Datasheet

C-100

Dual radio 2x2:2 MU-MIMO 802.11ac Wave 2 access point

Key Specifications

- Up to 300 Mbps for 2.4 GHz radio
- Up to 867 Mbps for 5 GHz radio
- 802.11ac Wave 2 support
- 2x2 MU-MIMO with two spatial streams per radio
- Four integrated omnidirectional antennas
- 20/40/80 MHz channel width support
- 2x Gigabit Ethernet port
- Full operational capacity with 802.3af PoE

Top Performance at the Best Price

The Mojo C-100 is an enterprise-grade 2x2 MU-MIMO dual radio 802.11ac access point with dual concurrent 5 GHz and 2.4 GHz band radios supporting 802.11a/n/ac Wave 2, 802.11b/g/n, two spatial streams, and data rates of up to 867 Mbps and 300 Mbps, respectively.

Why Choose the C-100?

The C-100 provides the best value amongst high-performing, modern access points designed for cost-conscious organizations. Built using the latest 802.11ac Wave 2 chipsets, the C-100 is perfect for medium density environments looking for the high performance and advanced features of current access points without the high cost. Common deployment scenarios include small and medium schools, distributed remote offices, small meeting rooms, and enterprise campuses.

The C-100 provides access to advanced access point features like role-based firewalls and application visibility without the high cost typically associated with Wave 2 devices. The C-100 is also a perfect fit for organizations in need of future-ready dedicated security sensors.

Mojo Cloud Managed WiFi

The C-100 is managed by the Mojo cloud and leverages a purpose-built cloud architecture to produce enterprise-grade wireless networks for every application required, ensuring high reliability through an approach that is automated, scalable, secure and cost effective.

Key Features

- 100% controller-free
- Zero-touch deployment through automatic cloud activation and configuration
- Support for up to eight distinct SSIDs per radio
- Integrated layer 2 and application firewall, per-user bandwidth controls, and QoS per SSID
- Dynamic RF optimization through smart steering, band steering and optimal channel selection
- Automated device access logging
- Non-WiFi VLAN monitoring for extended rogue access point detection
- Third party analytics integration for real- time data transfer
- Self-healing wireless mesh networking

What Really Matters

The future of WiFi requires intelligent, self-reliant access points that support high-performing, highly reliable networks without the need of antiquated controllers. This approach removes the complexity, instability and high costs associated to enterprise WiFi today.

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Access

The C-100 creates WiFi networks that require less time and resources to deploy and maintain compared to traditional devices, resulting in significant cost savings.

- Mojo access points take less than two minutes to activate and configure after connecting to the cloud
- Support for up to eight individual SSID's per radio allows for maximum flexibility in network design
- Network controls like NAT, Firewall and QoS occur at the access point level, ensuring faster and more reliable networks
- Persistent scanning through background scanning of all 802.11 channels increases insight and data to assist in RF optimization and client handling
- Smart steering addresses sticky client issues by automatically pushing clients with low speeds to a closer access point
- Band steering manages channel occupancy, pushing clients to the 5GHz channel for optimal throughput
- Access points continue to broadcast and support wireless networks even if their connection with the cloud is interrupted

Security

The C-100 offers complete visibility and control of the wireless airspace that keeps the integrity of the network in check and actively protects users without manual intervention.

- Every Mojo access point is equipped with the industry's only fully integrated wireless intrusion prevention capabilities
- Runs complete spectrum scans while simultaneously serving wireless clients through background scanning
- Mojo's patented Marker Packets™ are used to accurately detect access points on any network with the fewest false positives in the industry
- VLAN monitoring enables a virtual connection to non-WiFi networks for complete network rogue detection and prevention
- Automatic prevention combines over-the-wire and over-the-air techniques to keep unauthorized clients off the network and authorized clients on it
- Access points continue to scan for wireless threats and enforce security policy even if their connection with the cloud is interrupted

Engagement

The C-100 collects massive amounts of data and supports immersive guest network experiences that develops and reinforces the relationship between them and the brand.

