GALGUS® Access Point CHT Indoor IC600 (PREVIOUSLY AC1750YCRT)

Indoor PoE 1750 Mbps Dual Band 3X3 MIMO 802.11 a/b/g/n/ac

Galgus IC600 delivers the most advanced wireless communications features up to **300mW** high power indoor 802.11ac environment.

Thanks to its robust cage and its max gain **3dBi** WIFI antenna, makes this product to be the ideal one for indoor environment. It is an excellent choice for **indoor medium-high density multi-scenarios, such as schools, hospitals, large coffee shops, small and medium size hotels, offices, restaurants, enterprises....** to cover typical usage of HD movies, streaming, online gaming, wireless security, device location, positioning and other bandwidth-intensive tasks.

Main Features

Antenna	Build in omnidirectional, Max gain 3dBi, 2,4 GHz: 3x3 MIMO; 5 GHz: 3x3 MIMO. 300mW RF power.
Interfaces	10/100/1000 Mbps RJ45 WAN Port, WAN port supports IEEE 802.3at standard PoE, 10/100/1000 Mbps RJ45 LAN Port, Reset button
WIFI Standard 802.11	a, b, g, n, ac.
PHY Capacity	2.4 GHz: 450 Mbps 5 GHz: 1300 Mbps
QoS capabilities	Profile based packet priorities and planning. Bandwidth restriction for each SSID. VMM parameters modification Calling QoS classification and prioritization for wireless and wired interfaces Traffic congestion management: limitation of per user bandwidth
Power Supply	DC 12V 2A Jack Input (Power Injector no included) PoE: IEEE 802.3at PoE+
Maximum Consumption	<20W
Humidity	Operating: 5% to 95% (non-condensing)
Operating Temperature	-30°C (-22°F) to 70°C (158°F)
Dimensions (H x W x D) **Weight**	198 x 198 x 28 mm 750 gr
Security	WIDS & WIPS CHT, ACL support, IEEE 802.11w, RFC 6101 Secure Layer Socket, RFC 5246 Transport Layer Security, RFC 4253 Secure Shell, Advanced Firewall with SYN-Flood protection, MSS clamping, NAT, Port forwarding, Traffic Rules, Support 64/128-bit WEP, 128bit WPA (TKIP/AES), WPA & WPA2 Personal and Enterprise with IEEE 802.1x and VLAN tagging, WPA3 (roadmap) PSK, Local authorization via RADIUS Server, IPsec and L2TP passthrough, Key Management, PSK/TKIP Encryption, AES Encryption, Denial of Service Attack Protection, MAC Filtering (Dynamic Blacklist), Isolate wireless clients, Hide SSID
WIFI features	IEEE 802.11h (DFS), WPA & WPA2 Personal, WPA & WPA2 Enterprise with IEEE, 02.1x and VLAN tagging, WMM, Power Save, Tx Beamforming, LDPC, STBC, IEEE 802.11r/k/v, IEEE 802.11u Hotspot, Captive Portal Support, Online signup and policy provisioning, WISPr, Multiple SSIDs, Data aggregation, Packet priorities and planning, Statistics reporting, LLDP support, ACL support, SW updates and configuration through DHCP autoprovisioning, OFDM = BPSK,QPSK, 16-QAM, 64-QAM, 128-QAM, 256-QAM and DSSS = DBPSK, DQPSK, CCK modulations SSID broadcasting, Multi SSID up to 8 (4 SSID in 2.4GHz, 4 SSID in 5GHz), Tag VLAN based on SSID,
Management & Diagnostics	Galgus Cloud Manager, Web GUI, RFC 1157 & 2271 – SNMP, RFC 3414 – SNMP v3 HTTP/HTTPS Web Server, Zero Touch Provisioning, Telnet SSH, Network Controller Enhancer. Ping, Traceroute and Ns lookup tools. Syslog and Local Log support, Save and restore settings via Web Interface. Wireless RF status and throughput, TCP/UDP Connections statistics and details. Traffic metrics per interface, Load . Can manage the AP through VLAN ID, Map VLAN IDs to multiple SSID, IEEE 802.1q, Dynamic VLAN with 802.1x, Up to 16 VLAN
IP & Network	IPv4, IPv6, IEEE 802.1d & 802.1s– STP, IEEE 802.1q – VLANs, RFC 2131 & RFC 2132 – DHCP Client/Server, RFC 1661 PPP, RFC 2516 PPPoE, RFC 2637 PPPtP, RFC 2661 L2TP, Static Leases, Domain whitelist, Firewall, IP filter, URL filter and MAC filter, Can work as: Gateway (PPPOE, static IP, dynamic IP) , Wireless AP, Repeater, WISP, WDS, Ad-Hoc and Pseudo Ad-Hoc, Mesh 802.11s, Monitor, Bridge. DDNS, VPN pass through, Port forwarding and DMZ host. UDP, TCP, DNS, NTP, STP,
IPv6	RFC 6333 Dual Stack, RFC 4213 IPv6-in-IPv6, RFC 4291/3315: Dynamic Host. DHCPv6

