

Cheetah

3.5" Slave Display



TECHNICAL DESCRIPTION

The **Cheetah Slave Display** module is available for use in space constrained areas where specific information needs to be communicated to personnel i.e. the driver or the gunner or the crew.

The slave display provides a custom graphical interface and associated custom communication interface protocol. The user defined custom graphics allow the user to define the unique symbols associated with the specific user functions e.g. gunner aiming specific symbols.

The information to be displayed is sent from an external master processing unit e.g. CheetahNAV Master Display Unit (MDU). The slave display allows graphical information to be communicated on one of three interfaces i.e. RS422, CAN or Ethernet.

The resistive touch interface allows user commands to be communicated to the master processing unit.

The slave display allows user specific functions to be implemented i.e. Driver Display symbols specific to tactical route navigation. Multiple slave displays with unique user function symbols may be installed using the Ethernet interface option.

The multi-language option ensures successful joint multinational operations.

The slave display is a sunlight readable 3.5" TFT display with a 240x320 resolution. The video display option allows the slave display to monitor a reverse camera using a Moving JPEG video format on the Ethernet communication interface.

The unit is provided with filtered 12VDC power or optional with a Power-over-Ethernet (PoE) interface.

Slave Unit

► User Functions

- Navigation Driver Display Unit (DDU)
- Gunner Display
- Crew Display
- Reverse Camera monitoring
- Crew Movement monitoring

► Display

- 3.5" Diagonal TFT
- 240x320 Resolution
- Sunlight Readable

► Power Interfaces

- 12VDC @ 4.5W (provide filtered power) for RS422 and CAN options
- Power-over-Ethernet (PoE) option (Class 1/3)

► Communication Interfaces

- Serial RS422
- CAN (ISO-11898)
- 100Mbps Ethernet (PoE) for video
- Resistive touch screen interface option

► Processor Options

- Basic: Cortex-M7 ARM-based, STM32F7 Series
- Video: Cortex-M7 ARM-based, STM32H7 Series

► Video Options

- MJPEG (Motion JPEG) video
- 240x320 @ 30fps

► Graphics Design

- Custom design of display graphics
- Custom software interface protocol



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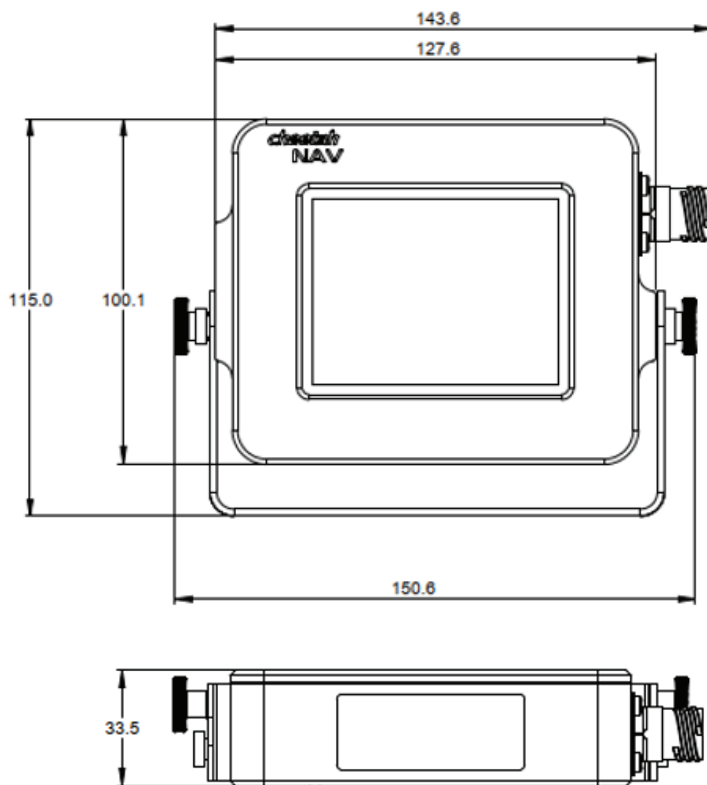
CheetahNAV

Tactical Navigation System



MECHANICAL DIMENSIONS

Standard adjustable mechanical bracket option



SPECIFICATIONS

| | |
|-------------------------------|---|
| Temperature (Operational) | -20°C to +71°C |
| Temperature (Storage) | -40°C to +80°C |
| Vibration | MIL-STD810G 'Operational Service' as for Category 20 Ground Vehicles. MIL-STD810G 'Transportation' as for Category 6 Large Assembly Cargo. |
| Shock | MIL-STD810G 'Procedure I – Functional Shock' of 40g as for Ground Equipment. |
| Humidity | MIL-STD810G 'Procedure I – Natural' of 80% RH at 40°C. |
| Sand and Dust | MIL-STD810G 'Dust (<150um) Procedure' as for Ground Vehicles. |
| Electromagnetic Compatibility | MIL-STD-461F. |
| Altitude | MIL-STD810G 'Procedure I – Storage/Air Transport' up to 15 km (50,000 feet). |
| Input Voltage | 12V DC (require filtered power). |
| MTBF | 15,000 hours @55°C G _M |

Video Processing Options

- ▶ The ST Micro processor family STM32H7 processor provides the option for decoding Moving JPEG (MJPEG) video at 240x320 resolution and 30 fps, providing smoother video playback.

Environmental

- ▶ Military Standard compliance
- ▶ Industrial Standard option

Ordering Options (Generic Ordering code = CSX-I-F-T-R)

- ▶ X: Variant (1, 2) 1=Standard Graphics, 2=Video Graphics
- ▶ I: Interface R=RS422, C=CAN, E=PoE Ethernet
- ▶ F: Function D=Driver, G=Gunner, C=Crew, R=Reverse
- ▶ T: Touch Panel 0=No Touch, 1=Resistive Touch
- ▶ R: Ruggedization Level 1=Industrial, 2=Military
- ▶ **Standard Military Navigation Driver Display** = CS1-IR-FD-T0-R2
 - Navigation Driver Display, military ruggedization, no touch
- ▶ **Industrial Reverse Display** = CS2-IE-FR-T1-R1
 - Industrial ruggedization with a touch