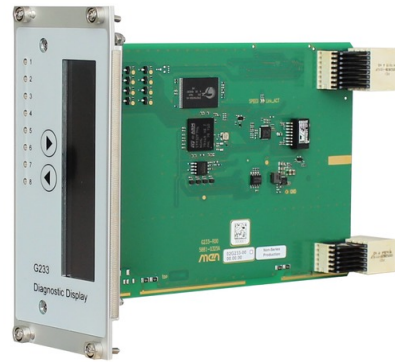


# G233

## Diagnostic Board with Front Display 3U CompactPCI Serial

- » *OLED mono-chrome display*
- » *256 x 64 pixels resolution*
- » *2 front panel buttons for user interaction*
- » *Ethernet host interface*
- » *Local web browser*
- » *8 user LEDs on the front panel*
- » *-40°C to +85°C screened*
- » *PICMG CPCI-S.0 CompactPCI Serial peripheral card*



### **Interactive OLED Display**

The G233 is a 3U CompactPCI Serial board featuring a 3.12" OLED display for showing diagnostic status and error messages. Two control buttons at the front panel can be used for user interactions, e.g. scrolling or doing set-up. Eight programmable LEDs are provided for user-defined functions.

### **Simpler Troubleshooting and Less Downtime**

The G233 provides an easy to use, interactive diagnostics interface suitable for train maintenance personnel during troubleshooting or performing routine service checks. The displayed information is fully customizable. Any status or fault message visible to the host CPU can be sent to the G233 and shown on the display or represented by the LEDs.

### **Shorter Development and Integration Time**

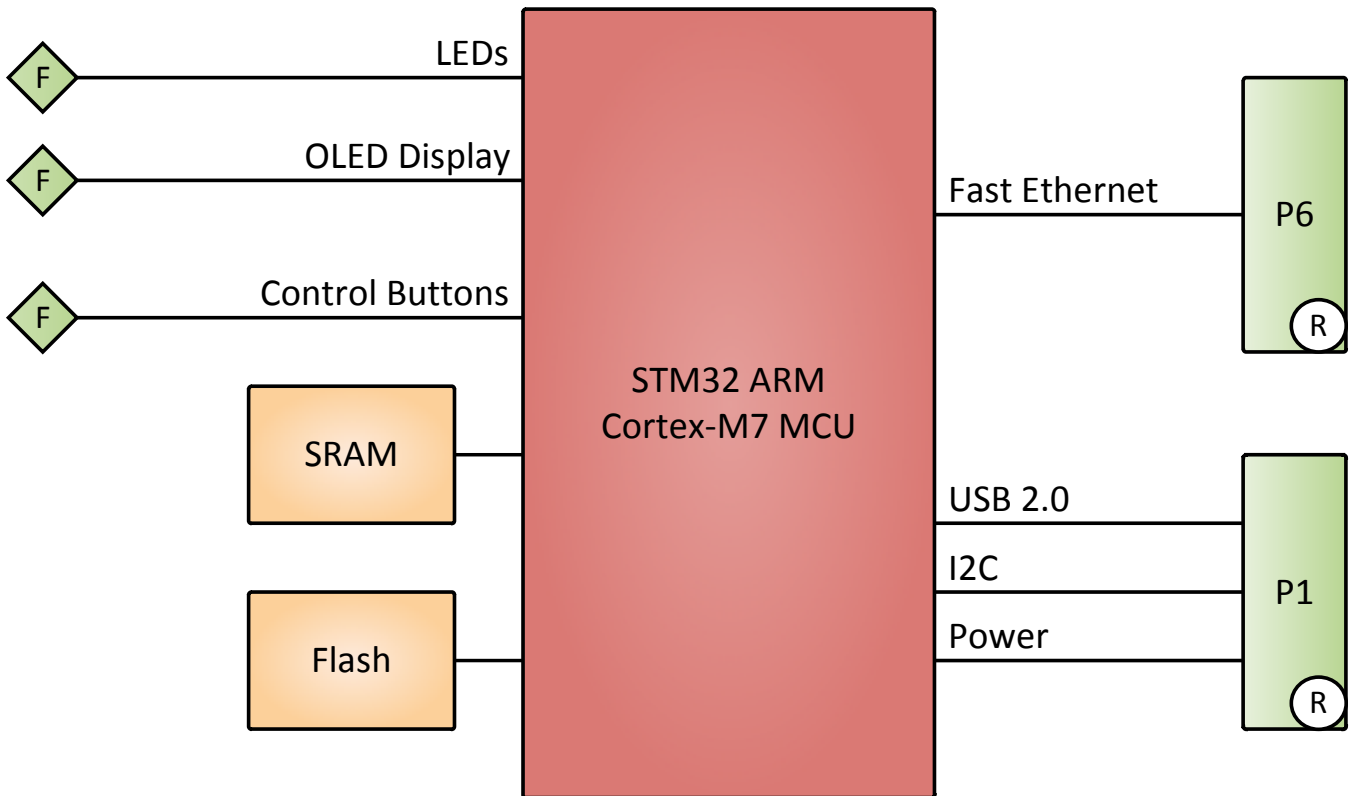
The native onboard web browser communicates via backplane Ethernet interface with a web server running on the host CPU. Only an HTTP web server software is required on the host computer which facilitates integration and set-up.

### **Full Configuration of Displayed Data and Front Panel LEDs**

The displayed data is controlled by writing to an HTML file. Any status or error message available to the CPU can be shown on the front panel.

### **Suited for Harsh and Mobile Environments**

The G233 is designed for -40 to +85°C operating temperature and conformal coated in order to be used also in harsh and mobile environments.



**Display**

- OLED
- Screen size: 3.12"
- Resolution: 256 x 64 pixels
- Black background
- Emitting Color: Blue

**MCU**

- STM32 ARM 32-bit Cortex-M7
- Running embedded RTOS with web browser

**Memory**

- Flash
  - 8 MB
- SRAM
  - 2 MB

**Front Interfaces**

- Eight user LEDs
- Two control buttons

**Backplane Standard**

- Compliance with CompactPCI Serial PICMG CPCI-S.0 Specification
- Host connection:
  - One 100BASE-T Ethernet channel
  - One OTG USB channel
  - One I2C channel

**Electrical Specifications**

- Supply voltage
  - +12 V (-5%/+5%)
- Power consumption
  - 1.75 W typ.

**Mechanical Specifications**

- Dimensions
  - 3U, 12 HP
- Weight
  - 150 g (model 02G233-00)

**Environmental Specifications**

- Temperature range (operation)
  - -40°C to +85°C (qualified components), compliant with EN 50155, class TX (model 02G233-00)
- Temperature range (storage): -40°C to +85°C
- Cooling concept
  - Air-cooled, airflow 1.0 m/s min.
- Humidity: EN 50155:2007 (+25/+55 °C, 90-100 %)
- Altitude: -300 m to +3000 m
- Shock: EN 61373:2010
- Vibration: EN 61373:2010
- Conformal coating

**Reliability**

- MTBF: 3 074 049 h @ 40°C according to IEC/TR 62380 (RDF 2000) (model 02G233-00)

**Safety**

- Electrical Safety
  - EN 50155:2007
  - EN 50153:2014
  - EN 50124-1:2001 + A1:2003 + A2:2005

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## **EMC**

- EN 50121-3-2:2015 (radiated emission)
- EN 50121-3-2:2015 (conducted emission)
- EN 50121-3-2:2015 (EMC immunity)

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## **Software Support**

- OS-independent

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### **Up-to-date information, documentation and ordering information:**

[www.men.de/products/g233/](http://www.men.de/products/g233/)

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