- Persistent scanning of all 802.11 channels results in a comprehensive list of active wireless clients across the enterprise
- Choice statistics like location, duration, distance from access point and time of day are stored locally for every active wireless client
- Choice statistics like session duration, total data transfer up and down, data rate, smart device type and top-level domain are stored locally for every active connection
- Real-time notifications sent to third party systems that alert to the presence of enrolled devices
- Enables proximity marketing programs that trigger when certain devices are present
- Triggers automatic messaging via MMS, in-browser notifications and more

Physical Specifications

Front View

Property	Specification
Physical Dimensions	148mm X 148mm X 33mm
Weight	237g (0.522 lb)
Operating Temperature	0°C – 45°C (32°F – 113°F)
Storage Temperature	-20°C – 65°C (-4°F – 149°F)
Humidity	5%-95% non-condensing
Processor RAM	Qualcomm IPQ4028 717 MHz quad-core ARM processor with 256 MB RAM and 64 MB Flash

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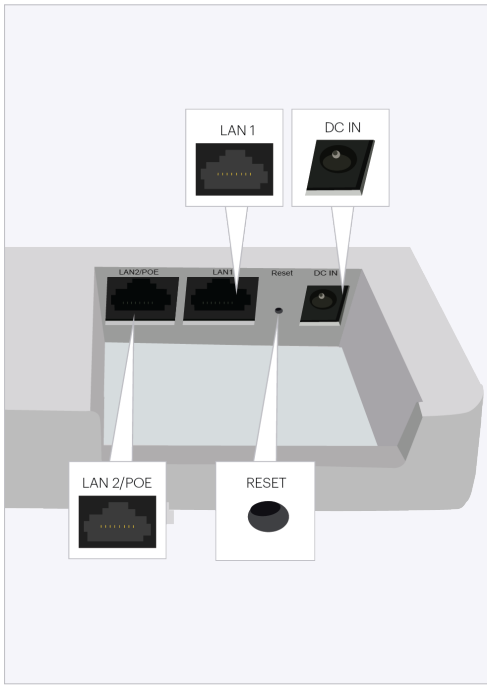

Port	Description	Connector Type	Speed/Protocol
Power	12V DC/802.3af (PoE)	5.5mm overall diameter/2.1mm center pin/hole	N/A
Reset	Reset to factory default settings	Pin hole push button	Hold down and power cycle the device to reset
LAN1	Gigabit Ethernet port that can be used for wired extension for an SSID.	RJ-45	10/100/1000 Mbps Gigabit Ethernet
LAN2/ PoE	Gigabit Ethernet port used to connect to the wired LAN and communicate with the Mojo Cloud or Server. This port can also be used to power the device using the 802.3af (PoE) standard.	RJ-45	10/100/1000 Mbps Gigabit Ethernet 802.3af Class 0 PoE PoE input voltage: 48V

Wi-Fi Specifications

Frequency, Modulation, and Data Rates

IEEE 802.11b/g/n			
Frequency Band	Scanning	Transmission	
	All regions	USA & Canada (FCC/IC)	Europe (ETSI)
	2400 ~ 2483.5 MHz	2400 ~ 2473.5 MHz	2400 ~ 2483.5 MHz
Modulation Type	DSSS, OFDM		
Peak Data Rates	Up to 300 Mbps (MCS 0-15)		
Antenna	Integrated modular high efficiency PIFA antenna x4 (2 per band)		

IEEE 802.11a/n/ac			
Frequency Band	Scanning	Transmission	
	All regions	USA & Canada (FCC/IC)	Europe (ETSI)
	4.92 ~ 5.08 GHz 5.15 ~ 5.25 GHz 5.25 ~ 5.35 GHz 5.47 ~ 5.725 GHz 5.725 ~ 5.825 GHz	5.15 ~ 5.25 GHz 5.25 ~ 5.35 GHz 5.725 ~ 5.825 GHz	5.15 ~ 5.25 GHz 5.25 ~ 5.35 GHz 5.47 ~ 5.725 GHz
Dynamic Frequency Selection	DFS and DFS2		
Modulation Type	OFDM		
Peak Data Rates	Up to 867 Mbps (MCS 0-15)		
Antenna	Integrated modular high efficiency PIFA antenna x4 (2 per band)		

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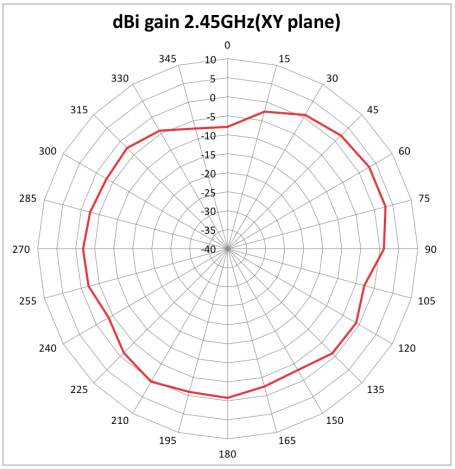
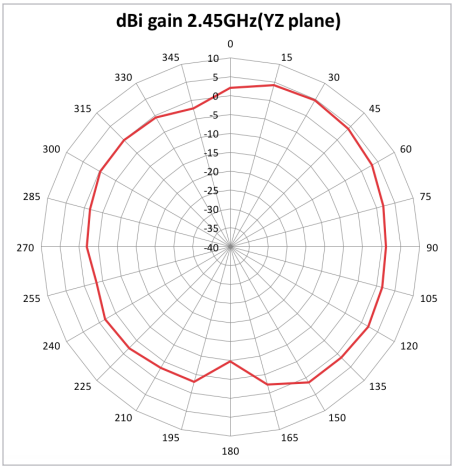
Technical Specifications

