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Product Highlights

- 802.11ac support
- 2.4GHz and 5GHz dual-band con-current
- 1300Mbps(5G) and 450Mbps(2.4G) of data rate
- Standard 802.3at Power over Ethernet (PoE)
- Multiple operating modes: TAP/FAP/Router
- Wall Mount and Ceiling Mount Design

AC-1027-O

IEEE 802.11a/b/g/n/ac Wireless AP

AC-1027-O is a cost-effective IEEE 802.11 a/g/b/g/n/ac wireless cloud AP specially designed for industrial applications. With dual bands and internal antennas, it is applicable to user density scenarios. Working with zCloud platform, it can be centrally managed at anytime and anyplace. AC-1027-O can also be centrally managed by Z-Com wireless access controllers. Thanks to its pole-mounting design, AC-1027-O can be easily mounted to outdoor scenarios. With PoE remote power supply design, it is especially applicable for hotspots, museums, public squares, etc..

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Intelligent Management

Built in with cloud management module, AC-1027-O is able to be registered on Z-Cloud platform. Thus, network administrator can configure device and check device information through zCloud.

Comprehensive Security

AC-1027-O supports complete data security guarantee mechanism and multiple encryption technologies to thoroughly ensure WLAN data transmission security. It also supports up to 8 virtual APs. Each virtual AP can be set independent VLAN ID and users connected to each virtual AP are isolated from users in other virtual APs so as to ensure data security.

Industrial-grade Design

Specially designed for industrial applications, AC-1027-O guarantees WLAN operation in outdoor applications with its enclosure level of IP67. Z-Com‘s unique roaming and QoS utilization technology ensures the best service qualities of data, voice and video.

Simple Installation

Its design of fat-and-thin AP in one device makes remote and centralized configuration and management possible. The pole-mounting and internal antenna design makes AC-1027-O much easier to be installed to wall and ceiling. The standard 802.3af/at PoE enhance deployment flexibility and greatly reduces deployment difficulties and cost.

Hardware Specification			
Features	**Additional Information**		
Standard compliance	IEEE802.3u MDI / MDIX 10/100 Base-T Ethernet IEEE 802.ab 1000 Base-T Ethernet IEEE802.11b/g/n wireless LAN standard IEEE 802.11ac wireless LAN standard		
Antenna type	3 * 2G 5dBi PCB internal antenna 3 * 5G 5dBi PCB internal antenna		
Ground	1 * Ground terminal		
Interfaces	1 * RJ45 support 10/100/1000Mbps		
Ethernet Interface	10/100/1000 BASE-T RJ-45 Ethernet connector		
PoE support	IEEE 802.3at Giga PoE support		
Current consumption	≤ 25W		
Data rate	802.11a: 6/9/12/18/24/36/48/54 Mbps & Auto fallback 802.11b: 1/2/5.5/11 Mbps & Auto fallback 802.11g: 6/9/12/18/24/36/48/54 Mbps & Auto fallback 802.11n: up to 450Mbps 802.11ac: up to 1300Mbps		
Data modulation type	- IEEE 802.11 a/b/g • DSSS (DBPSK, DQPSK, CCK) • OFDM (BPSK, QPSK, 16-QAM, 64-QAM) - IEEE 802.11gn • OFDM (BPSK, QPSK, 16-QAM, 64-QAM) - IEEE 802.11ac • OFDM (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM)		
Operating Frequency & Channels	IEEE 802.11b/g/gn 20MHz ISM Band • USA (FCC): 2.412GHz~2.462GHz • Europe (ETSI): 2.412GHz~2.472GHz IEEE 802.11gn 40MHz Band • USA (FCC): 2.422GHz~2.452GHz • Europe (ETSI): 2.422GHz~2.462GHz IEEE 802.11a/an 20MHz/40MHz ISM Band • USA (FCC): 5.15GHz~5.25GHz; 5.725GHz~5.85GHz • Europe (ETSI): 5.15GHz~5.35GHz; 5.47GHz~5.725GHz		
Output Power[1] @ 25℃	IEEE 802.11b	1~11Mbps	20
	IEEE 802.11g	6~54Mbps	20

[1] 1. We just list the Target Power here, the exact EMI Conducted Power will be set in the CTL Table of the Card (base on EMC regulation), and the driver will limit the output power according to the CTL Table, thus sometimes the actual output power will be lower than the target power. For the detailed CTL Table Settings, please contact with our support engineers.

