

Date: 09/08/2022

TO: Federal Communication Commission
7435 Oakland Mills Rd
Columbia, MD 21046

Exhibit Subject: Request for Re-use of Reference Data

We, Astronics CSC submit this formal request to the FCC Authorization and Evaluation Division for an expedited review of a new authorization application. The purpose of this exhibit is this application includes test data from another FCC ID for the reference of EMC/Radio Parameters. This exhibit follows guidance in **FCC KDB 484596 D01 Referencing Test Data v01** and it identifies the suitability of using existing reference EMC/Radio Parameter data for a new application.

1- Introduction:

Astronics CSC has created a new product called the CabinAXe Cabin Wireless Access Point (CWAP).

This new product incorporates an existing certified WiFi Access Point (manufactured by Aruba Networks) into the new CabinAXe product housing. The Astronics integration removes the complete electronics assembly from the Aruba certified access point enclosure and incorporates the Aruba electronics/PCB without making changes to the electronics/PCB into the new CabinAXe IFE product housing.

The electronics/PCB from the certified Aruba Access Point are certified as noted:

Date of Grant: 07/29/2021

The Aruba WiFi Access Point is certified as FCC ID: Q9DAPIN0635.

Equipment Class: DTS, UNII-TX

Rule Parts: 15.247, 15.407

Frequency Range(MHz) 2400-2484

Frequency Range(MHz) 5150-5250; 5250-5350; 5470-5725; 5725-5850

Frequency Range(MHz) 5850-5895; 5925-6425; 6425-6525; 6525-6875; 6875-7.125

The Aruba electronics/PCB are integrated into the CabinAXe system with a new certification as noted:

Date of Grant: New Grant

The new Astronics CabinAXe system is being certified as FCC ID: 2AL4H-70000016.

Equipment Class: DTS, UNII-TX

Rule Parts: 15.247, 15.407

Frequency Range(MHz) 2400-2484

Frequency Range(MHz) 5150-5250; 5250-5350; 5470-5725; 5725-5850

Frequency Range(MHz) 5850-5895; 5925-6425; 6425-6525; 6525-6875; 6875-7.125

Astronics CSC takes full responsibility that the test data in the Aruba reference EMC/Radio reports, the spot checks of compliance for the new CabinAXe, and any new testing represents compliance in full for the new FCC ID.

2- Explanation of Differences:

The Aruba WiFi Access Point (FCC ID: Q9DAPIN0635) electronics/PCBs and antenna(s) are removed from the housing in which the Aruba electronics are certified. The Aruba electronics/PCBs and antenna(s) are then designed and integrated into the Astronics CabinAXe (FCC ID: 2AL4H-70000016). The antennas are located beneath a radome on the CabinAXe. The integration of the Aruba electronic assembly into the new CabinAXe host does not change any of the hardware, firmware, or software as initially certified by Aruba.

3- Spot Check Verification Data Section:

Spot checked data is represented by Elite reports

ETR 2104193-01A

ETR 2104193-02

ETR-2104193-03

See Reference Section cross reference for cited reports.

4- Reference Section:

The following table noted below provides a detailed matrix listing the cross references for test reports and certified Aruba Access Point products cited with other FCC ID(s).

