Enabling Wireless M2M - IoT

Embedded 5G Modem

MDG230-0G001

KEY FEATURES

- ✓ 5G NR (FR1) / 4G LTE
- ✓ Standalone network-ready
- ✓ 4FF Nano SIM slot
- ✓ Compact Board-to-Board design for system Integration

INTRODUCTION

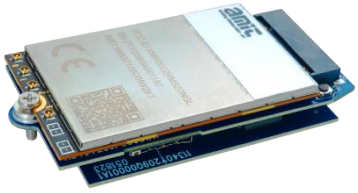
The MDG230 is an embedded 5G modem with USB 3.1 interface through its board-to-board connector. It operates as an Ethernet over USB end device that offers 5G connectivity once a SIM card is inserted and pre-configured through user-friendly web GUI. With its intelligent connection monitoring mechanism, it can provide more reliable 5G connection for mission-critical applications.

APPICATION

- Industrial PC
- Retail / Point-of-Sales
- Single Board Computer
- Video Surveillance DVR
- Professional A/V solution

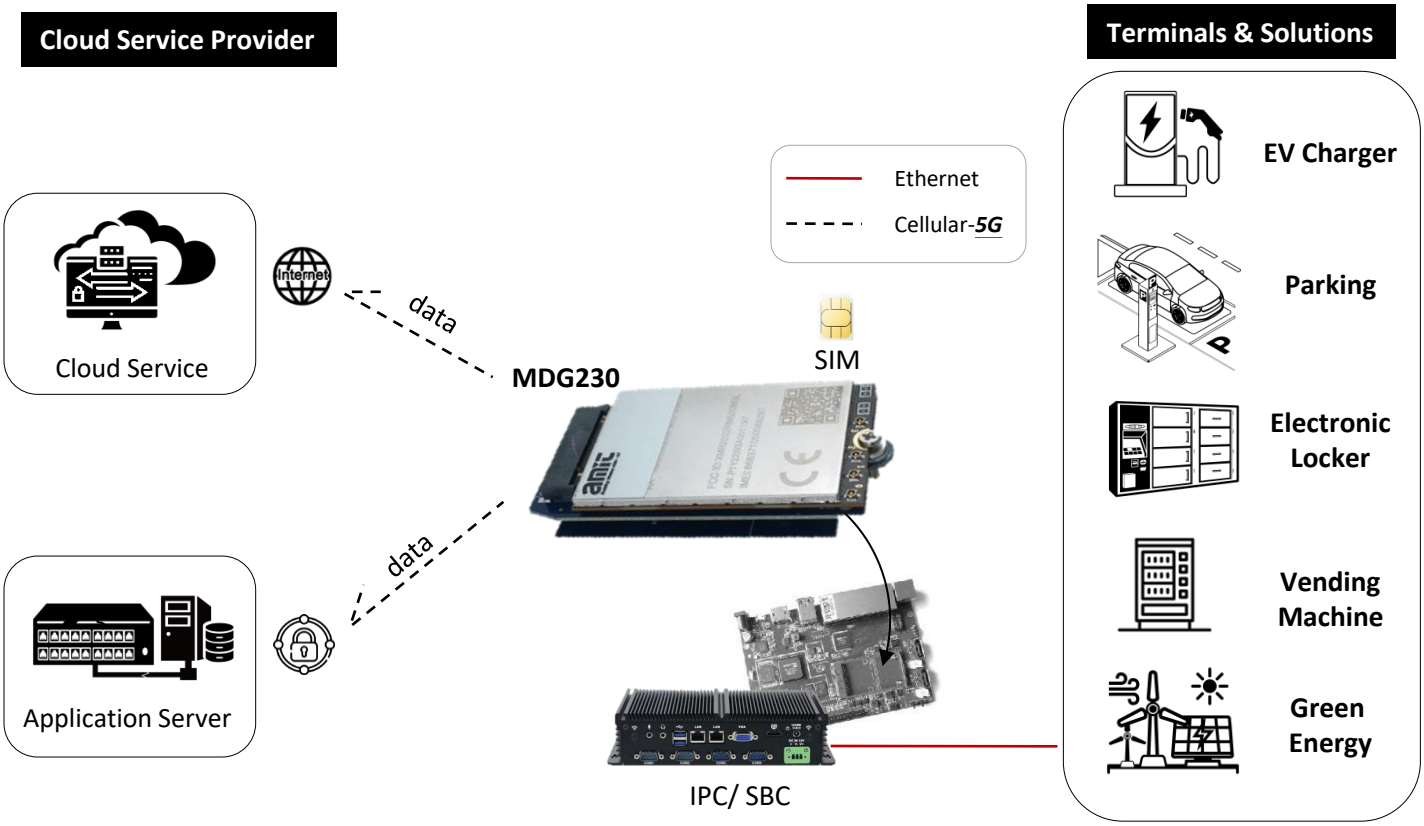
BENEFITS

1. Carrier approval* - cost saving and time-to-market
2. Plug and play - Linux kernel 5.0 & Windows 10, or higher version.
3. Flexible SIM selection – support internal SIM / external SIM / dual SIM failover



