

FEATURE HIGHLIGHTS



Comprehensive Connectivity

- Worldwide 5G-NR, LTE-A and LTE Support
- Wi-Fi 802.11ac, MU-MIMO, Mesh
- 5x 1000 Base-TX RJ-45, 1x WAN, 4x LAN
- Proved Antenna Isolation

Powerful & Trusted Platform

- Quad-Core High-Performance Platform
- Secure VPN and Firewall Isolation
- Certified by TAICS Level2
- IEC 62443-4-2 Cybersecurity Compliance*

Quick Deployment & Management

- Various Remote Management Protocols

Compact and Robust

- Dimensions (mm): 145 x 120 x 46
- Industrial EMC
- -40°C to +75°C Temp. Operation
- NCC/TELEC, CE**/FCC** and Other

Certifications

Reliable & Redundant Design

- Power Redundancy with PoE PD and DC
- Wi-Fi Mesh Roaming with Conn. Redundancy
- Dual-SIM Backup
- Multi-WAN Failover

High Quality Guaranteed

- Made in Taiwan with 5 Years Warranty

* Coming soon
** By demand

PRODUCT DESCRIPTION

ATOP CWR, or Cellular Wireless Router, is an advanced device that allows a very tangible scale-up of almost any industrial wireless infrastructure. In addition to high EMC protection, wide-temperature operation, superb hardware and advanced features, CWR will provide high-speed internet access with load balancing and high degrees of security, high speeds and advanced configuration options.



Cellular 5G

Integrating a 5G module, CWR can provide 5G high-speed mobile network access, satisfying the new generation of IIoT applications.



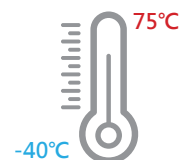
High-Performance

With its integrated IEEE802.11ac wave-2 feature and supporting 2x2 concurrent MU-MIMO RF, CWR provides high-throughput connections through 2.4 GHz and 5.0 GHz bands.



Quad-ARM Cortex A7 CPU

CWR integrates an industrial-grade Quad-core A7 ARM CPU, enabling the processing power you need to filter heavy traffic over firewalls, routing, forwarding and security measures.



Harsh Environments

ATOP CWR is proven to run at its maximum loading in the harshest EMC and climate environments.



Wi-Fi Mesh

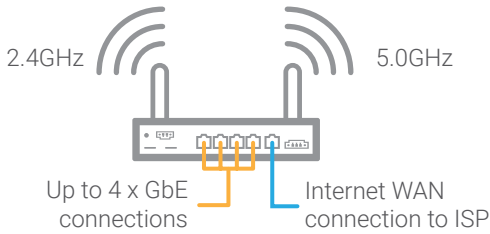
CWR's advanced chipset allows you to set up several devices as a mesh network, achieving a self-healing network that adjusts its topology based on need--perfect for dynamic applications.



Security

Integrating firewall, zone forwarding, and VPN features, ATOP CWR allows you to connect your industrial network to the internet without fearing intrusions into your organization data.

APPLICATION

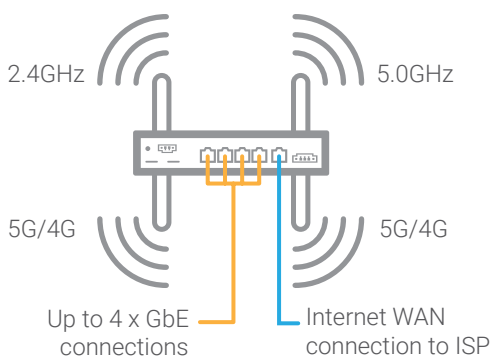
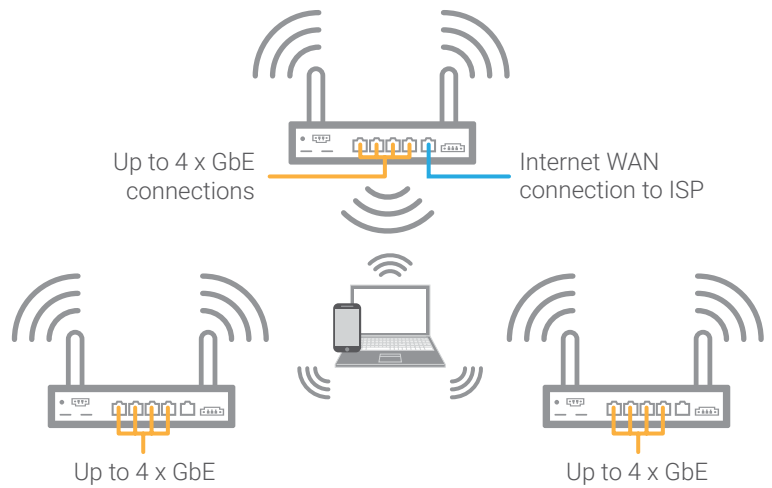