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RF Performance Table

Frequency	2.4G:802.11b/g/n: 2.4GHz – 2.484GHz, 5GHz:802.11a/n/ac: 5.150GHz~5.850GHz				
Country code	FCC、IC、ETSI、MKK、MKK1、MKK2、MKK3、NCC、RUSSIAN、CN				
Modulation	OFDM = BPSK,QPSK, 16-QAM, 64-QAM, 128-QAM, 256-QAM DSSS = DBPSK, DQPSK, CCK				
Throughput	1200Mbps				
2.4G RF Power	802.11b	11M	20±2dBm	1M	22±2dBm
	802.11g	54M	19±2dBm	6M	21±2dBm
	802.11n HT20	MCS7	18±2dBm	MCS0	20±2dBm
	802.11n HT40	MCS7	17±2dBm	MCS0	19±2dBm
5G RF Power	802.11a	54M	19±2dBm	6M	21±2dBm
	802.11n HT20	MCS7	18±2dBm	MCS0	20±2dBm
	802.11n HT40	MCS7	17±2dBm	MCS0	19±2dBm
	802.11ac HT80	MCS9	16±2dBm	MCS0	18±2dBm
2.4G Receive Sensitivity	802.11b	11M	-85dBm	1M	-94dBm
	802.11g	54M	-72dBm	6M	-90dBm
	802.11n HT20	MCS7	-70dBm	MCS0	-88dBm
	802.11n HT40	MCS7	-68dBm	MCS0	-86dBm
5G Receive Sensitivity	802.11a	54M	-72dBm	6M	-90dBm
	802.11n HT20	MCS7	-70dBm	MCS0	-88dBm
	802.11n HT40	MCS7	-68dBm	MCS0	-86dBm
	802.11ac HT80	MCS9	-58dBm	MCS0	-85dBm
EVM	2.4G: 802.11b: ≤-10 dB; 802.11g: ≤-25 dB; 802.11n: ≤-28 dB 5G: 802.11a: ≤-25dB; 802.11n: ≤-28 dB; 802.11ac: ≤-32 dB				
Power Supply	±20ppm				
Max Users	>128				

COMMON FEATURES CHT

Its patented and **embedded Cognitive Hotspot Technology (CHT)** ensures users of your WiFi network will enjoy supreme performance even in the most adverse conditions. Thanks to its **automatic resource optimization and control** based on artificial intelligence, Galgus´ APs appropriately suit many different scenarios. In addition, the site administrator will find it easier to operate the network, with a **powerful and intuitive optional cloud management system:** You can handle your network from
a single location and extract more valuable information from your infrastructure.

A network with Galgus´ APs:
- **Avoids** the typical problems from those solutions with centralized controllers or cloud controllers such as lack of adaptability and robustness, single points of potential failure, delays in decision making, bottlenecks, traffic efficiency drop...

- Drastically **reduces operating costs**, as CHT is responsible for optimizing the network in real-time (allocation of radio resources, power, channels, bandwidth, load balancing, airtime fairness, smart and predictive roaming, traffic congestion management, etc.) automatically, without human intervention.

