

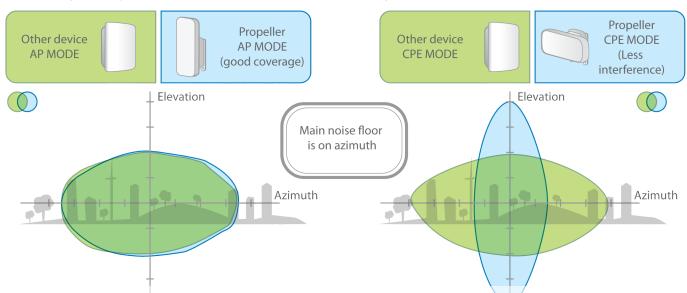


The APC Propeller 5 is a new generation wireless device designed for client and small scale base-station applications. It has a unique mechanism to do mechanical antenna parameter shifting and achieve the best performance in different operation modes (patent pending).

This product is equipped with a high output power MIMO radio (up to 28 dBm) and 15 dBi dual-polarized antenna which make the device ideal for short to medium range wireless communication.

Dual firmware image will allow safe software upgrades. The device will restart using the prior firmware in the event of an upgrade failure.

The APC Propeller 5 uses an advanced and feature-rich operating system which supports bridge/router and repeater modes (repeater mode allows the product to operate as an access point and as a station at the same time). Deliberant OS also supports iPoll - proprietary wireless communication technology to increase throughput, packet per second rate and stabilize latency on your network. It has a user-friendly Adobe Flex based GUI with instant reconfiguration without a reboot, includes useful installation tools (site survey, delayed reboot, spectrum analyzer, ping, traceroute) and is compatible with our standalone and cloud based Wireless Network Management System (WNMS) - one of the most advanced management tools on the market.



The APC Propeller has a unique manual antenna characteristics adjustment, which allows using the device with a horizontal orientation for client mode. This greatly reduces interference, as the main noise source is on the azimuth. Alignment is easy as only left and right movement of the device is necessary (no need to move it upwards or downwards as the antenna angle on the elevation is wide).







Product/ distance recomendation	PTMP mode	PTP mode	PTP mode (full capacity)
APC Propeller 5	8 km/ 4.97 mi	13 km/ 8.08 mi	1.5 km/ 0.93 mi

Wireless

WLAN standard IEEE 802.11 a/n, iPoll (proprietary)

Radio mode MIMO 2x2

Operating modes Access point (auto WDS), Station, Station WDS, iPoll Access Point, iPoll Station, repeater

Radio frequency band 5.1 - 5.9 GHz (country dependent - FCC 5.745 to 5.825 GHz)

Transmit power Up to 28 dBm (country dependent)

Receive sensitivity Varying between -96 and -78 dBm depending on modulation

Channel size 20, 40 MHz

Modulation schemes 802.11 a/n: OFDM (64-QAM, 16-QAM, QPSK, BPSK)
Data rates 802.11 n: 300, 270, 240, 180, 120, 90, 60, 30 Mbps

802.11 a: 54, 48, 36, 24, 18, 12, 9, 6 Mbps

Error correction FEC, Selective ARQ
Duplexing scheme Time division duplex

- -	802.11 N/ iPoll	15 Mbps	30 Mbps	45 Mbps	60 Mbps	90 Mbps	120 Mbps	135 Mbps	150 Mbps
		-95	-93	-90	-87	-84	-80	-78	-78
		30 Mbps	60 Mbps	90 Mbps	120 Mbps	180 Mbps	240 Mbps	270 Mbps	300 Mbps
		-95	-93	-90	-87	-84	-80	-78	-78
Rec tiv	902 44 6	6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
	802.11a	-96	-95	-94	-92	-89	-86	-81	-80
Output power (dBm - combined)	802.11 N/ iPoll	15 Mbps	30 Mbps	45 Mbps	60 Mbps	90 Mbps	120 Mbps	135 Mbps	150 Mbps
		27	28	28	28	25	24	23	23
		30 Mbps	60 Mbps	90 Mbps	120 Mbps	180 Mbps	240 Mbps	270 Mbps	300 Mbps
		27	28	28	28	25	24	23	23
	802.11a	6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
		27	28	28	28	26	25	24	23

Antenna

Type Integrated directional dual - polarized panel

Gain 15 dBi

Wired

Interface 10/100 Base-T, RJ45, USB

Networking

Operating modes Bridge, Router

WAN Static IP, DHCP client, PPPoE client

NAT Routing w/ or w/o NAT

Static routing Supported

DHCP Client, Server, Relay

Port forwarding Supported

VLAN Supported for management and data

Wireless security WEP, WPA/WPA2 Personal, WPA/WPA2 Enterprise, WMM, WACL

User isolation Supported







Softwave

Wireless security

General Ability to define/limit frequency, channel width, EIRP, modulation

Advanced wireless functionality ATPC (automatic transmit power control), auto-channel, auto-modulation

Operating mode Router, bridge

Wireless operating modes AP auto WDS, Station, Station WDS, Virtual radios (VSSID), iPoll access point, iPoll client, repeater

WPA/WPA2 personal, WPA/WPA2 enterprise, WACL, user isolation, UAM (web

H Pol

portal authentication)

Wireless QoS WMM

WAN protocols Static IP, DHCP client, PPPoE client

Network NAT, static routing, firewall, port forwarding, VLAN, traffic shaping

DHCP server, SNMP server, NTP client, alerts, remote syslog, wireless and ethernet statistics, bandwidth limiting Services

Management HTTP(S) GUI, SSH CLI, SNMP read, WNMS, troubleshooting file, reset via reset tool

Tools Site survey, link test, ping, traceroute, spectrum analyzer, delayed reboot

Physical

Length 175 mm (6.89 "), width 65 mm (2.56 "), height 29 mm (1.14 ") **Dimensions**

Weight 94 g (3.32 oz)

Power supply 12 - 24 VDC passive PoE (18 V passive PoE adapter is included in the package)

100 - 240 VAC Power source

V Pol

5 W Power consumption (max)

Environmental

-40°C (-22 F) ~ +65°C (+149 F) Operating temperature Humidity 0 ~ 90 % (non-condensing)

Management

System configuration User-friendly web GUI, Command line via SSH, centralized Wireless Network

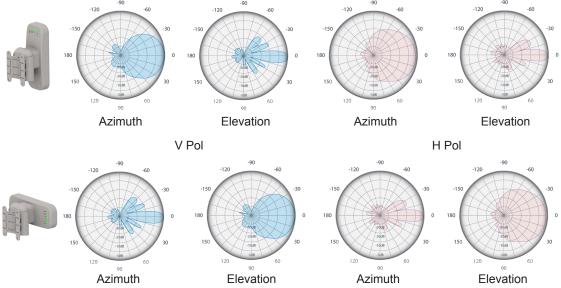
Management System, reset via reset tool

System monitoring SNMP v1/2c/3 server, Syslogs, system alerts via e-mail and SNMP trap

Regulatory

Certification FCC/CE/Safety/RoHS compliance

Antenna specifications



Frequency range	5.1 - 5.9 GHz
Gain	15 dBi
Polarization	Dual linear
Cross-pol Isolation	30 dBi
VSWR	<1.4
Azimuth beamwidth (H pol)	60 deg
Azimuth beamwidth (V pol)	60 deg
Elevation beamwidth	15 deg

Frequency range	5.1 - 5.9 GHz
Gain	15 dBi
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Cross-pol Isolation	30 dBi
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Azimuth beamwidth (H pol)	15 deg
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www.deliberant.com

