# ICR-2734

## Industrial 4G Router & IoT Gateway




- LTE Cat.4 with 3G/2G fallback
- 2× SIM with cover
- 2× Ethernet 10/100 Mbps
- USB Host 2.0
- Optional dual-band Wi-Fi 802.11n
- 4 GB eMMC storage for customer applications
- Metal or plastic case, DIN Rail mounting
- Wide operational temperature range
- Backup real-time clock and Sleep mode
- **IEC 62443-4-2 SL 2 certified** (S1 versions)

Project based customization: Last-gasp Supercapacitor, TPM 2.0, Chip SIM (MFF2)

## Ordering Information

| Model no. - Order Codes | | REGION | 2× Ethernet 10/100 Mbps | 2× SIM | 1× DIV 1× ANT | WiFi | 1× USB Host 2.0 | Metal Case | Plastic Case | Accessories | IEC 62443-4-2 S1 Router |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ICR-2734 | EMEA* | ✓ | ✓ | ✓ | | ✓ | ✓ | | | |
| | ICR-2734P | EMEA* | ✓ | ✓ | ✓ | | ✓ | | ✓ | | |
| | ICR-2734A01 | EMEA* | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ EU Power Supply | |
| | ICR-2734PA01 | EMEA* | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ EU Power Supply | |
| | ICR-2734A02 | EMEA* | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ UK Power Supply | |
| | ICR-2734PA02 | EMEA* | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ UK Power Supply | |
| | ICR-2734W | EMEA* | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | ICR-2734WP | EMEA* | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | |
| | ICR-2734WA01 | EMEA* | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ EU Power Supply | |
| | ICR-2734WPA01 | EMEA* | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ EU Power Supply | |
| | ICR-2734WA02 | EMEA* | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ UK Power Supply | |
| | ICR-2734WPA02 | EMEA* | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ UK Power Supply | |
| | ICR-2734-S1 | EMEA* | ✓ | ✓ | ✓ | | ✓ | ✓ | | | ✓ |
| | ICR-2734A01-S1 | EMEA* | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ EU Power Supply | ✓ |
| | ICR-2734WA01-S1 | EMEA* | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ EU Power Supply | ✓ |

* - Router is compatible with cellular networks in the indicated region. Importer/operator needs to check locale legislation (standards, national Telecom approvals etc.) and compare with standards available for product if possible to operate the router in target region legally

## BASIC CHARACTERISTICS

The platform provides reliable cellular connectivity across multiple cellular technologies, depending on the selected part number. Engineered for mission-critical applications, the devices ensure high network availability for real-time remote monitoring, edge computing, precision process control, and large-scale IoT deployments.
Their robust mechanical design enables continuous operation in harsh industrial environments, making them ideal for manufacturing, transportation, utilities, and other demanding applications.

## ENHANCED CYBERSECURIT Y

Certified according to IEC 62443-4-2 Security Level 2 (SL 2), S1 versions provide enhanced cybersecurity for industrial applications. Enhanced cybersecurity features are available on selected router models. All models can be equipped with a TPM 2.0 (Trusted Platform Module) for secure cryptographic key storage and device integrity verification. Additional security measures are implemented through the "S1" production process.
Standard versions without the "S1" designation do not carry this certification and do not include the full set of enhanced cybersecurity features.

TPM 2.0


All product specifications are subject to change without notice.
Last updated: 18-Nov-2026

# ICR-2734

## HARDWARE AND INTERFACE

Built on the proven ARM9 architecture, the platform features a 32-bit ARM926EJ-S processor running at 600 MHz, combined with 128 MB of RAM and 4 GB of eMMC storage. The available storage includes 838 MB for Router Apps and 512 MB for customer data.

The hardware configuration provides two 10/100 Mbps Ethernet ports, two SIM card slots for cellular redundancy, and a USB 2.0 Host interface. A TPM 2.0 security module is integrated, providing hardware-based security capabilities.