As a Wi-Fi DBDC Router

CWR5805's simplest operating mode is as a router/access point. Use it to connect to the internet through your broadband provider via PPPoE, Static IP or DHCP and provide Internet connection to Wi-Fi and wired clients. With CWR you can define your own wireless access policy and set up a Firewall and VPN connection based on your needs .

As a Wi-Fi Mesh Primary Router

CWR5805 is designed to act as a mesh router or as a mesh node, and the configuration of one or both radios to work in mesh mode takes barely any time. No more fussing with topology changes or complicated wiring! With Wi-Fi mesh, all nodes can communicate with each other and the transmission paths are dynamically adjusted if a change in signal strength or topology is detected. So, even if a device is temporarily inaccessible due to interference or position, the network will still work perfectly. Mesh functionality can be combined with all other features of CWR5805.

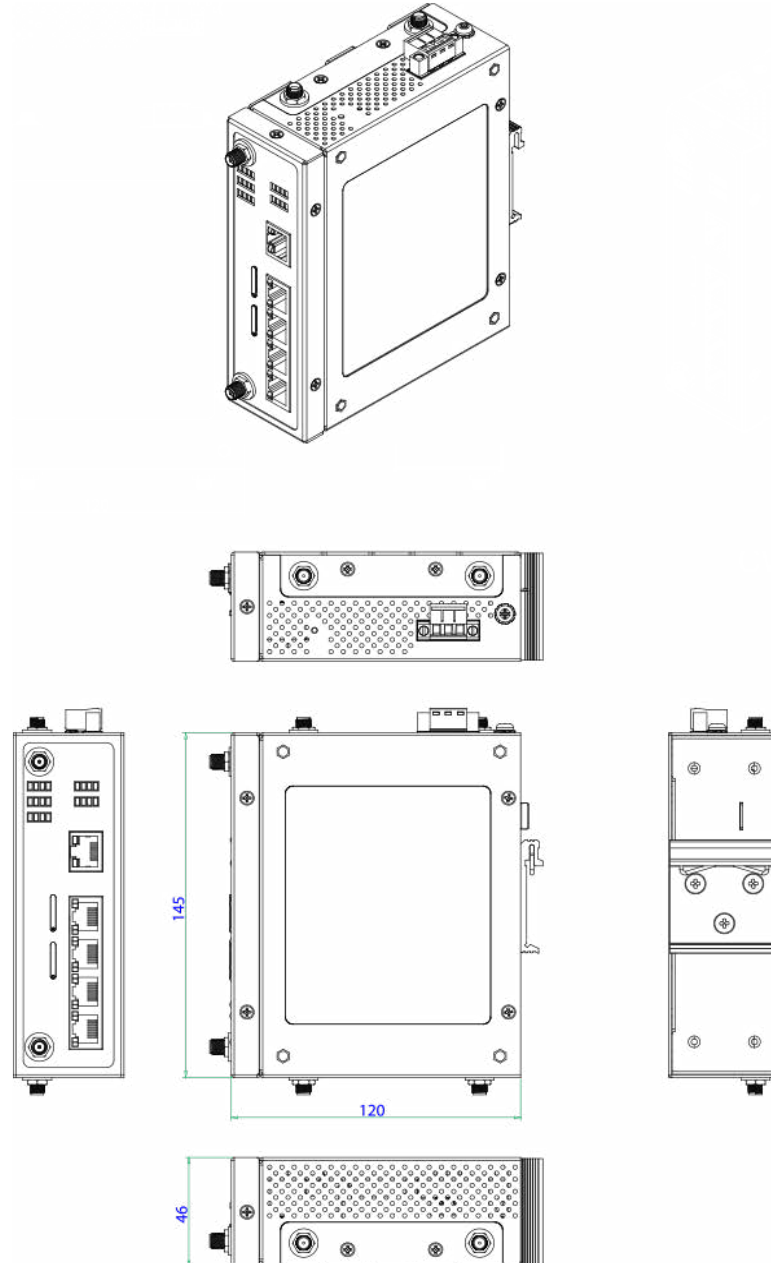


As a Cellular/Wired/Wi-Fi Router

CWR5805 allows you to easily set up a mesh Wi-Fi Router environment for providing broadband access to all users, in static or dynamic environments. Perfect for deployment on mass transit vehicles, CWR can access the internet via PPPoE, Wi-Fi and Cellular at the same time and provide smart traffic adjustment. The advanced dual-SIM configuration and hot-swappable design guarantees seamless 5G/4G connectivity throughout an entire shift.

