

IP-NET™ Wireless Cable Access Point

Modelo

CAP-300



El IP-NET Cable Access Point CAP300™ es una unidad diseñada específicamente para permitir al cable operador entrar al lucrativo mercado de servicios inalámbricos. El CAP 300™ es un sistema modular compuesto por tres módulos intercambiables; el modulo de red, el modulo inalámbrico, y el modulo de energía.

Aplicaciones:

- Acceso móvil a Internet
- Servicio Inalámbrico en zonas públicas, centros comerciales, parques, playas, piscinas, etc.
- Telefonía inalámbrica con SIP & WiFi
- Cobertura de hoteles y centros de convenciones
- Cobertura de Parques Industriales y zonas comerciales

Características

- MODEM RF Universal compatible con DOCSIS 1.0, DOCSIS 1.1, DOCSIS 2.0 y UltraBand™.
- Downstream 64QAM/256QAM / Upstream QPSK/16QAM.
- Configurable para alimentación desde power extracting tap vía par trenzado o coaxial, final de línea ó en-línea
- Opciones de entrada de red mediante Fibra Óptica, xDSL, y PLC.
- Configuraciones como Punto de Acceso, Puente Punto a Punto, Puente Punto a Multi-Punto, Repetidor, o un Cliente Inalámbrico.
- Seguridad WPA (WiFi Protected Access), 802.1x/RADIUS, Control de Acceso de direcciones MAC, Wired Equivalent Privacy (WEP) de 64-128 152 bits.
- Gestionamiento mediante SNMP v 3.0 y vía web con Internet Explorer v6, Netscape Navigator v6 y otros.
- Rango hasta 100 metros en el interior y 400 metros en el exterior.
- Salida Inalámbrica 802.11g compatible con 802.11b. Opciones 802.11a, Bluetooth 1.1, 802.16 WiMax, y GPRS

Especificaciones

Standards	Receiver Sensitivity	Cable PHY Downstream
<ul style="list-style-type: none"> • IEEE 802.11g • IEEE 802.11b • IEEE 802.11 • IEEE 802.3 • IEEE 802.3u 	<ul style="list-style-type: none"> • 54Mbps OFDM, 10% PER, -66dBm) • 48Mbps OFDM, 10% PER, -71dBm) • 36Mbps OFDM, 10% PER, -76dBm) • 24Mbps OFDM, 10% PER, -80dBm) • 18Mbps OFDM, 10% PER, -83dBm) • 12Mbps OFDM, 10% PER, -85dBm) • 11Mbps CCK, 8% PER, -83dBm) • 9Mbps OFDM, 10% PER, -86dBm) • 6Mbps OFDM, 10% PER, -87dBm) • 2Mbps QPSK, 8% PER, -89dBm) 	<ul style="list-style-type: none"> • 10-bit A/D • Direct IF sampling at 44 and 36 MHz • QPSK/16/32/64/128/256 QAM • Programmable equalization • Annex A, B and C FEC
Device Management	Antenna Options (Note 3)	Cable PHY Upstream
<ul style="list-style-type: none"> • Web-Based – Internet Explorer v6 or later; Netscape Navigator v6 or later; or other Java- enabled browsers. • SNMP v.3 	<ul style="list-style-type: none"> • 8, 12, 15 dBi VPol OmniDirectional • 90 degree 9 or 17 dBi VPol sector • 120 degree 9 or 16 dBi VPol sector • 180 degree 14 dBi VPol sector • 35 degrees 19 dBi Flat Panel • 30 degree 14 dBi V or HPol Yagi Tight Beam • 120 degree VPol Tri-Sector 15 dBi (Note 4) 	<ul style="list-style-type: none"> • 11-bit D/A • A-TDMA • S-CDMA with Turbo Trellis coding • QPSK/8/16/32/64/128 QAM Burst Mod. • Programmable pre-equalization
Wireless Distribution System	LEDs	Cable MAC Network Processor
<ul style="list-style-type: none"> • AP Client • PtP Bridge • PtMP Bridge • Repeater 	<ul style="list-style-type: none"> • Power • LAN (10/100) • WLAN (Wireless Connection) 	<ul style="list-style-type: none"> • Software Programmable • DOCSIS 2.0/1.1/1.0 compliant • EuroDOCSIS 2.0/1.1/1.0 compliant • UltraBand compliant
Security	Temperature	<ul style="list-style-type: none"> • DVB compliant • Fixed Wireless compliant • Two PHS engines • Internal 64KB data memory • Internal 128KB Instruction memory • Three 56-bit DES/CRC engines • PID, SID, DA/SA, MAC, IP & LLC filtering
<ul style="list-style-type: none"> • 64-, 128 152-bit WEP • 802.1X (EAP-MD5, EAP-TLS, EAP-TTLS and EAP-PEAP) • WPA —Wi-Fi Protected Access • MAC Address Access Control (WPA-TKIP and WPA-AES) 	<ul style="list-style-type: none"> • Operating: -40 to +140C (-40 to +60 F) 	
Media Access Control	Humidity	Processing Power
CSMA/CA with ACK	95% maximum (non-condensing)	500 MIPS
Wireless Frequency Range	Power Input	Miscellaneous Functions
2.4GHz to 2.4835GHz	40-90 VAC Quasi-Square Wave	<ul style="list-style-type: none"> • Watchdog timer • Four additional timers • Interrupt controller
Wireless Operating Range (Note 2)	Weight	Downstream RF Levels
Indoors: Up to 328 ft (100 meters)	8 Kg (18.25 lbs.)	-15dBmV ~ +15dBmV
Outdoors: Up to 1312 ft (400 meters)	Dimensions	Minus 2-way, DC-8, or DC-12 if IN-LINE
Wireless Modulation Technology	<ul style="list-style-type: none"> • Height = 17.15 cm (6.75 in.) • Width = 36.2 cm (14.25 in.) • Depth = 22.66 cm (9 in.) 	0-10 dB input plug-in pad
<ul style="list-style-type: none"> • Orthogonal Frequency Division Multiplexing (OFDM) • Complementary Code Keying (CCK) • DQPSK • DBPSK 	Configuration Options	Upstream RF Levels
Wireless Transmit Power(Note 1 & 3)	Hardline IN-LINE	+8dBmV ~ + 58dBmV(QPSK)
15dBm (32mW) ± 2dB	Hardline END-OFLINE	+8dBmV ~ + 55dBmV(16QAM)
(Control TX power level from full, 50%, 25%, 125% and min.)	1 Amp Coax Power Extracting Tap	+8dBmV ~ +54dBmV (32/64QAM)
Notes	1 Amp Twisted Pair Power Extracting Tap	+8dBmV ~ +53dBmV (S-CDMA)
<p>1.- Maximum wireless signal rate derived from IEEE Standard 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors lower actual wireless data throughput rate.</p> <p>2.- Environmental conditions may adversely affect wireless signal range. Range Subject to CAP and CPE Antenna Options</p> <p>3.- Local & International Laws may define maximum allowable radiated power levels.</p> <p>4.- Sector Antennae are only available for CAPS equipped with Multi Access Point Option</p>		Minus 2-way, DC-8, or DC-12 if IN-LINE
		0-10 dB input plug-in pad

