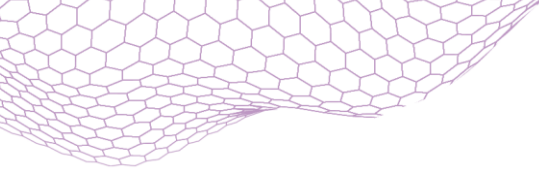


INDUSTRIAL GRADE 5G REDCAP CELLULAR AND WI-FI IOT GATEWAY

DDCG 5R SERIES





SYNOPSIS

- DDCG IO 5R F IS AN INDUSTRIAL-GRADE CELLULAR 5G RED CAP ROUTER FEATURING A HIGH-PERFORMANCE PROCESSOR AND WIRELESS MODULE, RUNNING ON AN EMBEDDED REAL-TIME OPERATING SYSTEM.
- IT OFFERS VERSATILE CONNECTIVITY WITH 2 SERIAL PORTS, 1 X RS232, 1 X RS485, 1 X ETHERNET LAN, 1 X ETHERNET WAN, DI/DO, AND WI-FI.
- THIS ROUTER ENABLES SEAMLESS DATA TRANSMISSION BETWEEN SERIAL, ETHERNET, AND WI-FI DEVICES. IT SUPPORTS DUAL SIM CARDS.

FEATURES

- HIGH-PERFORMANCE INDUSTRIAL-GRADE CPU
- HIGH-PERFORMANCE INDUSTRIAL-GRADE WIRELESS COMMUNICATION MODULE
- PROVIDES STANDARD RS232 AND RS485 PORTS FOR DIRECT CONNECTION TO SERIAL DEVICES
- 2 X 100M ETHERNET PORTS FOR DIRECT CONNECTION TO ETHERNET DEVICES
- DUAL SIM CARD DESIGN WITH COMPLETE DROPOUT PREVENTION MECHANISMS, ENSURING THE DATA TERMINAL IS ALWAYS ONLINE
- SIM CARD INTERFACE WITH 15KV ESD PROTECTION
- SUPPORTS MULTIPLE VPN PROTOCOLS INCLUDING IPSEC, OPENVPN, AND WIREGUARD.
- SUPPORT 2000 TAGS IN PROTOCOL CONVERSION.
- BUILT-IN MQTT GATEWAY, SUPPORTING DATA TRANSPARENT TRANSMISSION TO HTTP/MQTT/AZURE CLOUD
- SUPPORTS REMOTE MANAGEMENT PLATFORM AND PC CLIENT APPLICATIONS
- SUPPORTS SPI FIREWALL
- WI-FI SUPPORTS MULTIPLE ENCRYPTION METHODS INCLUDING WEP, WPA, WPA2 AND, ETC.
- SUPPORTS MULTIPLE NETWORK PROTOCOLS INCLUDING TCP, UDP, IPV4, DNSS, TELNET
- SUPPORTS MOUNTING REMOTE FILE SYSTEMS VIA SSH PROTOCOL
- EQUIPPED WITH DDOS PROTECTION (SYN FLOOD PROTECTION, SSH ATTACK PROTECTION, TELNET ATTACK PROTECTION)
- FLEXIBLE ACCESS CONTROL FOR SSH, WEB INTERFACE, CLI, AND TELNET
- SUPPORTS MODBUS TCP AND MODBUS RTU STATUS/CONTROL
- SUPPORTS MQTT SUBSCRIPTION AND MQTT PUBLISHING
- SUPPORTS BRIDGING AND TRANSPARENT TRANSMISSION FUNCTIONS
- EMC LEVEL 3 AND ABOVE, WITH STRONG ANTI-INTERFERENCE CAPABILITY