Finally, these wide-ranging features are all enclosed in a rugged fanless design with operation temperatures from -40°C up to +75°C, to suit applications in any environment.

DIMENSIONS & LAYOUT



CWR5805 SERIES: 145 x 120 x 46 mm

SPECIFICATIONS

| Hardware Specifications | | | |
|----------------------------|--------------------------|--|---|
| Model Name | CWR5805 | | |
| SOC | | | |
| CPU | ARM Cortex A7, Quad-Core | | |
| Cellular Interface - 5G/4G | | | |
| Standard | 5G NR/LTE | | |
| | 4G | | |
| | 5G | | |
| Frequency Bands | 4G | | |
| | EU Ver. | FDD | B1/B3/B5/B7/B8/B20/B28/B32 |
| | | TDD | B38/B40/B41 |
| | | WCDMA | B1/B3/B5/B8 |
| | | GNSS | GPS/GLONASS/BeiDou/Galileo |
| | US Ver. | FDD | B2/B4/B5/B7/B12/B13/B25/B26/B29/B30/B66 |
| | | TDD | B41 |
| | | WCDMA | B2/B4/B5 |
| | | GNSS | GPS/GLONASS/BeiDou/Galileo |
| | 5G (Global) | | |
| | 5G NR | 5G Reframed Sub6: n1/ n2/ n3/ n5/ n7/ n8/ n12/ n20/ n28/ n41/ n66/ n71/ New Sub6: n77/n78/n79 | |
| | LTE-FDD | B1/ B2/ B3/ B4/ B5/ B7/ B8/ B12/ B13/ B14/ B17/ B18/ B19/ B20/ B25/ B26/ B28/ B29/ B30/ B32/ B66/ B71 | |
| | LTE-TDD | B34/ B38/ B39/ B40/ B41/ B42/ B46/ B48 | |
| | WCDMA | B1, B2, B3/9, B4, B5/6/19, B8 | |
| GNSS | GPS | | |

| Network Interfaces/Connectivity | | |
|---------------------------------|--|--|
| Wi-Fi | 802.11ac wave 2(5GHz), 802.11a/b/g/n(2.4GHz/5GHz) MU-MIMO 2x2 (2 streams) Wi-Fi Mesh ready | |
| Ethernet ports | Standard | IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) IEEE 802.3ab for 1000BaseT(X) |
| | Ports | 5x 10/100/1000 BASE-TX RJ-45 1 x WAN 4 x LAN |
| Antennas | | |
| Cellular | 4G | 2x SMA(M) antennas |
| | 5G | 4x SMA(M) antennas |
| Wi-Fi | 2x SMA(M) antennas | |
| Watchdog | | |
| Hardware WD Reset | Yes | |
| External IO Interfaces | | |
| Default/Reset Button | 1 key | |
| SIM card slots | Push-pull SIM card Holders (max. available 2 slots) | |
| SD Slot | 1x micro-SD slot | |
| LED Indicators | | |
| LEDs | PWR, 2.4GHz Wi-Fi, 5.0 GHz Wi-Fi, LAN, WAN, 5G/4G Signal | |
| Power | | |
| Voltage Input | DC Power : 12 ~ 48V | |
| Consumption | < 20W | |
| Redundancy | Yes, PoE Model, Option for PoE or DC Input | |
| Connector | 3-pin Terminal block | |
| Reverse polarity protection | Yes | |
| PoE | PoE PD, 802.3at, Mode A, @LAN4 | |
| Mechanicals | | |
| Casing material | Metal housing | |
| Dimension L x W x H (mm) | 145 x 120 x 46 | |
| Weight (g) | 726 | |
| Installation | DIN-Rail or Wall-Mount (optional kit) | |
| Ingress Protection Rating | IP30 protection | |
| Environment limits | | |
| Operating Temperature | -40°C to +75°C (-22°F to +158°F) | |
| Storage Temperature | -40°C to +85°C (-40°F to +185°F) | |
| Ambient Relative Humidity | 5% to 95% RH, (non-condensing) | |

