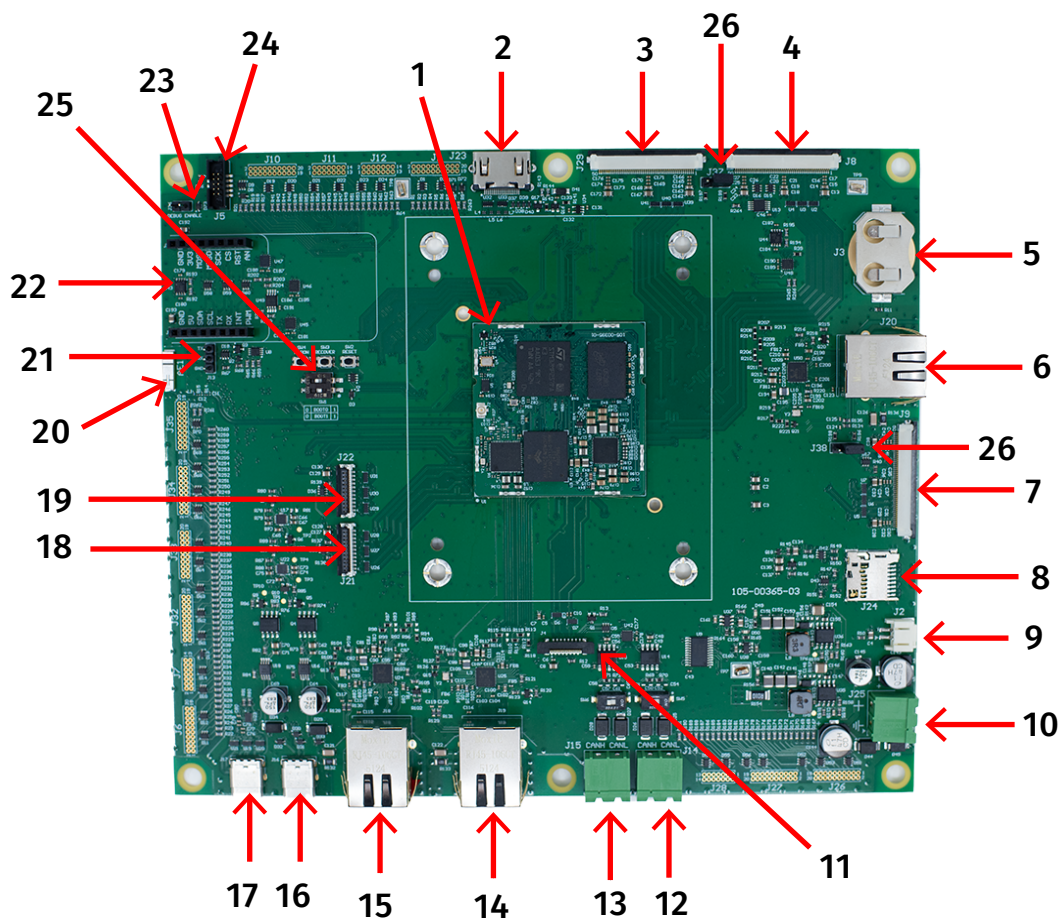




## Features

- |                                         |                                                |
|-----------------------------------------|------------------------------------------------|
| 1. SOM (U1)                             | 21. Debug Console (J13)                        |
| 2. <del>HDMI output</del> (J23) *       | 22. Mikro Click Header (J30 and J31)           |
| 3. <del>LVDS B</del> (J29) *            | 23. JTAG Mode Jumper (J36)                     |
| 4. LVDS A (J8)                          | 24. JTAG Connector (J5)                        |
| 5. RTC Battery – CR2032                 | 25. Boot Switches (SW1)                        |
| 6. Ethernet 2 (J20) Pending Validation  | 26. Touch Controller I2C jumpers (J37 and J38) |
| 7. MIPI-DSI (J9)                        |                                                |
| 8. Micro SD (J24)                       |                                                |
| 9. <del>Battery Input</del> (J2) *      |                                                |
| 10. 12V Power In (J25)                  |                                                |
| 11. PCIe (J4)                           |                                                |
| 12. CAN Bus A (J14)                     |                                                |
| 13. CAN Bus B (J15)                     |                                                |
| 14. Ethernet B (J19)                    |                                                |
| 15. Ethernet A (J18)                    |                                                |
| 16. USB Type C 3.0 Dual Role A (J16)    |                                                |
| 17. USB Type C 3.0 Dual Role C (J17)    |                                                |
| 18. MIPI-CSI Input 1 (J21)              |                                                |
| 19. <del>MIPI-CSI Input 2</del> (J22) * |                                                |
| 20. Wi-Fi / Bluetooth Antenna (AE1)     |                                                |

\* Not supported in this design

### Host PC Setup (Serial Console)

To monitor boot messages and interact with the system, configure your terminal software (such as PuTTY, Tera Term, or MobaXterm) with the following settings:

- **Baud Rate: 115200**
- **Data Bits: 8**
- **Parity: None**
- **Stop Bits: 1**
- **Flow Control: None**

### Boot Device Selection Table

| Boot Mode        | BOOT0 | BOOT1 |
|------------------|-------|-------|
| UART and USB     | 0     | 0     |
| SD-Card (SDMMC2) | 0     | 1     |
| eMMC (SDMMC1)    | 1     | 0     |
| Development Boot | 1     | 1     |

### Hardware Setup

#### Connect the Debug Console Cable

Use the provided USB-to-TTL (3.3V) cable to the debug console port (J13) on the carrier board to your host PC. This will allow you to monitor boot messages and interact with the system via a serial terminal.

#### Configure Boot Switches

The carrier board includes boot configuration switches that determine which device the system boots from when power is applied. You can change the boot source from eMMC to microSD or the UART/USB recovery bootloader.

1. **UART and USB:** This recovery mode uses STM32CubeProgrammer to boot the system via USB or serial connection. It allows re-flashing precompiled images onto eMMC or SD cards, making it ideal for system recovery, firmware updates, or initial image deployment.
2. **Boot from microSD Card:** In this mode, the system boots from an external microSD card inserted into the carrier board. This option is useful for developers who need to quickly switch between different OS images or test configurations without altering the eMMC contents.
3. **Boot from eMMC (Default)** – This is the standard and fastest boot method. The system uses the on-board eMMC storage, which is non-volatile and optimized for performance. It is the preferred mode for normal operation and production environments.
4. **Development Boot:** Select Development Boot to load and run firmware directly on the Cortex M33 core. This mode is not currently supported by Cargt examples.

### Connect 12V Power

Plug the supplied 12V DC power adapter into the power input jack (J25) on the carrier board to boot the device. Monitor the serial terminal for output.

### Support / Next Steps

Check out the development center for detailed information

<https://dev.cargt.com>

