

## CabinACe-2™

### A cabin wireless access point from the Summit line

The CabinACe-2 Cabin Wireless Access Point (CWAP) is the first commercially available ARINC 628 compliant 802.11ac, Wave 2 product for commercial aircraft wireless environments. The CabinACe-2 CWAP enables the highest capacity performance and efficiency in extremely high-density environments for enhanced connectivity and passenger experience.



The new CabinACe-2 CWAP features best-in-class next generation performance with a small footprint and low power consumption, making it suitable for both linefit and retrofit installations.

The CabinACe-2 design leverages the latest state-of-the-art, commercial enterprise-class access point from Aruba Networks, Inc. The product utilizes Adaptive Radio Management (ARM) technology that will automatically assign channel and power settings, provide airtime fairness, and ensure that the AP remains clear of all sources of RF interference. Combined with active beam forming, this creates the best possible RF path, and optimizes throughput to deliver the most reliable, and efficient performance to client devices.

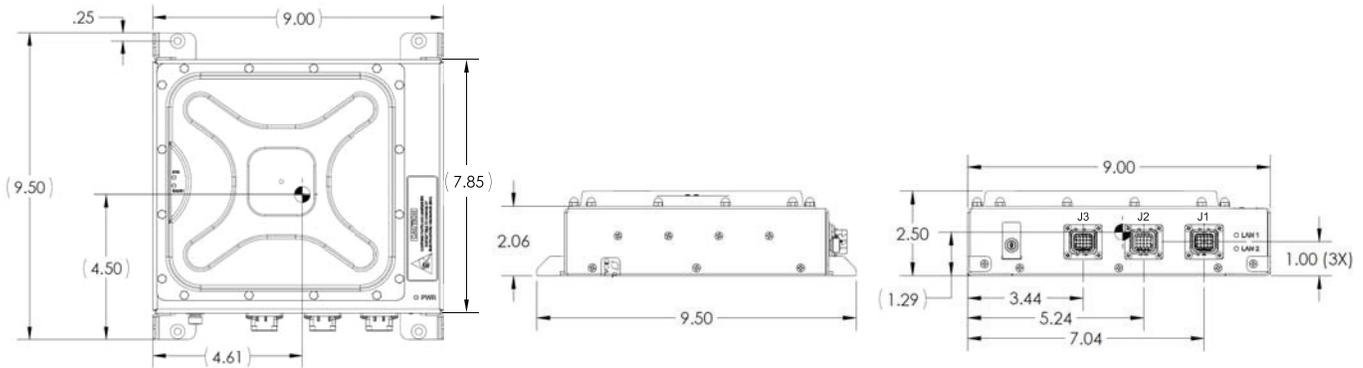
The CabinACe-2 CWAP meets the electrical and mechanical requirements of ARINC 628P1-7. This market leading product solution is ready for integration into your existing IFEC Systems or to use as a starting point for creating your new system.

