



## A615 PDL Ranger ARINC 615 Portable Data Loader



- ARINC 615-3 / 603 data loading
- ARINC 615A data loading (hardware included, software on request)
- Full-ruggedized 10.4" Panasonic Toughbook CF-19 in polyethylene protector case
- 3.5" floppy disk, CD-ROM, USB, and hard disk loading
- Ethernet-to-A429 device providing 4 Tx and 8 Rx ARINC 429 channels plus 4 function discrettes
- Two power operation modes: 115 VAC / 400 Hz and 230 VAC / 50 Hz
- A615-3 load cable and A603 load stub cable adapter in cable storage
- Fully compliant with standard PDL adapter cables





mastering  
realtime  
complexity

# A615 PDL Ranger

## ARINC 615 Portable Data Loader

### Application Scope

TechSAT's portable data loader **A615-PDL Ranger** is an integrated software and hardware solution for loading aircraft software parts, such as databases and operational programs, into airborne computers according to the ARINC 615-3 and ARINC 603 standards. The system also provides the complete hardware required for ARINC 615A data loading. On request, TechSAT's A615A NetLoader software can be included as an add-on application.

### Features

The **A615-PDL Ranger** is protected by a watertight, crushproof, and dust-proof housing, which ensures safe operation even in harsh flightline environments. The loader is based on commercial-off-the-shelf parts and components. The assembly's system design and the assembly itself targets to fulfill ground support equipment (GSE) requirements.

The core system consists of a ruggedized notebook PC. An Ethernet-to-ARINC 429 device serves as ARINC 429 resource. TechSAT's preinstalled A615-3 SpeedLoader application for Windows is used as data loader utility.

The system can be operated in two power modes. Either power (115 VAC / 400 Hz) is supplied by the aircraft computer through the A615-3 load cable connected to the Ranger, or the system is connected to a standard lab power outlet (230 VAC / 50 Hz) via its external power receptacle.

The backside of the protector case is used as a cable storage that contains two types of connector cables required to attach the Ranger to either A615-3 or A603 LRUs.

### Technical Data

#### Notebook Features

- Full-ruggedized Panasonic Toughbook CF-19
- Housed in rugged polyethylene protector case
- 160 GB HDD shock-mounted and quick-release
- 10.4" 1024x768 XGA touchscreen display
- Battery:
  - Battery operation: 7 hours (XP) (according to Panasonic)
  - Battery charging time: 4.5 hrs. off / 6.5 hrs. on (with 110 VAC / 60 Hz or 220 VAC / 50 Hz external power)

#### Peripheral Devices

- Standard external 3.5" USB floppy drive
- Standard external 16x read USB CD-ROM drive

#### Cable Storage

- ARINC 615-3 load cable: 256 cm (8.4 ft)
- ARINC 603 adapter stub cable: 20 cm (0.65 ft)

#### Ethernet-to-A429 Interface

- Four transmitter channels
- Eight receiver channels
- Four function discretes

#### Connectors

- Internal Connectors (inside protector case):
  - 53-pin ARINC 615-3 receptacle for attaching the A615-3 load cable
  - Standard USB port for connecting external USB devices
- External Connectors (outside protector case):
  - 3-conductor C14 power receptacle with ON/OFF switch to connect the A615-PDL Ranger to an external 230 VAC / 50 Hz power supply
  - RJ45 Ethernet socket with cover (e.g. for LAN access)

#### Power Supply

- 230 VAC / 50 Hz (via external power inlet)
- 115 VAC / 400 Hz (via load cable)
- Power OUT: 15 VDC, 6.5 A

#### Software

- Windows XPpro | Windows Vista | Windows 7
- A615-3 SpeedLoader
- A615A NetLoader (optional)

#### Physical Dimensions

- Size outside: L 462 mm, B 340 mm, H 170 mm
- Size inside: L 432 mm, B 297 mm, H 170 mm
- Weight in total: 9.5 kg (21 lbs.)

#### Operating Environment

- Temp. operating: 5 °C to 35 °C
- Temp. storage: -20 °C to 60 °C
- Humidity operating: 30% to 80% RH not-condensing

#### Power Consumption

- 0.4 A at 230 VAC, approx. 60 W