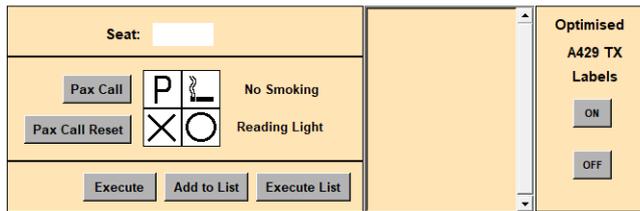
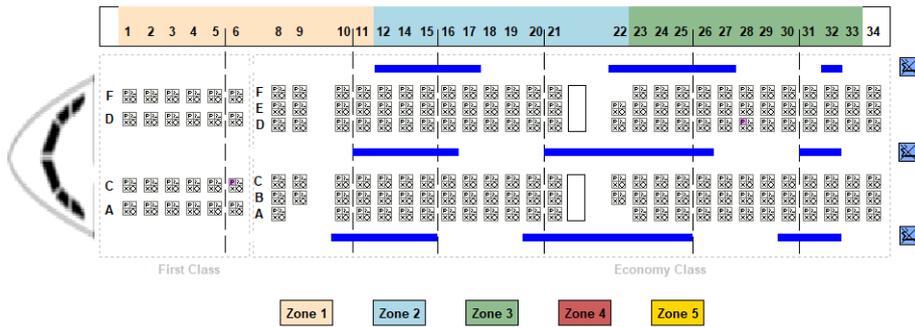


CIDS321-200

Airbus A321-200

CIDS Director Simulation

Passenger Seats A321-200



- Flexible configuration
- Accurate simulation of the ARINC 429 data traffic
- Optional recording of the ARINC 429 data traffic
- Optional hardware emulation of the keylines

CIDS321-200 Airbus A321-200 CIDS Director Simulation

Application Scope

The **CIDS321-200** simulation program, which simulates the behavior of a Cabin Intercommunication Data System (CIDS) head end equipment, is used to test and validate the data exchange to and from the Passenger Entertainment System (PES) and/or the Video Control Unit (VCU) serving as UUT.

The CIDS simulation supports the following main functions:

- > Loading of configuration data from files
- > Exchange of cabin layout data
- > Transmission of update requests to PESC/VCU
- > Reception of service requests from PESC/VCU
- > Monitoring of cyclic labels and protocol
- > Optional full ARINC 429 data logging
- > Protocol error stimulation

The simulation is implemented in the platform-independent TCL/Tk script language. Presently, there are versions for the following software and hardware platforms:

- > Windows 10
- > ARINC 429 interface options from TechSAT: 2 Tx/4Rx or 4 Tx/8 Rx channels A429-USB device

GUI Overview

The CIDS simulation application is comprised of a set of control, configuration, and display panels, all integrated in a single container window. The bottom section contains controls to terminate the CIDS simulation and to start and stop the CIDS recording file. In the following each of the panels is presented in brief.

Cabin 321-200 – This interactive panel shows a typical A321-200 passenger cabin layout, comprising 34 rows with up to 6 seats each, arranged in 3 color-coded zones. Non-smoking zones are indicated by blue bars. At startup the header and zoning data is retrieved from the 'cids.cfg' configuration file. The PCU control panel allows the operator to retrieve the PCU settings for a particular seat and change them via pushbuttons. The cabin layout diagram is color-coded reflecting the current PCU states for each seat. It is also interactive, that is, each seat can be clicked. The associated PCU states are then displayed in the PCU control panel.

All Seats – This interactive panel shows a theoretical cabin layout, comprising a maximum of 63 rows with 15 seats each, arranged in 5 zones. The PCU control panel allows the operator to retrieve the PCU settings for a particular seat and change them via pushbuttons.

Cabin Rooms Seats – This interactive panel shows the Main Deck Rooms layout. The PCU control panel allows the operator to retrieve the PCU settings for a particular seat and change them via pushbuttons.

Cabin Rooms Signs – The Main Deck Rooms Signs panel displays the current states of the Signs, Alerts, Illumination Modes, and Compartment Status as set by the CIDS director for the various rooms (1 through 8).

Config/Cyclic/Keylines/ PAsources – This panel is used to:

- > set protocol characteristics
- > select the equipment ID
- > define the protocol timing
- > indicate the update rate for all cyclic labels sent by CIDS
- > indicate the PA Sources
- > set the PESC Output Keylines
- > display the status of the Input Keylines

Control / Protocol Timing – This panel is used to:

- > issue PESC enquiries to CIDS (Header, Main Deck Cabin Zone, Maindeck No Smoking Zone) (one shot)
- > submit Main Deck PAX Call Reset to CIDS per zone / room
- > submit Lower Deck PAX Call Reset to CIDS per room (one shot)
- > submit General Status PESC data to CIDS (cyclic)
- > display the Header Data as received from CIDS
- > display the General Status CIDS data
- > display the Equipment ID and Version ID as received from CIDS
- > display the Protocol Status and Protocol Timing for Header, one, NS-Zone
- > display the duration of complete layout exchange

Technical Data

Hardware Requirements

- 1 ARINC 429 interface - the options are:
 - 2 Tx/4 Rx A429-USB device (PN 403557)
 - 4 Tx/8 Rx A429-USB device (PN 403568)

Optional Hardware

- Module for keyline support (PN 1010809)

Operating System Options

- Windows 10 32/64 bit

Part Number

- 202010