Vertically Polarized Antennas

2400 to 2485 MHz Operation

Features

- 9 and 12 dB Antenna Gain
- Type N Female Integrated Bulkhead Connector
- Rugged, Lightweight and Waterproof

Description

The IP-NET Wireless antennae systems are constructed of UV-stable fiberglass with all stainless steel brackets standard. They come standard with Type N female bulkhead connectors with extra heavy duty nuts for optional standoff type mounting. The 12dBi has a 3 Deg Electrical Downtilt standard. It also has 24" pigtail option with N Female or N Male connectors for direct connection to the CAP300. The 9dBi is available with 0 degree electrical downtilt and 7 degree electrical downtilt which is perfect for close-in wireless systems such as apartment complexes. Their unique high performance design eliminates nulls.

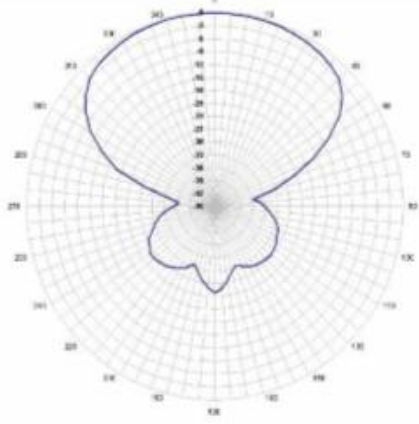
Specifications

Parameter	Min	Typ	Max	Units
Frequency Range	2400		2485	MHz
Input Return Loss (S11)		-14		dB
VSWR		1.5:1		
Impedance		50		OHM
Input Power			100	W
Pole Diameter (OD)	1		2	inch
	25		50	mm
Operating Temperature	-40		+70	Deg C

