

## 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

### Compact and Robust

- Dimensions (mm): 145 x 120 x 46
- Industrial EMC Minimum Level 3
- -40°C to +75°C Temp. Operation
- NCC/JP, CE\*\*/FCC\*\* and Other Certifications

### Powerful & Trusted Platform

- Quad-Core High-Performance Platform
- Secure VPN and Firewall Isolation
- Wi-Fi WPA3 Protection
- IEC 62443-4-2 Cybersecurity Compliance\*

### Reliable & Redundant Design

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

### Quick Deployment & Management

- ATOP OKRA Remote Management System\*

### 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.



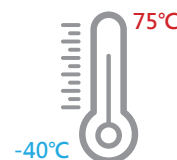
### High-Performance

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

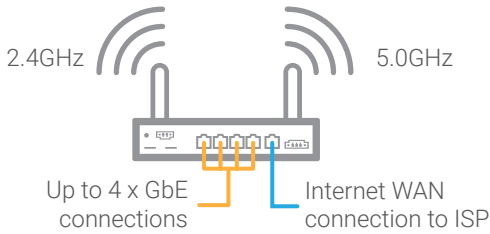
CWR's advanced chipset allows you to set up several devices as a mesh network, achieving a self-healing network that adjusts its topology based on need--perfect for dynamic applications.



### 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

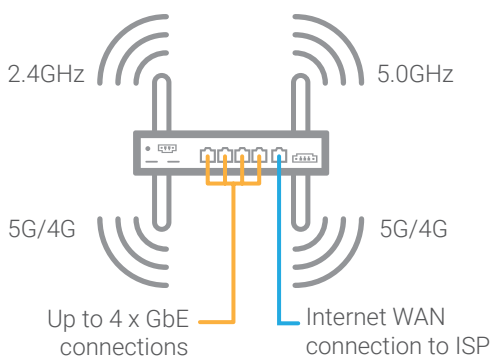
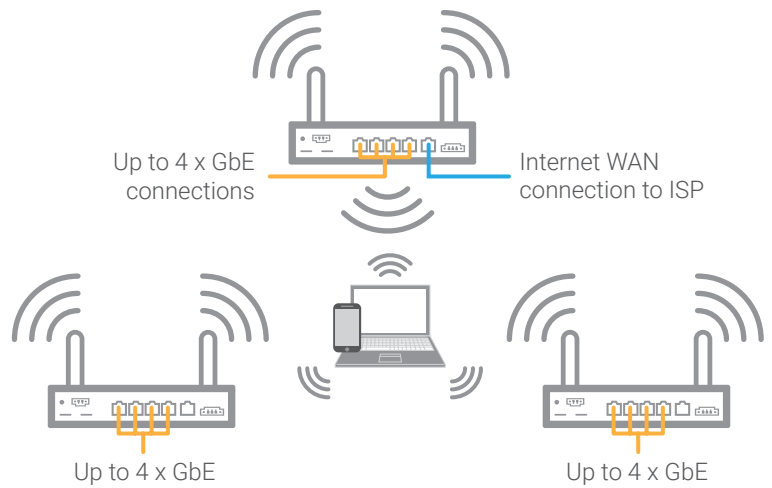


### As a Wi-Fi DBDC Router

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.

