i PSK (256-bit Key Pre-shared Key Supported) 802.1x and RADIUS Supported
Wireless Security	ESSID Broadcast Disable, MAC Address Filter

### Frequency Range

IEEE 802.11b/g	2.412GHz ~ 2.462GHz (US & Canada) 2.412GHz ~ 2.472GHz (Europe) 2.412GHz ~ 2.484GHz (Japan)
IEEE 802.11a/n	5.150 ~ 5.350 GHz, 5.470 ~ 5.725GHz, 5.725 ~ 5.850 GHz (US & Canada) 5.150 ~ 5.350 GHz, 5.470 ~ 5.725GHz, 5.725 ~ 5.875 GHz (Europe) 5.150 ~ 5.250 GHz, 5.250 ~ 5.350GHz, 5.470 ~ 5.725GHz(Japan)

### Power

Protection	Ground Screw Designed
Power Input	Redundant Power 12 ~ 48VDC in 6-Pin Terminal Block
Power Consumption	10 Watts
Radio Power	100mW Per Radio

### Mechanical Characteristics

Housing	IP30 Metal Enclosure
Dimensions	46 x 155 x 115 mm (1.81 x 6.10 x 4.53 in.)
Weight	Unit Weight: 1.30 lbs. Shipping Weight: 2.10 lbs.
Mounting	Din-Rail and Wall Mount Bracket Included

### Environmental Limits

Operating Temperature	STD: -10° to 60° C Extended: -35° to 70° C
Storage Temperature	-40°C ~ 90°C
Ambient Relative Humidity	5 to 95%, (non-condensing)

### Regulatory Approvals

Green	RoHS Compliant
Certification	CE, FCC: This device complies with part 15 of the FCC Rules
Warranty	5 Years

## ► Ordering Information

APN-320N	Industrial IEEE 802.11a/b/g/n Dual Radio Wireless Access Point/Client/ Bridge/Repeater
APN-320N-T	Industrial IEEE 802.11a/b/g/n Dual Radio Wireless Access Point/Client/ Bridge/Repeater, EOT: -35° to 70° C

### Optional Accessories

MDR-40-24	40 Watt Industrial Single Output Miniature DIN Rail Power Supply
DR-60-24	60 Watt Industrial DIN Rail Power Supply
DR-75-24	75 Watt Industrial DIN Rail Power Supply