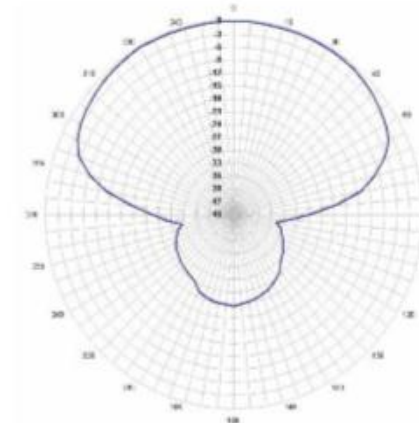
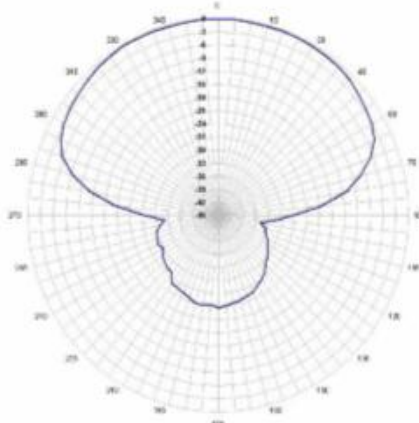
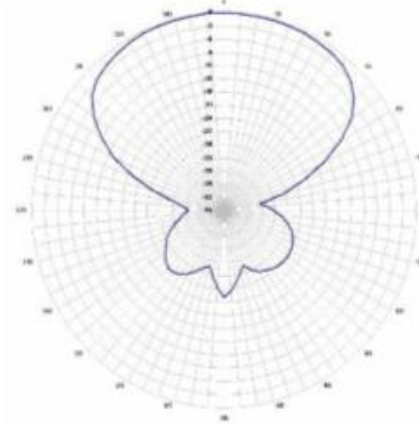


Opciones y Patrones de Antenas

SA24-90-9

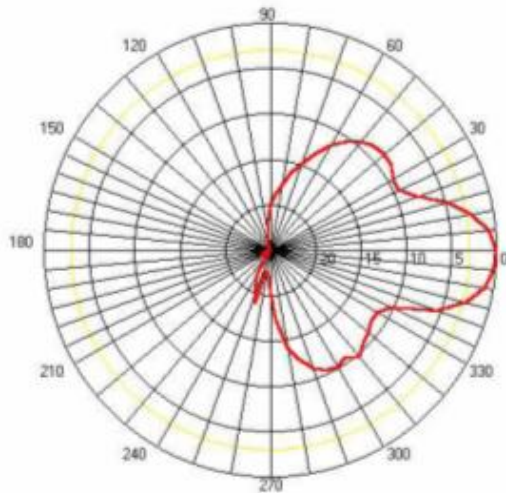


SA24-90-17



SA24-120-9

SA24-120-16



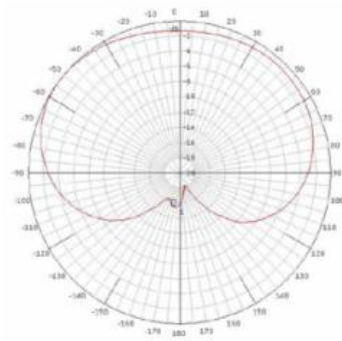
ES24-14 H Plane



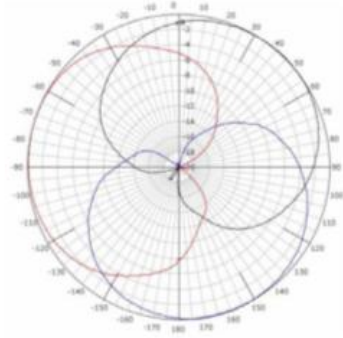
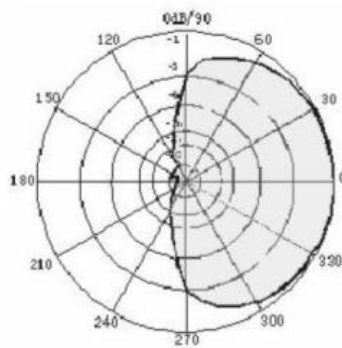
*Picture shown with standard pole mount bracket

Opciones y Patrones de Antenas

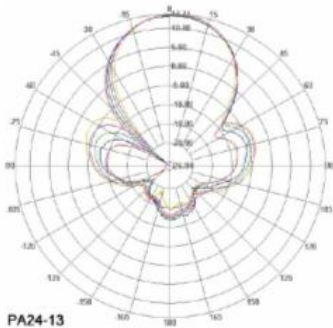
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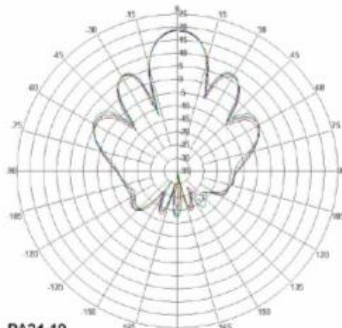
SA24-180-14



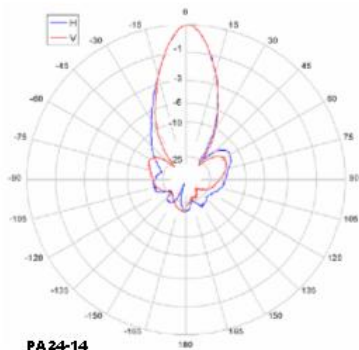
S024-120x3-18



PA24-13



PA24-19



PA24-14

