ARINC Project Initiation/Modification (APIM)

# Name of Proposed ProjectAPIM 20-002A

Supplement 21 to ARINC Specification 600: Air Transport Avionics Equipment Interfaces

Size 4 ARINC 600 Connector, Rack and Panel (960 pins)

## Name of Originator and/or Organization

AIRBUS

# Subcommittee Assignment and Project Support

## Suggested AEEC Group and Chairman

ARINC 600 Connector Working Group

Chairman: Steffen Ohde, Airbus

## Support for the Activity (as verified)

Airlines: TBD

Airframe Manufacturers: AIRBUS

Suppliers: RADIALL / SOURIAU / TE

Others: to add system suppliers 🡪 AIRBUS AVIONICS (internal suppliers)

## Commitment for Drafting and Meeting Participation (as verified)

Airlines: TBD

Airframe Manufacturers: AIRBUS

Suppliers: RADIALL / SOURIAU / TE

Others: to add system suppliers 🡪 AIRBUS AVIONICS (internal suppliers)

## Recommended Coordination with other groups

Cabin Systems Subcommittee

SAI Subcommittee

# Project Scope (why and when standard is needed)

## Description

The aim is to increase:

* New connector size with 3 additional cavities
* Shell number available
* Pins number

See attached presentation.



Receptacle connector



Plug connector

ARINC 600 performance expected to be defined, both electrical and mechanical.

## Planned usage of the ARINC Standard

Note: New airplane programs must be confirmed by the aircraft manufacturer prior to completing this section.

New aircraft developments planned to use this specification yes [ ]  no [x]

 Airbus: (aircraft & date)

 Boeing: (aircraft & date)

 Other: (manufacturer, aircraft & date)

Modification/retrofit requirement yes [x]  no [ ]

 Specify: (A320 & 2023 for testing)

Needed for airframe manufacturer or airline project yes [x]  no [ ]

 Specify: (A320 & 2023 for testing)

Mandate/regulatory requirement yes [ ]  no [x]

 Program and date: (program & date)

Is the activity defining/changing an infrastructure standard? yes [x]  no [ ]

 Specify: ARINC 600 standard

When is the ARINC standard required? May 2024

What is driving this date? to secure system architecture new development with buy strategy

Are 18 months (min) available for standardization work? yes [x]  no [ ]

 If NO please specify solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Are Patent(s) involved? yes [ ]  no [x]

 If YES please describe, identify patent holder: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Issues to be Worked

(Describe the major issues to be addressed.)

Additional cavities with existing ARINC 600 shells (cf. drawing).

## Security Scope

Is Cyber Security Impacted (if yes, check box(es) below) yes [ ]  no [x]

 Aircraft Control Domain yes [ ]  no [x]

 Airline Information Services Domain yes [ ]  no [x]

 PAX Information and Entertainment Systems yes [ ]  no [x]

 Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ yes [ ]  no [x]

# Benefits

## Basic Benefits

Operational enhancements yes [ ]  no [x]

For equipment standards:

* + - * 1. Is this a hardware characteristic? yes [x]  no [ ]
				2. Is this a software characteristic? yes [ ]  no [x]
				3. Interchangeable interface definition? yes [ ]  no [x]
				4. Interchangeable function definition? yes [ ]  no [x]

 If not fully interchangeable, please explain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Is this a software interface and protocol standard? yes [ ]  no [x]

 Specify: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Product offered by more than one supplier yes [x]  no [ ]

 Identify: RADIALL / SOURIAU / TE

## Specific Project Benefits

## Offer more PIN contact per avionics equipment to system.

### Benefits for Airlines

Enabler for more integrated systems (e.g. Reduce number of avionics S/N)

### Benefits for Airframe Manufacturers

Offer more PIN contact per avionics equipment to system,

### Benefits for Avionics Equipment Suppliers

Foster an ecosystem around a new standardized connector.

# Documents to be Produced and Date of Expected Result

ARINC 600 Standard update in May 2024.

## Meetings and Expected Document Completion

6 meetings to be anticipated during the 18 months

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** |
| ARINC 600 | 20 (est)  | 20 (est) 18 | 06/2020 |  May 2024 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Bi-monthly online meetings are planned at this time (6 meetings per year).

# Comments

These meetings will be held online until in-person travel is viable.

## Expiration Date for the APIM

December 2024

***Completed forms should be submitted to Paul Prisaznuk (pjp@sae-itc.org)***

***AEEC Executive Secretary & Program Director***