2. Disable 5600~5650MHz due to Environment Canada weather satellites operating in the band are protected.

3. Disable 5250~5350MHz & 5470~5725MHz due to DFS band at FCC domain.

(per chain ±2 dBm) ***All modes are measured via single chain.*	IEEE 802.11gn	HT20	MCS 0~23	20	
		HT40	MCS 0~23	20	
	IEEE 802.11a	6~48Mbps		5180、5240	17
				5260、5320、5500、5600、5745、5825	20
		54Mbps		5180、5240	15
				5260、5320、5500、5600、5745、5825	18
	IEEE 802.11an	HT20	MCS 0~6, 8~14, 16~22	5180、5240	17
				5260、5320、5500、5600、5745、5825	20
			MCS7/15/23	5180、5240	15
				5260、5320、5500、5600、5745、5825	18
		HT40	MCS 0~6, 8~14, 16~22	5180、5240	17
				5260、5320、5500、5600、5745、5825	20
			MCS7/15/23	5180、5240	15
				5260、5320、5500、5600、5745、5825	18
	802.11ac	VHT20	MCS 0~6	5180、5240	17
				5260、5320、5500、5600、5745、5825	20
			MCS 7	5180、5240	15
				5260、5320、5500、5600、5745、5825	18
			MCS 8	5180、5240	14
				5260、5320、5500、5600、5745、5825	16
		VHT40	MCS 0~6	5180、5240	17
				5260、5320、5500、5600、5745、5825	20
			MCS 7	5180、5240	15
				5260、5320、5500、5600、5745、5825	18
			MCS 8	5180、5240	14
				5260、5320、5500、5600、5745、5825	16
			MCS 9	5180、5240、5260、5320、5500、5600、5745、5825	13
		VHT80	MCS 0~6	5180、5240	17
				5260、5320、5500、5600、5745、5825	20
			MCS 7	5180、5240	15

				5260、5320、5500、5600、5745、5825	18
			MCS 8	5180、5240	14
				5260、5320、5500、5600、5745、5825	16
			MCS 9	5180、5240、5260、5320、5500、5600、5745、5825	13

Sensitivity (PER <10%, per chain>=Spec; dBm)	IEEE 802.11b	11Mbps		-88
	IEEE 802.11g	6Mbps		-88
		54Mbps		-72
	IEEE 802.11a	6Mbps		-92
		54Mbps		-75
	IEEE 802.11gn	HT20	MCS0/8/16	-88
			MCS7/15/23	-68
		HT40	MCS0/8/16	-86
			MCS7/15/23	-66
	IEEE 802.11an	HT20	MCS0/8/16	-92
			MCS7/15/23	-74
		HT40	MCS0/8/16	-89
			MCS7/15/23	-69
	IEEE 802.11ac	VHT20	MCS0 1~3ss	-90
			MCS6	-70(1~3ss)
			MCS7 1~3ss	-66
			MCS8 1~3ss	-64
		VHT40	MCS0 1~3ss	-87
			MCS7 1~3ss	-67
			MCS8 1~3ss	-63
			MCS9	-61(1~3ss)
		VHT80	MCS0 1~3ss	-84
			MCS7 1~3ss	-64
			MCS8 1~3ss	-60
			MCS9	-58(1~3ss)