## WIRELESS TECHNOLOGY

LTE Cat.4 cellular connectivity provides download speeds of up to 150 Mbps and upload speeds of up to 50 Mbps, with fallback to legacy 3G (UMTS/HSPA) and 2G (EDGE/GPRS) networks for extended coverage and connectivity. Models with the "W" suffix additionally support local wireless connectivity via dual-band Wi-Fi 5 (IEEE 802.11a/b/g/n/ac, 2.4 GHz and 5 GHz).




## SOFTWARE

ICR-OS is Advantech's Linux-based operating system, specifically developed for ICR-series industrial cellular routers. It provides comprehensive networking, connectivity and security features, managed through an intuitive web-based graphical user interface (GUI).

The operating system includes advanced networking capabilities such as DHCP, NAT, VLAN, QoS, routing, VPN (WireGuard, OpenVPN, IPsec), firewall, encryption and IPv6 support. An open platform for custom scripting and Router Apps enables users to extend router functionality with modular applications without modifying the core firmware.

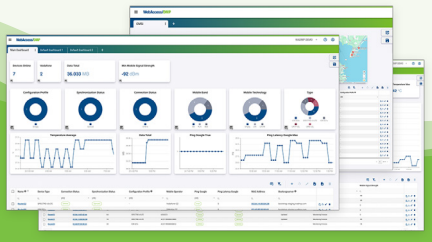
The platform supports custom C++ and Python applications, allowing users to implement application-specific functionality and industrial integrations.

ICR-OS RouterApp python C++

## DMP CENTRAL ROUTER & VPN MANAGEMENT SYSTEM

**POWERFUL**, **FLEXIBLE**, and **SECURE** - Advantech DMP is a centralized platform for remote management, monitoring and maintenance of industrial cellular routers. Configure devices, deploy firmware updates, manage Router Apps and monitor your entire router fleet from a single interface – without on-site visits. This software tool enables centralized management, provisioning, and monitoring of multiple routers, simplifying the process of scaling and maintaining a network infrastructure or centralize management of VPN connections.
Zero-touch provisioning, REST APIs and AI integration simplify deployment, enable integration with external systems and support intelligent network management.

**VPN MANAGEMENT & REMOTE ACCESS** - Simple, secure and effortless. Remotely access routers and connected devices without complicated VPN configuration or manual setup. Secure VPN connections are managed centrally and powered by the efficient WireGuard VPN technology.
Available as a cloud-hosted SaaS solution or bare-metal on-premises deployment. Get started for free - no payment details required.



TRY IT OUT
www.wadmp3.com
FREE

## ICR-2734

# Specifications

| System | |
|---|---|
| CPU | ARM926EJ-S, 600 MHz |
| Memory | RAM - 128 MB<br>eMMC - 4096 MB<br>(838 MB for Router Apps, 512 MB for customer data) |
| Watchdog | HW Watchdog |
| RTC | Battery backup RTC |
| TPM* | Trusted Platform Module (TPM) 2.0 |
| Supercap* | Last-gasp Supercapacitor |
| **Interfaces** | |
| Ethernet | 2× Ethernet, RJ45, 10/100 Mbps, Isolation 1.5 kV |
| USB | 1× USB 2.0 Host Connector |
| Reset Button | Reboot / Factory reset |
| LED Indicators | System, Signal strength, Data activity, SIM1, SIM2, 2G/3G/4G technology, User, ETH |

* Project-based customization

| Environmental | |
|---|---|
| Power Supply | 9 – 48 V DC (2-pin terminal block) |
| Consuption | Idle 2.3 W / Average 4 W / Peak 7.7 W |
| Sleep Mode | Yes, 3 mW |
| Operating Temperature | -40 to +75 °C |
| Storage Temperature | -40 to +85 °C |
| Humidity | 5 to 95 % |
| IP Cover | IP30 |
| **Physical Characteristics** | |
| Dimensions<br>(without DIN holder) | Metal Case: 42 × 80.3 × 113.2 mm<br>Plastic Case: 51.4 × 83.8 × 117 mm |
| Enclosure | Metal Case with grounding screw or Plastic Case |
| Mounting | DIN-Rail |
| Weight | Metal Case: 260 g<br>Plastic Case: 200 g |