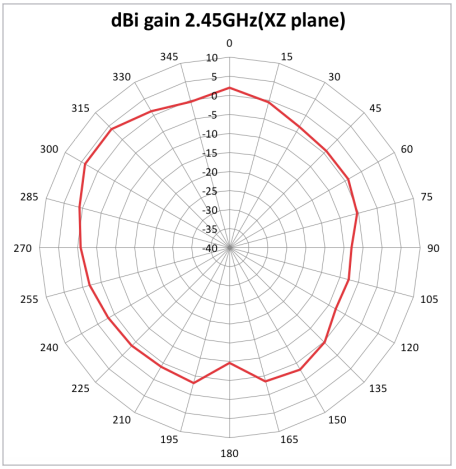
Physical Specifications	
Antenna	Internal PIFA 2x2.4 GHz (2.5 dBi peak gain) 2x5 GHz (3.5 dBi peak gain)
Ethernet Ports	2 Gigabit Ethernet ports with RJ45 connector type. One port to connect to the wired LAN and communicate with the Mojo Cloud or Server. This port can also be used to power the device using the 802.3af Power over Ethernet(PoE). Second port can be used for aggregation or wired extension of an SSID
Reset	Pinhole push button
LEDs	Power, LAN1, LAN2, 5 GHz, 2.4 GHz
Operational Specifications	
Input Power	12V DC/1.5A (5.5mm overall diameter/2.1mm center pin/hole)/802.3af (PoE)
Number of Radios	2 radios; One 2.4 GHz and 5 GHz radio each for simultaneous dual band client access.
Max Clients Supported	512 clients per radio *dependent upon use cases
MIMO	2x2 for 2.4/5GHz Radios
Number of Spatial Streams	2 for 2.4/5GHz Radios
RF Transmit Power	20 dBm per radio chain (max); Actual power for Tx will depend on Country Regulatory Domain
Simultaneous MU-MIMO Clients	Two 1x1 MU-MIMO clients
Users in a MU-MIMO group with a 2x2 client	1
Bandwidth Agility	Yes
Frequency Bands	2.4-2.4835 GHz, 4.9-5.0 GHz, 5.15-5.25 GHz (UNII-1), 5.25-5.35 GHz, 5.47-5.6 GHz, 5.650-5.725 GHz (UNII-2), 5.725-5.85 GHz (UNII-3)
Dynamic Frequency Selection	Supported in compliance to all latest amendments from FCC, CE, IC, CB, TELEC, KCC regarding certifications.

Internal Antenna Radiation Patterns

2 GHz Antenna







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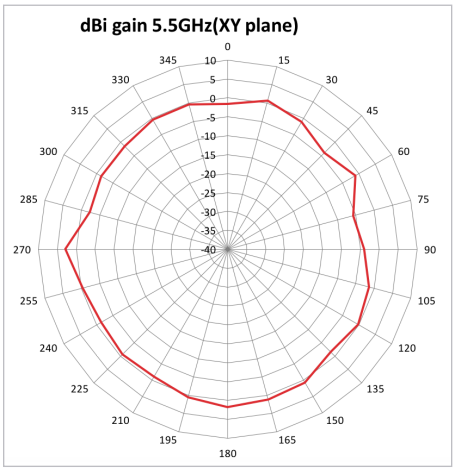
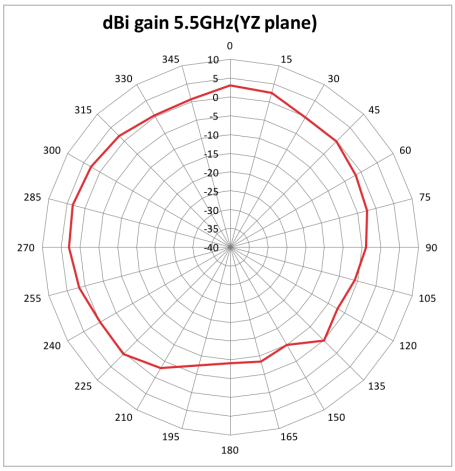
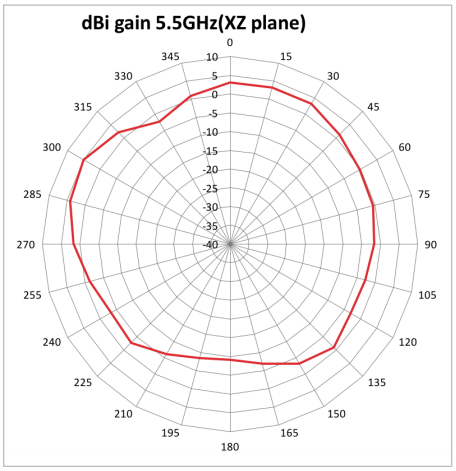
5 GHz Antenna