+ additional M.2 (3052 B-Key) adapter board

DIAGRAM



SPECIFICATION

Device Interface

- **5G NR Module:** 1*5G NR FR1 (sub 6GHz)
- **3GPP:** Release 16
- **SIM**:1* 4FF Nano-SIM slot (push-push type) for 1.8V / 3V SIM/USIM,
  support dual SIM failover through Board-to-Board I/F.
- **5G NR Band (FR1)**: n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 29/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 75/ 76/ 77/ 78/ 79
- **4G LTE Band**: B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 29/ 30/ 32/ 34/ 38/ 39/ 40/ 41/ 42/ 43/ 46(LAA)/ 48/ 66/ 71
- **WCDMA Band**: B1/ 2/ 4/ 5/ 8/ 19
- **Data Interface**: USB 3.1 through board-to-board connector
- **Power Input:** DC 3.3V through board-to-board connector
- **Antenna:**
  4 *MHF4 receptacle connectors for 5G antenna connection

WAN & Uplink

•**WAN**: NAT / Modem mode

Control Interface

- **Web-based GUI**: Configuration, Status monitoring
- **AT Command**: 3GPP TS 27.007 AT commands

Supported OS

- **Linux**: Linux kernel 5.0 or higher
- **Windows**: Windows 10 or higher;
  MDG230 driver installation is required.

Environment

- **Operation Temperature*:** -30°C-75°C
- **Storage Temperature:** -40°C-85°C
- **Humidity:** 10%~95% (non-condensing)
- **Dimension:** 60(L)x30(W)x8.6(H) mm

*Certification**

- FCC
- PTCRB

*Carrier Approval**

- AT&T
- Verizon

Standard Package

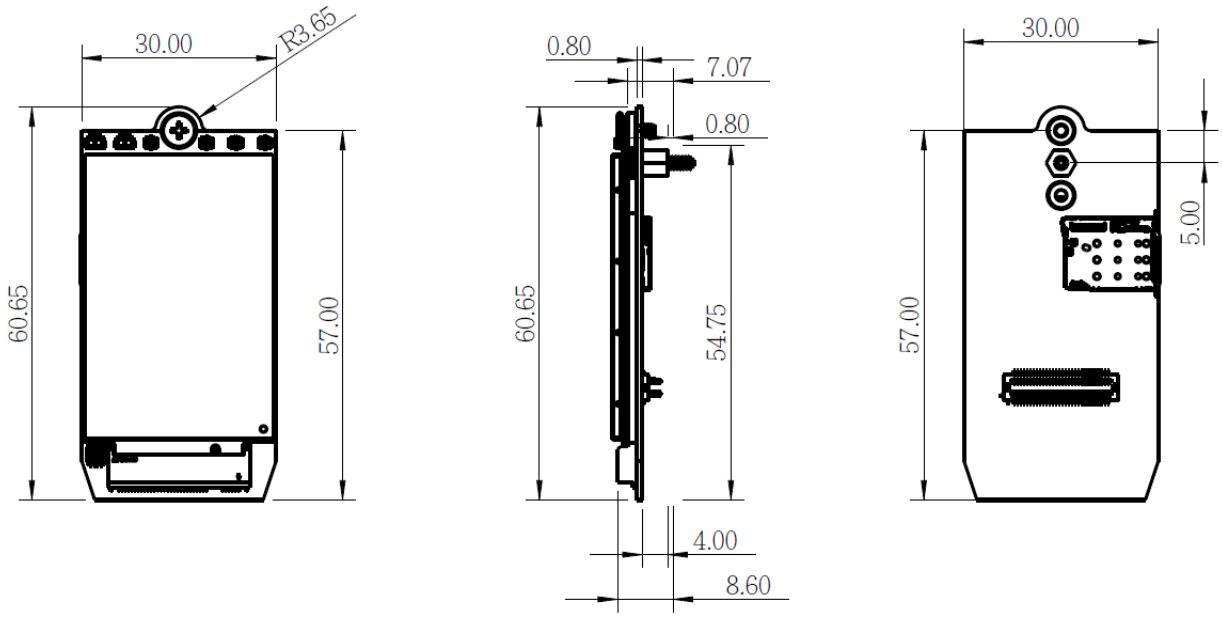
- 1*MDG230, 1* M.2 Adapter Board

Comment:
1.Linux kernel version 4.x or lower support case-by-case
2.Specifications are subject to change without prior notice
3.*Under development/in progress

MECHANIC DRAWING (dimension marked in millimeter)