| WiFi - ICR-2734Wxxxx | |
|---|---|
| Antenna | 1× R-SMA connector |
| Standards | IEEE802.11 ac/a/b/g/n 2.4 GHz / 5 GHz |
| Security | WEP, TKIP, AES, WPA, WPA2, WPA3, 802.1X |
| Modes | Access Point (up to 8 clients), Station, Multirole STA & AP |

| Cellular Interface | |
|---|---|
| SIM Slots | 2× SIM (Mini SIM – 2FF) with cover |
| Antennas | 2× SMA connector (1× Main, 1× Diversity) |
| LTE Parameters | Supported FDD frequencies: B1 (2100 MHz), B3 (1800 MHz), B5 (850 MHz), B7 (2600 MHz), B8 (900 MHz), B20 (800 MHz), B28 (700 MHz)<br>Transfer rate: 150 Mbps (DL), 50 Mbps (UL) |
| HSPA+/UMTS Parameters | Supported frequencies: B1 (2100 MHz), B3 (1800 MHz), B8 (900 MHz)<br>Transfer rate: 14.4 Mbps (DL), 5.76 Mbps (UL) |
| EDGE/GPRS Parameters | Supported frequencies: B2 (1900 MHz), B3 (1800 MHz), B5 (850 MHz), B8 (900 MHz)<br>Transfer rate: 237 kbps (DL), 237 kbps (UL) |

| Standards & Regulations | |
|---|---|
| Radio | EN 301 511, EN 301 908-1, EN 301 908-2, EN 301 908-13, EN 301 893, EN 300 328 |
| EMC | EN 301 489-1, EN 301 489-17, EN 301 489-52, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-11, IEC 61000-6-2, IEC 61000-6-3 |
| Safety | IEC 62368-1, IEEE 802.3 |
| Cybersecurity | IEC 62443-4-2 SL 2 certified (S1 versions), EN 18031-1 |
| Transportation | E-mark (not applicable to WiFi option ICR-2734Wxxx) |
| National | CE, UKCA |
| Mechanical | EN 60529, EN 60068-2-27, EN 60068-2-64 |
| Climatic | EN 60068-2-1, EN 60068-2-2, EN 60068-2-14, EN 60068-2-30 |
| Environmental | REACH, RoHS3, WEEE |

| Software | |
|---|---|
| Operating System | ICR-OS (Linux based) |
| SW Customization | Router App |
| Application Development | **Open Linux, *Python, BASH, C/C++ |
| Industrial Protocols and IoT | *Modbus RTU/TCP gateway, *IEC 60870-5-101 to 104 gateway, *DF1, *DNP3, *MQTT, *LWM2M |
| Networking Features and Protocols | DHCP, NAT/PAT, SSH, VRRP, PPPoE, SNMP, SMTP, Dynamic DNS client, DNS proxy, VLAN, QoS, *DMVPN, NTP Client/Server, *Routing protocols RIP, BGP, OSPF, IS-IS, NHRP, Backup Routes, Port Forwarding, Host Port Routing, Ethernet Bridging, Load Balancing, IPv6 Dual Stack |
| Security | HTTPS, SSH, SFTP, DMZ, Firewall (IP Filtering, MAC address filtering, Inbound and outbound Port filtering)<br>VPN Tunneling – WireGuard, OpenVPN, IPsec with IKEv1 and IKEv2, GRE, L2TP, PPTP<br>Authentication – RADIUS, TACACS+, 2FA, *SCEP<br>**Encryption – DES, 3DES, AES, RSA up to 3072, Ed25519, MD5, SHA<br>S1 Routers only: IEC 62443-4-2 SL2 certified, Secure Boot, Encrypted firmware image, Read-only filesystem, Integrity check, Advanced Intrusion Detection Environment (AIDE) |
| Firmware Management | Automatic firmware updates – server, locally via LAN or remotely via WAN<br>Over-the-Air cellular module firmware updates |
| Diagnostic/Log | Status – Signal Strength, Data Usage<br>One CLICK report – Current Configuration, Factory Identification, Routing Table<br>Log – System Log, Reboot Log, Kernel Log<br>Remote Diagnostics (via SSH) |
| Event Engine | **StartUp script & Up/Down script (Own rules based on Digital Inputs, Network Parameters, Data Usage, Timer, Power, Device Temperature)<br>Report Types: SMS, *email, *SNMP Trap, *Event notificator |
| Configuration | Web server, SSH, Four configuration switchable profiles, Automatic configuration update from server, Backup & Restore configuration |
| Advanced Software Tools | DMP – Remote Device Provisioning, Monitoring, VPN & Management Platform |