PROTOCOL CONVERSION SUPPORTED

- MODBUS RTU TO MODBUS TCP AND VICE VERSA
- MODBUS RTU / MODBUS TCP TO DNP3 ETHERNET AND VICE VERSA
- MODBUS RTU / MODBUS TCP TO IEC 104 AND VICE VERSA
- MODBUS RTU / MODBUS TCP TO MQTT / HTTP
- DNP3 ETHERNET TO MQTT
- IEC 104 TO MQTT / HTTP
- BACNET IP TO MQTT / HTTP
- BACNET MSTP TO MQTT / HTTP
- BACNET IP TO OPC UA CONVERTER.
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TECHNICAL SPECIFICATIONS

CELLULAR SPECIFICATIONS

Standard and Band	LTE FDD	: B1/3/5/7/8/20/28/32
	LTE TDD	: B38/40/41(120M)
	WCDMA	: B1/3/5/8
	5G NR SA	:
	n1/2/3/5/7/8/12/13/14/18/20/25/26/28/30/38/40/41/48/66/70/71/ 77/78/79	
Bandwidth	LTE FDD	: B1/2/3/4/5/7/8/12/13/14/17/18/19/20/25/26/28/30/66/70/71
	LTE TDD	: B34/38/39/40/41/42/43/48
	LTE	: 300Mbps DL, 50Mbps UL
	WCDMA	: 42 Mbps DL, 5.7Mbps UL
	5G SASub-6	: 223Mbps DL, 123Mbps UL
	LTE	: 195Mbps DL, 105Mbps UL

HARDWARE SYSTEM

CPU	Industrial-grade CPU
Flash	32MB
DDR3	128MB

WI-FI SPECIFICATIONS

Standard and Band	IEEE802.11b/g/n, 2.4G
Bandwidth	IEEE802.11b/g: 54Mbps (Maximum)
	IEEE802.11n: 144Mbps (Maximum)
Security	Support WEP, WPA, WPA2 and other encrypt methods
Transmit Power	15 ± 2dBm
Sensitivity	< -72dBm @ 54Mbps

INTERFACES

WAN Interface	1 x 10/100M RJ45 ethernet port, Auto MDI/MDIX, Built-in 15KV ESD
LAN Interface	1 x 10/100M RJ45 ethernet port, Auto MDI/MDIX, Built-in 15KV ESD (Support Passive POE)
Serial	1 x RS232, 1 x RS485 serial interface with built-in 15KV ESD
I/O	1xDI, 1xDO
LED Indicators	PWR", "Online", "LAN", "WAN", "WIFI", "SYS"
Antenna Interface	Cellular: 2 x Standard SMA female antenna interface, characteristic impedance: 50 Ω WIFI: 1 x Standard SMA Male antenna interface, characteristic impedance: 50 Ω
SIM/UIM Slot	2 x Standard 2FF SIM card slot
Power Interface	Standard 4 pin terminal block interface, with built-in phase-reversal and over-voltage protection
Reset Button	Can reset router's configuration to default factory setting by this button

POWER CONSUMPTION

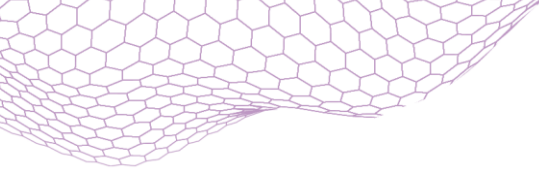
Standard	DC 12V/1.5A
Voltage Range	DC 9~36V
Operating Current	<1.2A (12V)

PHYSICAL PROPERTIES

Casing	Aluminum metal casing, IP30 protection level
Dimensions	91.4x92.4x31mm (excluding antennas and mountings)
Weight	200g

ENVIRONMENTAL

Operating Temperature	-40 to +75°C
Storage Temperature	-40 to +85°C
Relative Humidity	95% (non-condensing)



ORDERING CODE

DDCG IO 5R F

DDCG	Databridge Dynamic Industrial Cellular 5G REDCAP Gateway 2.4G WIFI, 2 x SIM, 1 x RS232, 1 x RS485,
IO	1xDI, 1xDO
5R	5G Redcap
F	Fixed