#### Product Features

|                                |   |
|--------------------------------|---|
| Wireless Protocol              | 802.11ac (Wave 2) Backwards Compatible to 802.11 a/b/g/n  |
| Radio Operation                |   |
| Bands of Operation             | Simultaneous 5 GHz and 2.4 GHz  |
| Spatial Streams                | 4   |
| MIMO                           | 4 x 4   |
| Max Throughput                 | 4 Spatial Streams; SU-MIMO for up to 1.73 Gbps to a Single Client Device<br>2 Spatial Streams; MU-MIMO for up to 1.3 Gbps for up to Three MU-MIMO Capable Client Devices Simultaneously (5 GHz Band), 600 Mbps (2.4 GHz Band) |
| Capacity                       | Support for up to 255 Associated Client Devices per Radio and up to 16 BSSIDs per Radio   |
| Antennas                       | 8 Integrated Omni-Directional Antennas with Adaptive Beam Forming for Enhanced Throughput Capabilities  |
| Adaptive Radio Management      | Dynamic Frequency Selection, Able to Adjust Power and Channel in High Density Environments and Adjust Transmit Power to Optimize Available Bandwidth  |
| Regulatory Domain              | Support for World Wide (-WW) Operation via CLI, which can Automatically Configure the WAP in Accordance with Location Information to Pre-Set Regulatory Domains Stored within the AP  |
| Regulatory Compliance          | United States; FCC 15.247 (2.4 GHz), 15.407 (5GHz), 15.209, 15.207<br>Canada RSS Gen, RSS-247<br>Europe; EN 300 328 v2.1.1, EN 301 893 v2.0.7 (DRAFT), EN 301 489-1/-17 v2.1.1/v3.1.1 (DRAFT/DRAFT)                           |
| Virtual Controller             | Fully Autonomous - No Need for Separate Wireless Controller   |
| I/O Connectors (per ARINC 628) | J1, J2 and J3 are EN4165 Style Connectors. Pinouts Are Compliant to ARINC 628P1-7. Micro USB Connector Is Used for Serial Console Connection to Access Point  |
| Ethernet Bypass                | Internal Ethernet Switch to Support Ethernet Pass-Thru (Daisy Chain Operation). Redundant Power Supply to Allow Downstream WAPs to Communicate with Headend Server in the Event of a Failure of the Primary Power Supply      |
| Static IP Address              | 4 IP Address Strapping Bits (Per ARINC 628P1-7)   |
| Discrete I/O                   | Input for Remote ON/OFF and RF Enable Control Outputs for Pass-Thru Signaling for Downstream WAPs   |
| Power                          | 115VAC, 360-800Hz. Aircraft-Grade AC Power Supply with 200 msec of Hold-Up Capacity   |
| Mounting                       | ARINC 836, Size A836-1-7  |
| Cooling                        | Natural Convection  |

## Outline Dimensions

in inches



## Connectors

| REF DESIGNATOR | SHELL       | INSERT           | MATING SHELL | MATING INSERT    |
|----------------|-------------|------------------|--------------|------------------|
| J1             | EN4165M01AA | EN4165A20-22-1NA | EN4165M61AA  | EN4165A20-22-1NB |
| J2             | EN4165M01AB | EN4165A20-22-1NB | EN4165M61AB  | EN4165A20-22-1NA |
| J3             | EN4165M01AC | EN4165A20-22-1NA | EN4165M61AC  | EN4165A20-22-1NB |

## Environmental/EMI Test Requirements

| DESCRIPTION                                 | SECTION    | RTCA/DO-160G CATEGORY |
|---|------------|-----------------------|
| Temperature                                 | Section 4  | Category A1           |
| Altitude                                    | Section 4  | Category A1           |
| Decompression (45,000 FT)                   | Section 4  | Category A1           |
| Overpressure (-19,000 FT)                   | Section 4  | Category A1           |
| Temperature Variation (50/min)              | Section 5  | Category B            |
| Humidity                                    | Section 6  | Category A            |
| Waterproofness (140 l/m <sup>2</sup> /Hr)   | Section 10 | Category W            |
| Fluids Susceptibility (60/40 PGW)           | Section 11 | 11.4.1                |
| Vibration - Random                          | Section 8  | Category S, Curve C   |
| Operation Shock                             | Section 7  | Category B            |
| Crash Safety - Impulse and Sustained        | Section 7  | Category B            |
| Fungus Resistance                           | Section 13 | Category F            |
| Power Input                                 | Section 16 | Category A(WF)X       |
| Voltage Spikes                              | Section 17 | Category A            |
| AF Conducted Susceptibility - Power Inputs  | Section 18 | Category R(WF)        |
| Induced Signal Susceptibility               | Section 19 | Category ZW           |
| RF Susceptibility (Conducted and Radiated)  | Section 20 | Category T            |
| RF Emissions (Conducted and Radiated)       | Section 21 | Category M            |
| Lightening Induced Transient Susceptibility | Section 22 | Per Boeing D6-85512   |
| Electrostatic Discharge                     | Section 25 | Category A            |

804 S. Northpoint Blvd. | Waukegan, IL 60085 | USA +1.847.244.4500 CSCsales@astronics.com  
astronics.com/CSC

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