- **Adds an enormous value** to the existing infrastructure (location and tracking of connected users even if they falsify their MAC address, detecting, mitigating and even locating hacker attacks, generating heat maps in real-time, as well as discovering and exploiting the amendments that support the devices), allowing the owner of the network to use the data obtained without violating the user´ privacy.

- **Simplifies** administrators´ life, thanks to its Zero-Touch Provisioning philosophy for immediate deployment and advanced enterprise-grade management features (cloud management, REST API, captive portal and integration with social login, dynamic VLANs, WPA enterprise with Radius support, and modular licenses with auto-download system).

Optimization

- Automatic Channel Assignment
- Load Balancing
- Pre-Balancing
- Airtime Fairness
- Multicast-Unicast Conversion
- Automatic Power Control
- Smart Roaming
- Predictive Roaming
- Traffic Congestion Management
- Ultra-High Density Scenarios: Dynamic Probing Frames Management

Management

- Remote Management (Cloud)
- REST API
- Self-configuration
- Advanced Mesh with Self-Healing, Dynamic Re-Routing, QoS and Power Control
- Zero Touch Provisioning
- Captive Portal and Integration with Social Login
- Dynamic VLANs
- WPA Enterprise with Radius Support
- Modular Licenses and Auto-Download Licensing System

Analytics

- Wireless Intrusion Detection
- Wireless Intrusion Prevention
- Wireless Intrusion Location*
- Location, Positioning and Tracking of devices with real or randomized MAC
- Real-time Signal Strength Heatmap
- Unveiling of Randomized MAC Adresses
- Discovery of IEEE 802.11 Amendments Supported by User Devices

(*) Available in future release.

Types of Licences 2020

Features	Standard	Premium
MANAGEMENT		
Cloud Manager	✓	✓
REST API	✓	✓
Integration with third party dashboards	✓	✓
Mesh with self-healing and dynamic re-routing	✓	✓
Self configuration	✓	✓
Remite SSH access to the APs	✓	✓
Zero Touch Provisioning (ZTP)	✓	✓
Local web interface	✓	✓
Intuitive CLI	✓	✓
Modular licenses and auto-download	✓	✓
OPTIMIZATION		
No central controller (No bottlenecks/Point of failure)	✓	✓
Distributed intelligence without central controller	✓	✓
Smart Roaming (Seamless handoff)	✓	✓
Automatic Channel Assignment	✓	✓
Local blancing (Real-Time resource allocation)	✓	✓
Prebalancing (Association control)	✓	✓
Traffic control (Bandwidth limits for users and radios)	✓	✓
Automatic Power Control	✓	✓
Smart Multicast (Multicast to unicast conversion)	✓	✓
Airtime Fairness	✓	✓
Dynamic probe management for ultra high density	✓	✓
Predictive Roaming	✓	✓
ANALYTICS		
Location and tracking of associated devices	✗	✓
Location and tracking of unassociated devies	✗	✓
Location and tracking of devices with random MAC	✗	✓
Real Time signal strength heatmap	✗	✓
Real Time modulation and coding (MCS) heatmap	✗	✓
Resl-time device capabilities heatmap	✗	✓
Coverage estimation	✓	✓
Unveilling of fake MAC address for associated devices	✓	✓
Dicovery of IEEE amendments supported by devices	✓	✓
Device fingerprinting	✓	✓
Spectral analysis	✓	✓
SECURITY		
Secured communication between APs (Eliptic curve)	✓	✓
Wireless Intrusion Prevention	✗	✓
Wireless Intrusion Detection	✗	✓
Wireless intrusion Location	✗	✓
WPA/WPA2 personal and Enterprise	✓	✓
WPA3 personal and Enterprise	✓	✓
Alerts and events	✓	✓
Internal captive portal	✓	✓
External captive portal	✓	✓
Integration with social login	✓	✓
Firewall	✓	✓
Dynamic VLANs	✓	✓
Radius support	✓	✓
GDPR-compliant	✓	✓
Hotspot 2.0	✗	✓