

## Dynacom Industrial Router

# DA644

## 3G/4G/LTE Industrial Router



### Overview

DA644 Serial Router is an intelligent cellular router designed for industrial applications requiring faultless connectivity. It provides a secure, reliable, real-time, remote connectivity for SCADA, distribution management systems, metering etc.

Software-defined, multi-carrier networking, dual SIM models, 802.11n and global 2.5G/3G/HSPA+/LTE options make it easy to get connected. With DIN-rail mounting, wide operating temperature range, and metal housing, the DA644 Serial Router is a convenient reliable solution for any industrial wireless applications.

### Application Example



### High-Performance

- WAN access methods, including static IP, DHCP, L2TP, PPTP, PPPOE, 2G/3G/4G
- Double link backup between LTE/WCDMA and WAN(PPPOE, ADSL)(optional)
- VPN client/server(PPTP, L2TP, IPSEC, OPENVPN, GRE)
- Local and remote firmware upgrade
- NTP, RTC embedded
- Multiple DDNS provider service
- VLANs, MAC Address clone, PPPOE Server
- WIFI support 802.11b/g/n. support AP, client, Ad hoc, Repeater, Repeater Bridge mode
- WIFI support WEP, WPA, WPA2 encryption, Support MAC address filter
- Support multiple online trigger ways, including SMS, ring and data. Support link disconnection when timeout
- APN/VPDN
- DHCP server and client, firewall, NAT, DMZ host, URL block, QoS, traffic statistics, real time link speed statistics etc
- Full protocol support, such as TCP/IP, UDP, ICMP, SMTP(optional), HTTP, POP3(optional), TELNET, FTP(optional), SNMP, SSHD, etc
- Schedule Reboot, Schedule Online and Offline, etc

# Packing List



DA644



Cellular Antenna



WIFI Antenna



All countries Power



RS232 Cable

## Industrial Application

- High-powered industrial cellular module
- High-powered industrial 32bits CPU
- Low-consumption mode, including sleep mode, scheduled online/offline mode, scheduled power-on/power-off mode(optional)
- Housing: iron, providing IP30 protection
- Power range: DC 5~36V
- Hardware and software WDT
- Auto recovery mechanism, including online detect, auto redial when offline to make router always online
- Ethernet port: 1.5KV magnetic isolation protection

## Standard & Convenience

- RS232/RS485/RS422 port:
- SIM/UIM port: 15KV ESD protection
- Power port: reverse-voltage and over-voltage protection
- Antenna port: lightning protection(optional)
- Standard RS232(or RS485/RS422), Ethernet and WIFI port that can connect to serial, Ethernet and WIFI devices directly
- Standard WAN port and PPPOE protocol that can connect to ADSL directly
- Intellectual mode, enter into communication state automatically when powered
- Support openwrt

Cellular Module	Content
Cellular Module	Industrial cellular module
Standard and Band	LTE FDD 2600/2100/1800/900/800MHz, 700/1700/2100MHz(optional) DC-HSPA+/HSPA+/HSDPA/HSUPA/UMTS 850/900/2100MHz, 800/850/1900/2100MHz(optional) EDGE/GPRS/GSM 850/900/1800/1900MHz GPRS CLASS 10 GPRS CLASS 12
Bandwidth	LTE FDD: Download speed 100Mbps, Upload speed 50Mbps DC-HSPA+: Download speed 42Mbps, Upload speed 5.76Mbps HSPA+: Download speed 21Mbps, Upload speed 5.76Mbps HSDPA: Download speed 7.2Mbps, HSUPA: Upload speed 5.76Mbps UMTS: 384Kbps
TX power	<23dBm
RX sensitivity	<-97dBm

