

The APC 2S-20 presents a 2.4GHz CPE product with superior performance building long distance links. This product is equipped with an extreme output power (up to 31 dBm) 802.11n radio that was created with a unique hardware design and coupled with a reliable, feature-rich operating system. This device also has a robust, IP-65 compliant enclosure which is combined with a high-gain grid antenna, and emits EIRP up to 125 W. The APC 2S-20 is generally designed for CPE applications but can also act as an access point thus allowing point to point network

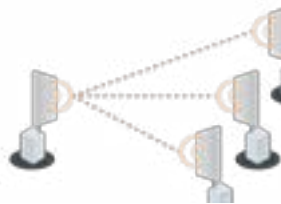
applications.

The included, robust software engine allows the APC 2S-20 to work as bridge or as a router, provides a user-friendly Adobe Flex - based GUI with instant changes, includes useful installation tools (Site survey, Antenna alignment, Delayed reboot, Spectrum analyzer, ping, traceroute) 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 2S-20 is an ideal device for point-to-multiple point applications as a medium to long range client device.



### PTP

APC 2S-20 is a great device for medium to long range point-to-point applications.



Product/ distance recomendation	PTMP mode	PTP mode	PTP mode (full capacity)
APC 2S-20	15 km/ 9.32 mi	40 km/ 24.86 mi	7 km/ 4.35 mi

## Wireless

WLAN standard	IEEE 802.11 b/g/n, iPoll (proprietary)
Radio mode	SiSo 1x1
Operating modes	Access point (auto WDS), Station, Station WDS, iPoll Access Point, iPoll Station
Radio frequency band	2.4 GHz
Transmit power	Up to 31 dBm (country dependent)
Receive sensitivity	Varying between -95 and -75 dBm depending on modulation
Channel size	20, 40 MHz
Modulation schemes	802.11 g/n: OFDM (64-QAM, 16-QAM, QPSK, BPSK) 802.11 b: DSS (CCK, DQPSK, DBPSK)
Data rates	802.11 n: 150, 135, 120, 90, 60, 30 Mbps 802.11 g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps 802.11 b: 11, 5.5, 2, 1 Mbps
Error correction	FEC, Selective ARQ
Duplexing scheme	Time division duplex

Receive sensitivity (dBm)	802.11N/iPoll	15 Mbps	30 Mbps	45 Mbps	60 Mbps	90 Mbps	120 Mbps	135 Mbps	150 Mbps
		-94	-91	-89	-86	-83	-78	-77	-75
	802.11g	6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
		-95	-94	-92	-90	-88	-84	-80	-78
802.11b	1 Mbps	2 Mbps	5.5 Mbps	11 Mbps	-	-	-	-	-
		-95	-95	-95	-93	-	-	-	-

Output power (dBm)	802.11N/iPoll	15 Mbps	30 Mbps	45 Mbps	60 Mbps	90 Mbps	120 Mbps	135 Mbps	150 Mbps
		30	30	30	30	28	28	28	26
	802.11g	6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
		31	31	31	31	31	31	29	29
802.11b	1 Mbps	2 Mbps	5.5 Mbps	11 Mbps	-	-	-	-	-
		27	27	27	27	-	-	-	-

## Antenna

Type	Integrated high-gain grid antenna
Gain	20 dBi

## Wired

Interface	10/100 Base-T, RJ45
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## 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

## Softwave

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
Wireless security	WPA/WPA2 Personal, WPA/WPA2 Enterprise, WACL, User isolation, UAM (web portal authentication)
Wireless QoS	WMM
WAN protocols	Static IP, DHCP client, PPPoE client
Network	NAT, static routing, firewall, port forwarding, VLAN, traffic shaping
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 reset tool
Tools	Site survey, Link test, Antenna alignment, Ping, Traceroute, Spectrum analyzer, delayed reboot

## Physical

Dimensions of grid reflector	Length 430 mm (16.93 "), width 640 mm (25.2 "), height 130 mm (5.12 ")
Length of antenna feed	640 mm (25.2 ")
Weight	2.2 kg (77.6 oz)
Power supply	12 - 24 V DC passive PoE
Power source	100 – 240 VAC via included adapter

## Environmental

Power consumption	4.5 W
Operating temperature	-40°C (-22 F) ~ +65°C (+149 F)
Humidity	0 ~ 90 % (non-condensing)

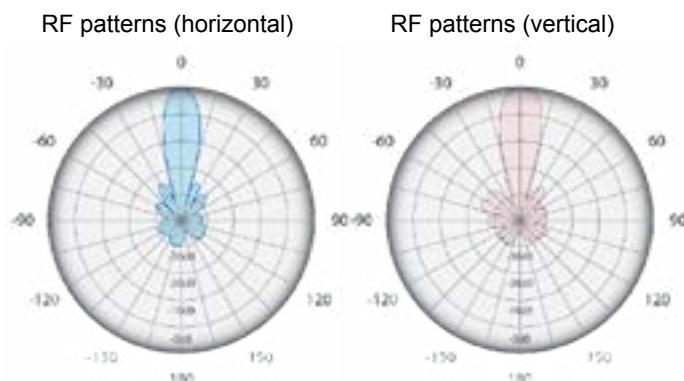
## Management

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
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## Antenna specifications



<b>Frequency range</b>	2.4 - 2.5 GHz
<b>Gain</b>	20 dBi
<b>Polarization</b>	Single linear
<b>Max VSWR</b>	1.7:1
<b>Beamwidth</b>	16 deg
<b>Elevation Beamwidth</b>	17 deg



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