Maximum Aggregate Transmit Power

For 2.4 GHz

MCS Index	Transmit Power(dBm)
802.11b	
1 Mbps	21
11 Mbps	20
802.11g	
6 Mbps	21
54 Mbps	18
802.11n HT20	
MCS 0	21
MCS 7	18
802.11n HT40	
MCS 0	20
MCS 7	18

Note:
The actual transmit power will be the lowest of:

- Value specified in the Device Template
- Maximum value allowed in the regulatory domain
- Maximum power supported by the radio

For 5 GHz

MCS Index	Transmit Power(dBm)
802.11a	
6 Mbps	21
54 Mbps	19
802.11n HT20	
MCS 0	21
MCS 7	19
802.11n HT40	
MCS 0	20
MCS 7	18
802.11ac VHT80	
MCS 0	20
MCS 7	18
MCS 8	17
MCS 9	16

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Country-Wise Max Transmit Powers (dBm)

Countries	2.4 GHz	5 GHz
Australia	20	23
Canada	30	23
India	20	20
Israel	20	20
Japan	20	20
UAE	20	17
USA	20	23

Receive Sensitivity

For 2.4 GHz

MCS Index	Receive Sensitivity (dBm)
802.11g	
6 Mbps	-95
54 Mbps	-77
802.11n HT20	
MCS 0	-94
MCS 7	-74
802.11n HT40	
MCS 0	-92
MCS 7	-71

For 5 GHz

MCS Index	Receive Sensitivity (dBm)
802.11a	
6 Mbps	-93
54 Mbps	-76
802.11n HT20	
MCS 0	-93
MCS 7	-73
802.11n HT40	
MCS 0	-89
MCS 7	-71
802.11ac HT20	
MCS 8	-68
802.11ac HT40	
MCS 9	-64
802.11ac HT80	
MCS 9	-61

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Regulatory Specifications

RF and Electromagnetic

Country	Certification
USA	FCC Part 15.247, 15.407
Canada	IC
Europe	CE EN300.328, EN301.893 Countries covered under Europe certification: Austria, Belgium, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Iceland, Luxembourg, Latvia, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Slovakia, Slovenia, Switzerland, The Czech Republic, UK.

Safety

Country	Certification
USA	UL 60950
Canada	cUL 60950
European Union (EU)	EN 60950, RoHS

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About Mojo Networks, Inc.
Mojo Networks is redefining the modern WiFi platform. Imagine the scalability to set up millions of access points with a few clicks, all from your smartphone. Envision an Internet experience that engages users with your business to drive results. Stay secure on the same WiFi cloud powering major brands and the highest levels of government. And enjoy the cost savings of a cloud-first solution without the pricey markup of proprietary hardware. Welcome to the era of prolific connectivity. Founded in 2003, Mojo Networks (formerly known as AirTight Networks), serves customers in the Fortune 500, Global 2000 and large carriers around the world. Request a free demo of Mojo Cloud Managed WiFi Platform at **www.mojonetworks.com**

Ordering Information

Access Point

Part Number	Description
C-100-CLD-xYR	C100 2x2:2 dual radio 802.11ac wave-2 access point with internal antennas and "X" Year enterprise cloud subscription and support

Power Options

Part Number	Description
PI	One-port 802.3af PoE injector C65, W68, C75, C75E, C100 PS-W2 Universal AC power supply C120, C130

Mounting Options

Part Number	Description
C120-MNT-15-16	AP mount kit for Interlude (15/16",24mm) T-grid rails for C-100, C-110, C-120, C-130
C120-MNT-9-16	AP mount kit for Suprafine (9/16",15mm) T-grid rails for C-100, C-110, C-120, C-130
C120-MNT-INTSIL	AP mount kit for Interlude and Silhouette T-grid rails for C-100, C-110, C-120, C-130
C100-MNT-FLAT	AP mount kit for flat surface installation (wall, hard ceiling) for C-100

Warranty

C-100 access point includes Lifetime Limited Warranty. For additional information please see http://www.mojonetworks.com/lifetime-limited-warranty

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