Sincerely Yours,

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Cross Reference Matrix for Justification of Data Reuse.								
The FCC ID's and Reports noted in this table represent the original certification and testing performed on the Aruba APIN0635 WiFi Access Point. Since the electronics/PCB from this product are integrated into the Astronics CabinAXe without the Aruba electronics being changed, much of the original test data noted in this table is used to support the equipment authorization for the Astronics CabinAXe.								
Reference Device	FCC ID	Test Laboratory	Report No.	Rpt Issued	Rule Part	Range (MHz)	Technology	Reference Data Review and Comments
Aruba APIN0635	Q9DAPIN0635	MRT Technology (Suzhou) Co., Ltd	2101TW0003-U28	5/09/2022 05/10/2022	15.247	2412-2462	WLAN 802.11b/g/n & BT [2.4GHz]	This report(s) provides test data for the original Aruba APIN0635.
Aruba APIN0635	Q9DAPIN0635	MRT Technology (Suzhou) Co., Ltd	2101TW0003-U4	5/10/2022	15.407	5180-5825	WLAN 802.11a/n/ac/ax [UNII Band I, III]	This report provides test data for the original Aruba APIN0635.
Aruba APIN0635	Q9DAPIN0635	MRT Technology (Suzhou) Co., Ltd	2101TW0003-U4	5/10/2022	15.407	5190-5795	WLAN 802.11n/ac/ax [UNII Band II, II-Ext]	This report provides test data for the original Aruba APIN0635.
Aruba APIN0635	Q9DAPIN0635	MRT Technology (Suzhou) Co., Ltd	2101TW0003-U4	5/10/2022	15.407	5210-5775	DFS WLAN 802.11ac/ax [UNII Band II, II-Ext]	This report provides test data for the original Aruba APIN0635.
Aruba APIN0635	Q9DAPIN0635	MRT Technology (Suzhou) Co., Ltd	2101RSU034-U2	5/28/2022	15.407	5955-7085	WLAN 802.11ax [6.0Hz]	This report provides test data for the original Aruba APIN0635.
The FCC ID's and Reports noted in this table represent the spot check testing performed on the CabinAXe that incorporates the Aruba APIN0635. Since the electronics/PCB from the APIN0635 are integrated into the Astronics CabinAXe without the Aruba electronics being changed, only radiated spot check testing is performed to support the equipment authorization for the Astronics CabinAXe. In every case all spot check testing identifies passing results.								
New Device	FCC ID	Test Laboratory	Report No.	Rpt Issued	Rule Part	Range (MHz)	Technology	Reference Data Review and Comments
CabinAXe	2AL4H-70000016	Elite Electronic Engineering	2104193-01	8/2/2022	15.247	2412-2462	WLAN 802.11b/g/n & BT [2.4GHz]	Spot checks of spurious radiated emissions performed 802.11b 1Mbps Ch 1,6,11 802.11n20 MCS0 Ch 11 802.11n40 MCS0 Ch 3/6/9 802.11n40 MCS0 BF Ch 9
CabinAXe	2AL4H-70000016	Elite Electronic Engineering	2104193-02	8/2/2022	15.407	5180-5825	WLAN 802.11a/n/ac/ax [UNII Band I, III]	Spot checks of spurious radiated emissions performed 802.11a Ch 36/44/48/149/157/165 802.11n20 Ch 149/157/165
CabinAXe	2AL4H-70000016	Elite Electronic Engineering	2104193-02	8/2/2022	15.407	5190-5795	WLAN 802.11n/ac/ax [UNII Band II, II-Ext]	Spot checks of spurious radiated emissions performed 802.11a Ch 52/60/64/100/120/140 802.11ac20 Ch 100/120/140 802.11ac40 Ch 54/62 802.11ac80 Ch 58 802.11n20 BF Ch 52/60/64
CabinAXe	2AL4H-70000016	Elite Electronic Engineering	2104193-02	8/2/2022	15.407	5210-5775	DFS WLAN 802.11ac/ax [UNII Band II, II-Ext]	No additional spot check testing for DFS was determined necessary and no additional spot check testing performed for DFS. Rationale: 1- Complete DFS testing was originally performed on FCC ID: Q9DAPIN0635. 2- There are no changes to the Aruba electronics/PCB with the integration into the CabinAXe. The CabinAXe uses the same Qualcomm RF Chipset Model: IPQ4019 and DFS waveform detection mechanism, unchanged from previous Aruba systems. 3- DFS Spot checks were completed on a similar Aruba "data reuse" for FCC ID QQ9DAPINP303. In this example, the same Aruba electronics/PCB FCC ID: Q9DAPIN0635 were incorporated in a new Aruba access point FCC ID QQ9DAPINP303. For this grant spot checks were performed conducted and radiated with compliant results. 4- Given that DFS has been tested on Aruba electronics/PCB incorporating the same Qualcomm RF chipset, and that the CabinAXe incorporates the Aruba electronics/PCB without changes, it was concluded retesting for a third time would not be productive.
CabinAXe	2AL4H-70000016	Elite Electronic Engineering	2104193-03	8/2/2022	15.407	5955-7085	WLAN 802.11ax [6.0Hz]	