Firmware Specifications	
Features	**Additional Information**
Standard Compliance	- IEEE 802.3 and 802.3u 10Base-T and 100Base-TX physical layer specification - IEEE 802.11g specification compliance for wireless LAN - IEEE 802.11b specification compliance for wireless LAN - IEEE 802.1x security standard support - Power over Ethernet, IEEE 802.3at compliant
Operating Mode	- Thin AP mode - Fat AP mode - Router mode
Thin AP	- FIT AP zero configuration - DHCP option43 - DHCP detection - Static IP detection - N backup
Router Features	- WAN port / LAN port networking setting - WAN port PPPoE function - NAT support - Firewall protection support MAC address filtering and IP address Filtering
Multiple BSSID	- Support up to 16 SSID Profile setting - Support up to 4 Strict Priority Queue at least and configuration of certain SSID corresponding to Strict Priority Queue so as to distinguish link service priority - Limitation of client connections (# is configurable, default: unlimited) - Bandwidth control
Spanning Tree Protocol	802.1d support
DHCP Client	- Ability to act as a DHCP client to get IP address from DHCP server from LAN port. - In DHCP client mode, if DHCP server is not available, then use default IP address.
DHCP Server	- Allow DHCP servers to assign, or lease, IP addresses to computers and other devices that are enabled as DHCP clients.
VLAN	- Support per SSID VLAN tagging - Support system VLAN tagging
VPN pass through	- IPSec, PPTP and L2TP pass through support
Transmit Power Adjustment	- Manually adjustable • Transmit power adjustable unit should be 1dBm

	• Transmit power adjustable range should be at least 8dB
Device Remote Management	- Support remote management via SSH, FTP, WWW, and SNMP - Administrator can specify the following method to allow for device management: • Interface (WLAN or Ethernet) • MAC address • IP address
System monitoring	- System status
Management	- Embedded Web Configuration management - Command-line interface: SSH support - FTP/Web for firmware downloading and configuration backup and restore. - Built-in Diagnostic Tool - SNMP Management (v1, v2C, C3)
Security	- MAC address filtering through WLAN (support 128 account) - IEEE 802.1x security (EAP-TLS, EAP-TTLS, PEAP, EAP-SIM, -FAST, -AKA) - 64/128-bits WEP - Both WPA/WPA2 PSK & Enterprise support - Mixed WPA& WPA2 mode (support both WPA and WPA2 clients)
Quality of Service	WMM support
Diagnostics Capabilities	- The access point can perform self-diagnostic tests. These tests check the integrity of the following circuits: • FLASH memory • DRAM • Ethernet port • Wireless port - Sys log • Error log • Trace log • Packet Log
Association Management	- 5G Priority: In a dual-band AP, 5GHz band has a higher STA association priority than 2.4GHz band.
	- 11n Priority: 802.11n standard gets a higher association priority than 802.11a/b/g standards
	- Support Air Time Fairness for clients compliant to different standards of 802.11a/b/g/n.
	- Support the setting of automatic Disassociation with low-level MCS users.

Integrated Spectrum Analyzer	- Ability to detect interference source and avoid interference by automatically selecting the best channel. • Ability to detect WLAN Devices Interference • Ability to detect Non WLAN Devices Interference
Newly-added MIB Nodes	- wlanStationTable • SNR (Signal-to-Noise Ratio) of STAs associated to AP should be measured in dB. • Physical layer Transmit Rate of STAs associated to AP • Packet Error Ratio of STAs associated to AP
	- wlanStatisticTable • Co-Channel Interference, CCI • Adjacent Channel Interference, ACI • WLAN Devices Interference • Non WLAN Devices Interference

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Physical Specifications	
Items	**Description**
Dimension	242.05mm x 242.05mm x 145.45mm
Weight	1.7kg (including Ceilling mount/PSE/Powre cord)
IP rate	IP67

Environment Specifications	
Items	**Description**
Operating Temperature	-40 to 60°C
Storage Temperature	-40 to 70°C
Operating Humidity	15 to 90% RH
Storage Humidity	15 to 90% RH
Green	RoHS/Reach compliant
Warranty	2 years

Packaging Specifications	
Item	**Comments**
Carton	Suitable size and material to protect product
Brown Box	Suitable size and material to protect product
Cushion	Suitable size and material to protect product
PE Bag	Suitable size and material to protect product
Mounting Kit	Suitable size and material to protect product