

ARINC Project Initiation/Modification (APIM)

- 1.0 Name of Proposed Project** **APIM 16-005**
Define Cabin System Interfaces as follows:
- HD Landscape Camera
 - USB 3.1 Power Outlets
 - Update Network System Components
 - 4K Ultra High Definition Video Standards
- 1.1 Name of Originator and/or Organization**
Cabin Systems Subcommittee (CSS)
Delta Air Lines, Chairman
- 2.0 Subcommittee Assignment and Project Support**
- 2.1 Suggested AEEC Group and Chairman**
Cabin System Subcommittee (CSS)
Dale Freeman, Delta Air Lines
- 2.2 Support for the activity (as verified)**
Airlines: Delta
Airframe Manufacturers: Airbus, Boeing
Suppliers: KID, VT Miltope, LH-Technik, Thales, Panasonic, Rockwell-Collins, Lumexis, Zodiac ZII, Zodiac Seats France, Astronics, Amphenol, TE Connectivity, Esterline Souriau, ITT Cannon, W. L. Gore, Molex, Latecoere
Others:
- 2.3 Commitment for Drafting and Meeting Participation (as verified)**
Airlines: Delta
Airframe Manufacturers: Airbus, Boeing
Suppliers: KID, VT Miltope, LH-Technik, Thales, Panasonic, Rockwell-Collins, Lumexis, Zodiac ZII, Zodiac Seats France, Astronics, Amphenol, TE Connectivity, Esterline Souriau, ITT Cannon, W. L. Gore, Molex, Latecoere
Others:
- 2.4 Recommended Coordination with other groups**
N/A
- 3.0 Project Scope (why and when standard is needed)**
- 3.1 Description**
New and retrofit aircraft will use the documents developed under this standardization program. The documents will define cost effective and valuable network infrastructures for interface standards between inter-cabin and cabin-to-aircraft equipment and communications standards.

If YES please describe, identify patent holder: Not applicable

3.3 Issues to be worked

- Definition of standard cabin interfaces for the technologies indicated

4.0 Benefits

4.1 Basic benefits

Operational enhancements yes no

For equipment standards:

(a) Is this a hardware characteristic? yes no

(b) Is this a software characteristic? yes no

(c) Interchangeable interface definition? yes no

(d) Interchangeable function definition? yes no

If not fully interchangeable, please explain: _____

Is this a software interface and protocol standard? yes no

Product offered by more than one supplier yes no

Identify:

4.2 Specific project benefits (Describe overall project benefits.)

Cabin systems provide entertainment and other services to the passenger. To satisfy the airline's desire for improved services to its passengers, cabin systems are becoming more sophisticated and complex. Home entertainment and office type computing systems and peripherals are finding applications in the cabin to facilitate data handling and communication to the ground. The growing complexity of cabin equipment has resulted in the need to update Cabin Standards in multiple parts. New standards are being added to provide guidance to developers of next generation systems and networks. The benefits of the cabin standards are numerous. They provide the airlines freedom of choice, unit price reduction through increased volume, interchangeable spares, more upgradeable options, and creation of more sub- markets for integrators and software/hardware suppliers. These benefits are being realized on all new aircraft programs, eventually regional and business jets, and retrofit aircraft programs.

4.2.1 Benefits for Airlines

- Equipment interchangeability between suppliers
- Reduction in development cost, improved reliability, and therefore reduced cost for the airlines

4.2.2 Benefits for Airframe Manufacturers

- Equipment interchangeability between suppliers
- Flexibility and reduced costs by working from the same set of guidelines
- Reduction of time and cost for new developments due to reuse of proven solutions

4.2.3 Benefits for Avionics Equipment Suppliers

- Eliminates the need to design custom provisions for each installation

- Reduction of time and cost for new developments due to reuse of proven solutions

5.0 Documents to be Produced and Date of Expected Result

- Supplement 8 to ARINC 628P1
- Supplement 9 to ARINC 628 Part 2
- Supplement 4 to ARINC 809
- Supplement 2 to ARINC 832
- Supplement 4 to ARINC 628 Part 9

5.1 Meetings and Expected Document Completion

The following table identifies the number of meetings and proposed meeting days needed to produce the documents described above.

Activity	Mtgs	Mtg-Days (Total)*	Expected Start Date	Expected Completion Date
Supplement 8 to ARINC 628P1	3	9	5/16	3/17
Supplement 2 to ARINC 832	2	6	5/16	3/17
Supplement 4 to ARINC 809	3	9	5/16	3/17
Supplement 9 to ARINC 628 Part 2	3	9	5/16	3/17
Supplement 4 to ARINC 628 Part 9	5	15	5/16	9/17
Allocated Resources (max)	5	15	May 2016	September 2017

* Meeting days reflect CSS meetings responsible for multiple ARINC Standards. In addition to the in-person meetings identified above, web conferences will be called to support specific project goals.

6.0 Comments

This APIM opens the following three standards.

- ARINC Specification 628 Part 2
- ARINC Specification 628 Part 9
- ARINC Specification 809
- ARINC Specification 832

The following documents are already being supplemented under existing APIMs:

- ARINC Specification 628 Part 1 (APIM 15-006)

6.1 Expiration Date for this APIM

October 2017

Completed forms should be submitted to the AEEC Executive Secretary.