*Functionality is available with the installed Router App **Functionality may be limited for S1 Router (ICR-2734A01-S1, ICR-2734WA01-S1)

# Accessories

| | | Included in the package | | | | | | Sold Separately |
|---|---|---|---|---|---|---|---|---|
| **Part Number** | **Description** | ICR-2734(-S1)<br>ICR-2734W | ICR-2734P<br>ICR-2734WP | ICR-2734A01(-S1)<br>ICR-2734WA01(-S1) | ICR-2734PA01<br>ICR-2734WPA01 | ICR-2734A02<br>ICR-2734WA02 | ICR-2734PA02<br>ICR-2734WPA02 | |
| BB-CON-WR2 | 2-pin PWR connector | ✓ | ✓ | ✓ (Mounted on PSU) | ✓ (Mounted on PSU) | ✓ (Mounted on PSU) | ✓ (Mounted on PSU) | ✓ |
| BB-SBD40 | DIN clip | ✓ | | ✓ | | ✓ | | ✓ |
| BB-SBD40P | DIN clip | | ✓ | | ✓ | | ✓ | ✓ |
| BB-KD-ETH | Ethernet cross cable | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| OPT1-RPS-1212-EU | Power Supply, 12V/1A, Open wires, EU plug | | | ✓ (Mounted PWR connector) | ✓ (Mounted PWR connector) | | | ✓ |
| OPT1-RPS-1212-UK | Power Supply, 12V/1A, Open wires, UK plug | | | | | ✓ (Mounted PWR connector) | ✓ (Mounted PWR connector) | ✓ |
| OPT1-ANT-WFT-06 | Antenna Wi-Fi, Terminal | | | ICR-2734WA01(-S1) | ICR-2734WPA01 | ICR-2734WA02 | ICR-2734WPA02 | ✓ |
| ANT-LTE5G-025 | Antenna 5G/LTE, Terminal | | | ✓ 2 pcs | ✓ 2 pcs | ✓ 2 pcs | ✓ 2 pcs | ✓ |

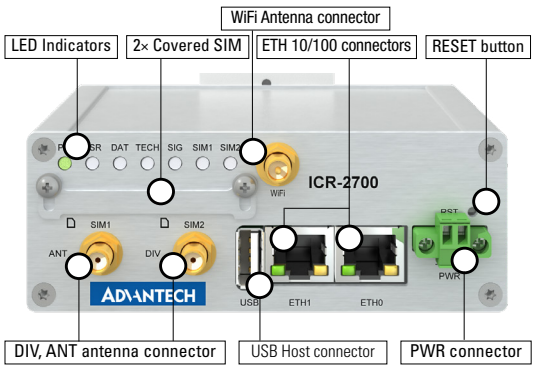
For more accessories (Antennas, Power Supplies) visit www.advantech.com

