



The APC 5M is a versatile, very efficient, and stable 5 GHz access point. This product is equipped with an extreme output power (up to 29 dBm) 802.11n MIMO radio wrapped securely inside a robust IP-65 compliant enclosure with two N-type connectors, suited for wide coverage area applications. The robust hardware is coupled with an advanced and feature-rich operating system optimized for high performance communications which allows compatibility with older 802.11a standards while adding support for the latest in wireless communications. The APC 5M supports access point, station, and WDS operating modes and

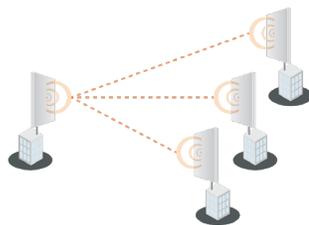
can act as bridge or as router making it one of the most flexible devices on the market.

The robust software engine running on the APC 5M provides a user-friendly Adobe Flex - based GUI with instant changes, includes useful installation tools (Site survey, Antenna alignment, Delayed reboot) and also is compatible with Wireless Network Management System for one of the most advanced management tools on the market.

## Usage examples

### PTMP

Deliberant APC 5M is an ideal device for point-to-multiple point applications as a base-station with and external sector or omni-directional antenna.



### PTP

APC 5M is a great device for medium long range point-to-point applications with an external high-gain dual polarized antenna (panel or dish).



Product/ distance recommendation	PTMP mode	PTP mode	PTP mode (full capacity)
APC 5M	Antenna dependent	Antenna dependent	Antenna dependent

## Wireless

WLAN standard	IEEE 802.11 a/n
Radio mode	MIMO 2x2
Operating modes	Access point, Access point WDS, Client, Client WDS
Radio frequency band	5 GHz
Transmit power	Up to 29 dBm
Receive sensitivity	Varying between -94 and -70 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, STBC
Duplexing scheme	Time division duplex

Receive sensitivity (dBm)	802.11 N/ iPoll	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
		-93	-91	-89	-86	-83	-79	-77	-75
		MCS8	MCS9	MCS10	MCS11	MCS12	MCS13	MCS14	MCS15
	-93	-91	-89	-86	-83	-79	-77	-75	
802.11a	6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps	
	-95	-94	-92	-90	-87	-84	-79	-77	

Output power (dBm)	802.11 N/ iPoll	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
		29	29	29	29	28	28	27	27
		MCS8	MCS9	MCS10	MCS11	MCS12	MCS13	MCS14	MCS15
	29	29	29	29	28	28	27	27	
802.11a	6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps	
	29	29	29	29	28	28	27	25	

## Antenna

Type	N-connectors for external antenna
Gain	Antenna dependent

## Wired

Interface	10/100 Base-T, RJ45
Built-in surge protection	Yes

## 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

## Security

Wireless security	WEP, WPA/WPA2 Personal, WPA/WPA2 Enterprise, WMM, WACL
User isolation	Supported

## Software

General	Ability to define/limit frequency, channel width, EIRP, modulation All configurations are instant changes
Operating mode	Router, Bridge
Wireless operating modes	AP, Station, AP WDS, Station WDS, Virtual radios (VSSID)
Wireless security	WPA/WPA2 Personal, WPA/WPA2 Enterprise, WACL, User isolation
Wireless QoS	WMM
WAN protocols	Static IP, DHCP client, PPPoE client
Network	NAT, static routing, firewall, port forwarding, VLAN
Services	DHCP server, SNMP server, NTP client, Alerts, Remote syslog, Wireless and Ethernet statistics, bandwidth limiting
Management	HTTP(S) GUI, SSH CLI, SNMP read, WNMS, troubleshooting file, reset via ICMP
Tools	Site survey, Link test, Antenna alignment, Ping, Traceroute, Spectrum analyzer

## Physical

Dimensions	Length 150 mm (5.9 "), width 115 mm (4.5 "), height 55 mm (2.1 ")
Weight	400 g (16.2 oz)
Power supply	12 - 48 V DC passive PoE
Power source	100 – 240 VAC via included adapter
Power consumption	6.5 W

## Environmental

Operating temperature	-20°C (-4 F) ~ +55°C (+131 F)
Humidity	0 ~ 90 % (non-condensing)

## Management

System configuration	User-friendly web GUI, Command line via SSH, centralized Wireless Network Management System, reset to defaults via special ICMP packet
System monitoring	SNMP v1/2c/3 server, Syslogs, system alerts via e-mail and SNMP trap

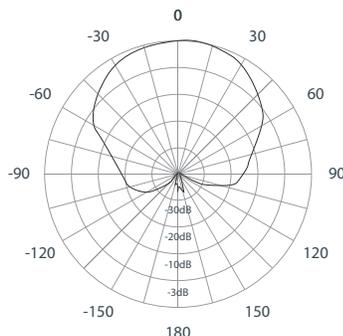
## Regulatory

Certification	FCC/CE (*pending)
Safety	RoHS compliant

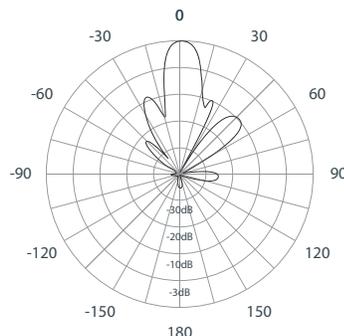
## Antenna specifications

### Recommended with our sector antenna: DLB5-17-60

Horizontal pane:



Vertical pane:



- Gain: 17 dBi
- Horizontal beamwidth: 65°
- Vertical beamwidth: 10°
- VSWR: ≤ 2
- Connectors: N female
- Isolation: ≥28 dB
- F/B ratio: ≥23 dB



\*Note: This product has not been authorized by the rules of the Federal Communications Commission. This product may not be sold or leased, or offered for sale or lease, in the United States, until authorization has been obtained.



[www.deliberant.com](http://www.deliberant.com)

Copyright © 2011 Deliberant LLC. All rights reserved. Deliberant, the Deliberant logo, are trademarks of Deliberant LLC. All other company and product names may be trademarks of their respective companies. While every effort is made to ensure the information given is accurate, Deliberant does not accept liability for any errors or mistakes which may arise. Specifications and other information in this document may be subject to change without notice.



To learn more about Deliberant products, visit [www.deliberant.com](http://www.deliberant.com).