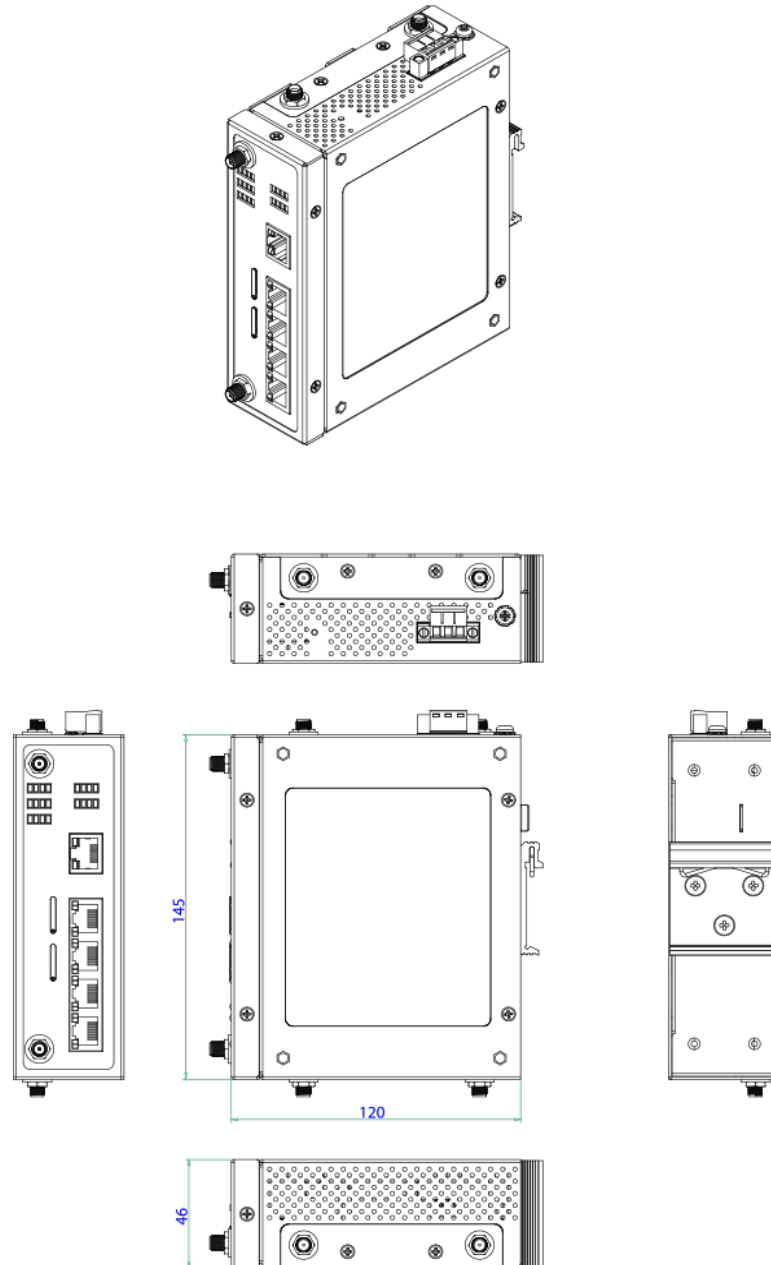


### As a Cellular/Wired/Wi-Fi Router

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		
	LTE Cat6		
	5G		
	5G-NR SA & NSA		
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 40	
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	
<b>Internet Connection</b>	
Access	APN
Authentication	CHAP/PAP/Auto
<b>Network</b>	
IPv4/IPv6	DHCP server
	DHCP Client/Static IP/PPPoE
Connection Protocol/Service	Telnet, SSH, TFTP/SFTP, Http, Https, SNMP
Industrial Protocol	NTP, DNS, 802.1Q VLAN, QoS, VRRP, MQTT
<b>Security</b>	
Firewall	Access control list (ACL)
	Port Forwarding
	Attack Prevention (Inserted after Port forwarding)
VPN	IPSEC, OPEN-VPN, LT2P, PPTP
<b>Reliability</b>	
Cellular Backup	Dual SIM auto-switch
WAN Backup	Cellular and Ether WAN redundancy
Schedule operation	Schedule control of application
<b>WLAN</b>	
Wi-Fi Connection	AP (802.11 a/b/g/n/ac), Mesh
Wi-Fi Security	OWE/WPA-PSK/WPA2-PSK/WPA3-PSK (SAE)
<b>Management</b>	
System Configuration	WEB, Telnet, SSH
Firmware upgrade	WEB, TFTP
System Log	Log data to Local memory, remote logger, local flash
SNMP	SNMP v1/v2/v3
Diagnostics	Ping, Traceroute, Nslookup
Remote Management	ATOP OKRA remote management system
<b>Statistics</b>	
Statistics	Memory, Mobile, WAN, Wireless, LAN

## REGULATORY APPROVALS

Regulatory Approvals				
Safety	UL/IEC 62368-1, IEC60950-1, EN62368-1			
EMC	EN55032, EN61000-6-4, EN55024, EN61000-6-2, FCC Part 15B, FCC Part 18			
Cellular	EN301489-1/-17/-52, EN301908-1 RSE for LTE, EN301908-1 RSE for WCDMA, EN301511 for GSM , EN301908-25 for 5G NR RF, EN301489-1/-52 for 5G NR EMC, Part 24E/27L/27H for WCDMA, Part 22H/24E/27L/27H/27F/27M/90R for LTE, Part 22/24/27 for 5G NR FR1, Part 30 for 5G NR FR2			
Wi-Fi	EN300328 for WIFI b/g/n 2.4G, EN301893 for WIFI a/n/ac 5G, EN62311 MPE Report, Part 15C for 2.4G b/g/n, Part 15E for 5G B1/B4 a/n/ac			
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), 1.4-2.0GHz	3
			10 (V/m), 2.0~2.7GHz	3
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	Cellular	Ethernet (RJ45)	WI-FI	BT	LoRa	PoE	GPS	SIM #/Redundancy
CWR5805-C	5G-M.2 module	1x WAN, 4x LAN	802.11ac	-	-	-	Yes	2/Yes
CWR5805P-C	5G-M.2 module	1x WAN, 4x LAN	802.11ac	-	-	Yes	Yes	2/Yes
CWR5805-OM-XX-Y	Dual LTE Cat. 6 modules	1x WAN, 4x LAN	802.11ac	-	-	-	Yes	2/No
CWR5805-OM-XX	Dual LTE Cat. 6 modules	1x WAN, 4x LAN	802.11ac	-	-	-	-	2/No
CWR5805P-OM-XX-Y	Dual LTE Cat. 6 modules	1x WAN, 4x LAN	802.11ac	-	-	Yes	Yes	2/No
CWR5805P-OM-XX	Dual LTE Cat. 6 modules	1x WAN, 4x LAN	802.11ac	-	-	Yes	-	2/No

### 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