| Software Specifications | |
|-----------------------------|--|
| Internet Connection | |
| Access | APN |
| Authentication | CHAP/PAP/Auto |
| Network | |
| IPv4/IPv6 | DHCP server |
| | DHCP Client/Static IP/PPPoE |
| Connection Protocol/Service | Telnet, SSH, SCP, Http, Https, SNMP |
| Industrial Protocol | NTP, DNS, 802.1Q VLAN, QoS, VRRP, MQTT |
| Security | |
| Firewall | Access control list (ACL) |
| | Port Forwarding |
| | Attack Prevention (Inserted after Port forwarding) |
| VPN | IPSEC, OPEN-VPN, LT2P, PPTP Server, GRE |
| Reliability | |
| Cellular Backup | Dual SIM auto-switch |
| WAN Backup | Cellular and Ether WAN redundancy |
| Schedule operation | Schedule control of application |
| WLAN | |
| Wi-Fi Connection | AP (802.11 a/b/g/n/ac), Mesh |
| Wi-Fi Security | OWE/WPA-PSK/WPA2-PSK/WPA3-PSK (SAE) |
| Management | |
| System Configuration | WEB, Telnet, SSH |
| Firmware upgrade | WEB |
| System Log | SD Storage, remote logger, local flash |
| SNMP | SNMP v1/v2/v3 |
| Diagnostics | Ping, Traceroute, Nslookup |
| Statistics | |
| Statistics | Memory, Mobile, WAN, Wireless, LAN |

REGULATORY APPROVALS

| Regulatory Approvals | | | | |
|----------------------|--|------------------------------|-----------------------------|---|
| Safety | CNS14336-1 | | | |
| EMC | CNS13438 | | | |
| Cellular | NCC PLMN10 / PLMN12 Telec Radio Law Telec Telecommunicaton BusinessLaw | | | |
| Wi-Fi | NCC LP0002 Telec Radio Law | | | |
| Test | Item | Value | Level | |
| IEC 61000-4-2 | ESD | Contact Discharge | ±6KV | 3 |
| | | Air Discharge | ±8KV | 3 |
| IEC 61000-4-3 | RS | Enclosure Port | 10 (V/m) , 80-1000MHz | 3 |
| | | | 3 (V/m), 1-6GHz | 2 |
| IEC 61000-4-4 | EFT | DC Power Port Signal Port | ±2.0KV@ 5.0kHz | 3 |
| | | | ±1.0KV @ 5.0kHz | 3 |
| IEC 61000-4-5 | Surge | DC Power Port Signal Port | Line-to-Line ±1KV | 3 |
| | | | Line-to-Earth ±2KV | 3 |
| | | | Line-to-Earth ±2.0KV | 3 |
| IEC 61000-4-6 | CS | DC Power Port Signal Port | 10V, 150KHz to 80MHz, 80%AM | 3 |
| | | | 10V, 150KHz to 80MHz, 80%AM | 3 |
| IEC 61000-4-8 | PFMF | Enclosure | 30A/m (r.m.s), 50Hz or 60Hz | 4 |
| Shock | IEC 60068-2-27 | | | |
| Drop/Freefall | IEC 60068-2-32 | | | |
| Vibration | IEC 60068-2-64 | | | |
| Others | RoHS, including 2015 amendment REACH Conflict-Mineral Free | | | |
| Warranty | 5 years | | | |

ORDERING INFORMATION

Ordering information

| Model | Part Number | Cellular | Ethernet (RJ45) | WI-FI | PoE | GPS | SIM Slots |
|------------|-----------------|---------------|-----------------|----------|-----|-----|-----------|
| CWR5805-C | 1P1CWR58050001G | 5G-M.2 module | 1x WAN, 4x LAN | 802.11ac | - | Yes | 2 |
| CWR5805P-C | 1P1CWR5805P001G | 5G-M.2 module | 1x WAN, 4x LAN | 802.11ac | Yes | Yes | 2 |

Optional Accessories

| Model | Part Number | Description |
|-------------|-----------------|---|
| AD1048-24FS | 50500481240001G | DIN-Rail Power Supply Input: 100-240VAC / 120-370VDC; Output: 2A@24VDC |
| UV336-1230 | 50500361120001G | Power adapter Input: 100-240VAC; Output: 3A@12VDC; US plug |
| SZ20421WB56 | 59901861G | External Antenna 5G & WiFi Antenna; SMA(M); 80*70*25mm |