- **MDG230**

•Bottom View

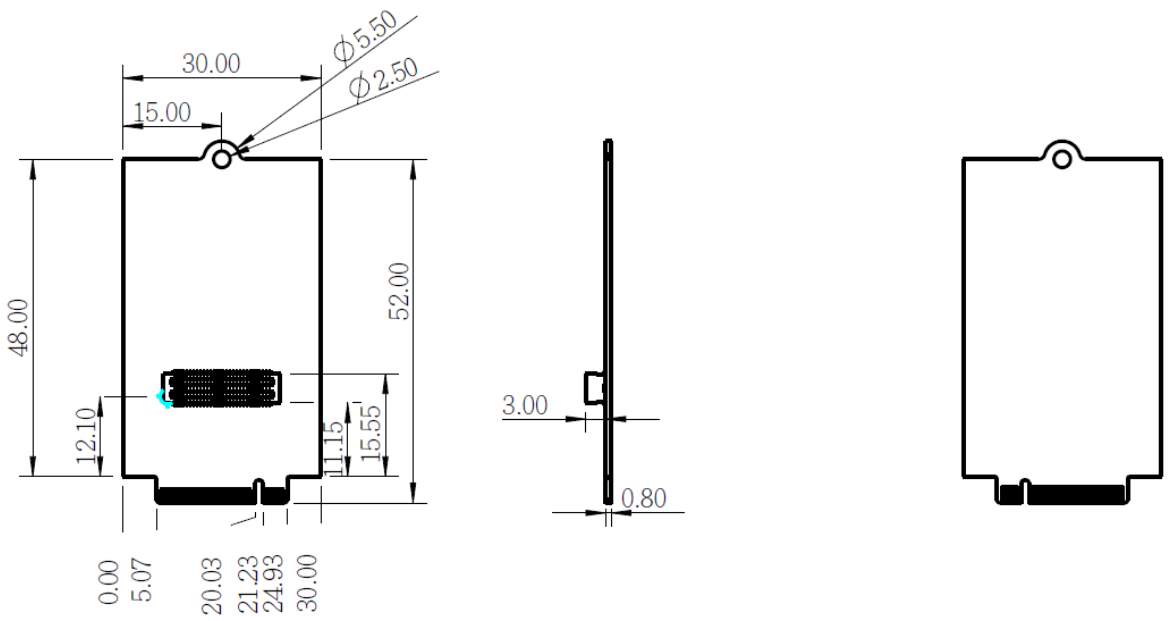


Note:

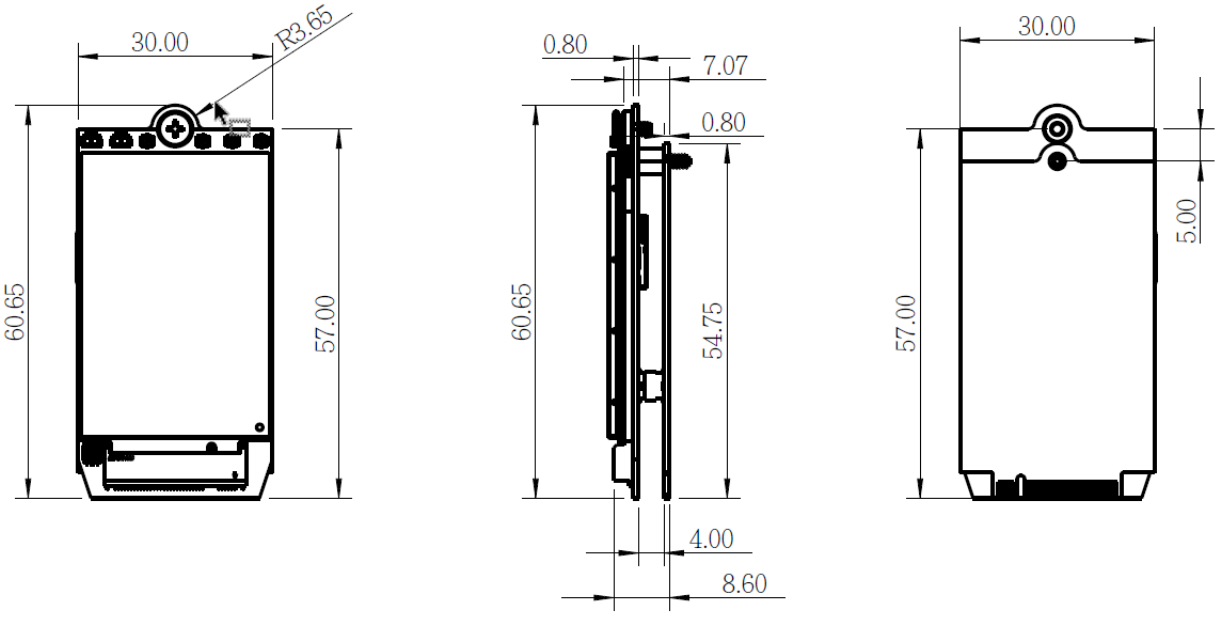
- Specifications are subject to change without prior notice.
- Additional thermal solution is required to get well performance.
- Certification and carrier approvals are under implementation, check with sales for the availability.

Adapter Board

• M.2 Adapter (MCG230)



• MDG230 + M.2 Adapter (MCG230)



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