## ICR-2734

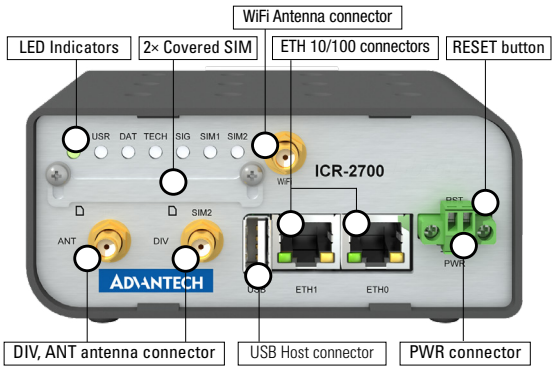
# Views

## FRONT VIEWS

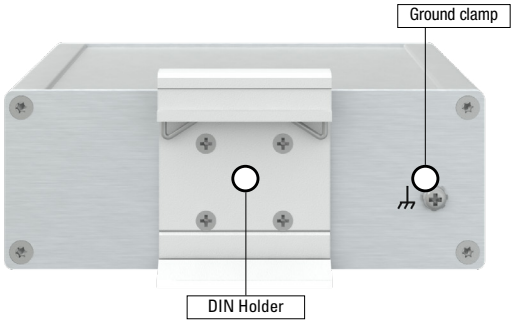
METAL VERSION

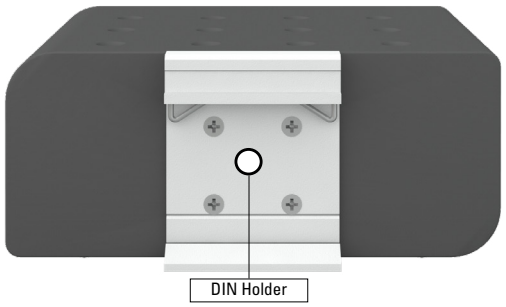



PLASTIC VERSION




## REAR VIEWS

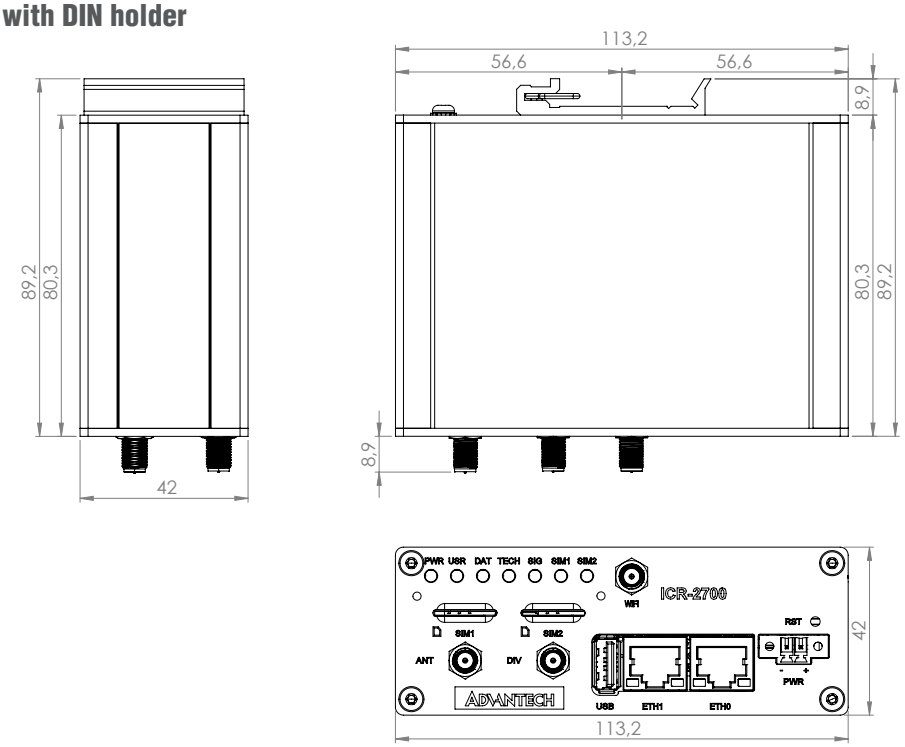


# Dimensions - Technical Drawing

Unit: mm

## Metal version with DIN holder




## Plastic version with DIN holder

