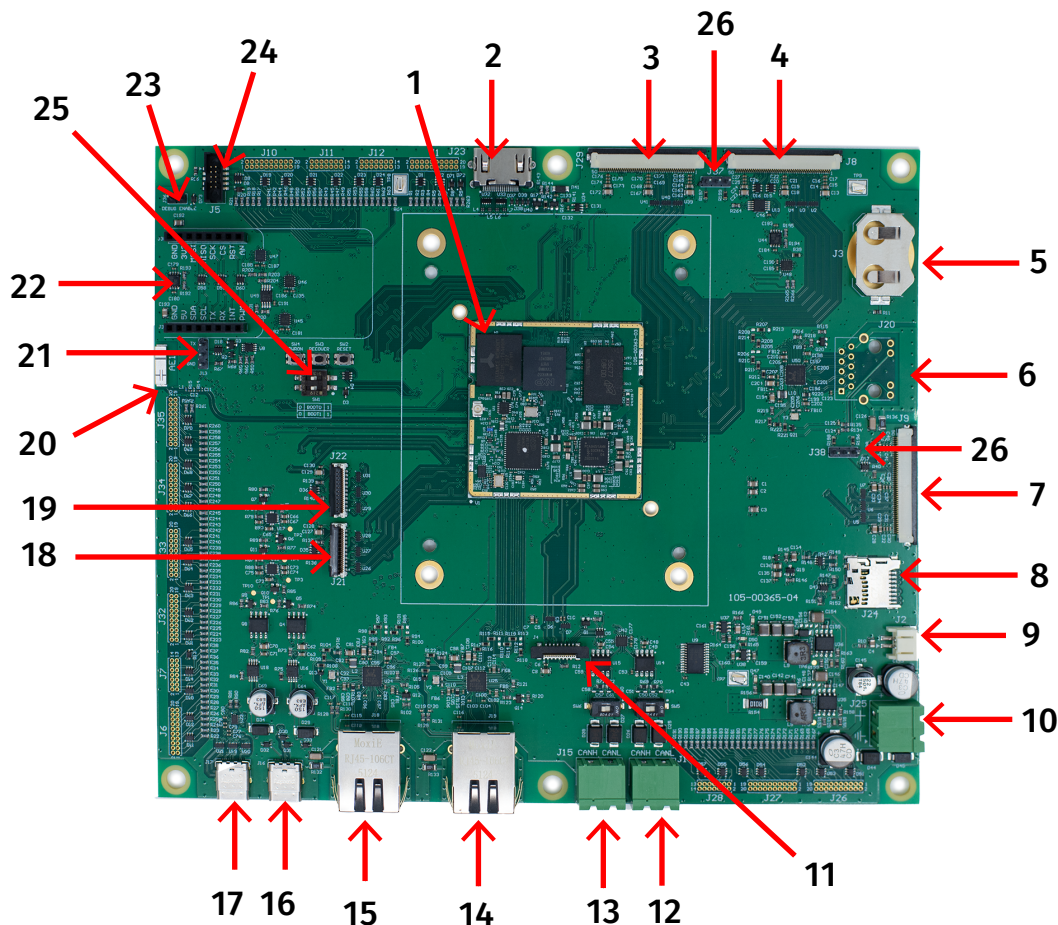




Features

- | | |
|--------------------------------------|--|
| 1. SOM (U1) | 21. Debug Console (J13) |
| 2. HDMI output (J23) | 22. Mikro Click Header (J30 and J31) |
| 3. LVDS B (J29) | 23. JTAG Mode Jumper (J36) |
| 4. LVDS A (J8) | 24. JTAG Connector (J5) |
| 5. RTC Battery – CR2032 | 25. Boot Switches (SW1) |
| 6. Ethernet-G (J20) | 26. Touch Controller I2C jumpers (J37 and J38) |
| 7. MIPI-DSI (J9) | |
| 8. Micro SD (J24) | |
| 9. Battery Input (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 2.0 Dual-Role A (J16) | |
| 17. USB Type C 2.0 Dual-Role C (J17) | |
| 18. MIPI-CSI Input 1 (J21) | |
| 19. MIPI-CSI Input 2 (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
Boot from Internal Fuses	0	0
USB / Serial Download	0	1
eMMC (USDHC3)	1	0
MicroSD Card (USDHC2)	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, the USB/Serial bootloader for recovery, or use internal fuses to select the boot device.

1. **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.
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. **USB / Serial Bootloader:** This recovery mode uses NXP's UUU manufacturing tool 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.
4. **Boot from Internal Fuses:** Internal One-Time-Programmable fuses can be set on the part. This mode will read those fuses to determine the boot method.

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>