## WIFI Specification

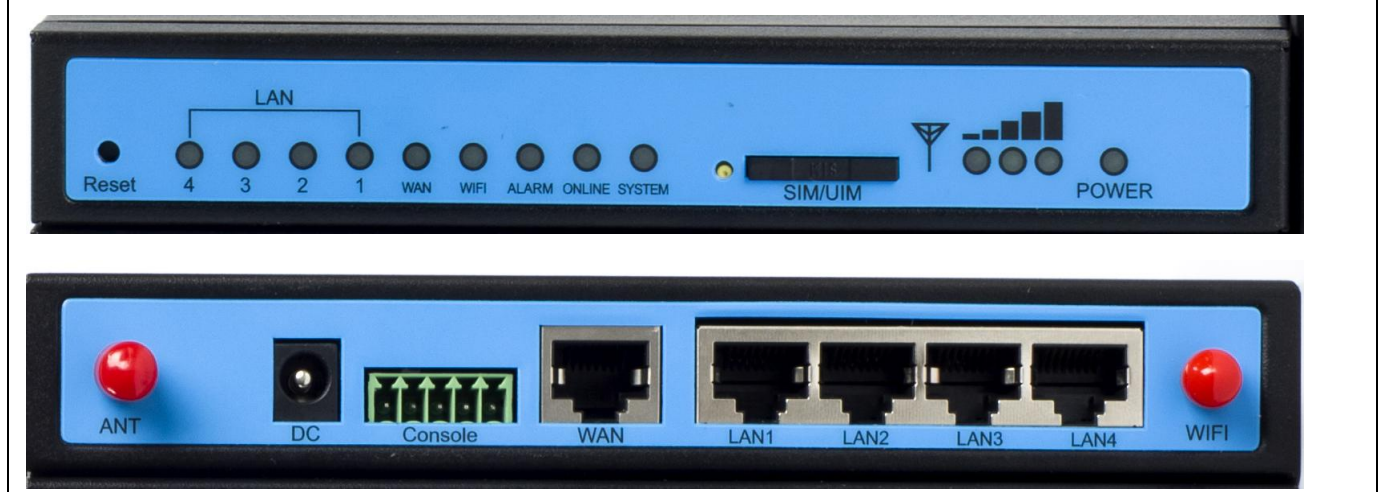
Item	Content
Standard	IEEE802.11b/g/n
Bandwidth	IEEE802.11b/g: 54Mbps (max) IEEE802.11n: 150Mbps (max)
Security	WEP, WPA, WPA2, etc WPS (optional)
TX power	20dBm(11n),24dBm(11g),26dBm(11b)
RX sensitivity	<-72dBm@54Mbps

## Hardware System

Item	Content
CPU	Industrial 32bits CPU
FLASH	16MB(Extendable to 64MB)
DDR2	128MB

## Interface type

Item	Content
WAN	1 10/100 Mbps WAN port(RJ45), auto MDI/MDIX, 1.5KV magnetic isolation protection
LAN	4 10/100 Mbps Ethernet ports(RJ45), auto MDI/MDIX, 1.5KV magnetic isolation protection
Serial	1 RS232(or RS485/RS422) port, 15KV ESD protection Data bits: 5, 6, 7, 8 Stop bits: 1, 1.5(optional), 2 Parity: none, even, odd, space(optional), mark(optional) Baud rate: 2400~115200 bps
Indicator	"Power", "System", "Online", "SIM", "Local Network", "WAN", "WIFI", "Signal Strength"
Antenna	Cellular: 2 Standard SMA female interface, 50 ohm, lightning protection(optional) WIFI: 1 Standard SMA male interface, 50 ohm, lightning protection(optional)
SIM/UIM	Standard 3V/1.8V user card interface, 15KV ESD protection
Power	Standard 3-PIN power jack, reverse-voltage and over-voltage protection
Reset	Restore the router to its original factory default settings



## Power supply

Item	Content
Standard Power	DC 12V/1.5A
Power range	DC 5~36V

### Consumption

Working condition	Consumption
Standby	280~330mA@12VDC
Communication	325~562mA@12VDC
Schedule Shutdown	2.57~4.2mA@12DVC

### Physical Characteristics

Item	Content
Housing	Iron, providing IP30 protection
Dimensions	207x135x28 mm
Weight	790g

### Environmental Limits

Item	Content
Operating Temperature	-35~+75 °C(-31~+167°F)
Storage Temperature	-40~+85 °C (-40~+185°F)
Operating Humidity	95% (unfreezing)

Model No.	Description
DA644-G	Cellular (GPRS/2G), WIFI, LAN*4 WAN*1 SIM*1(Expandable to 2), GPS(Optional)
DA644-C	Cellular (CDMA/2G), WIFI, LAN*4 WAN*1 SIM*1(Expandable to 2), GPS(Optional)
DA644-W	Cellular (WCDMA/HSDPA/HSUPA/HSPA+3G/3.75G), WIFI, LAN*4 WAN*1 SIM*1(Expandable to 2), GPS(Optional)
DA644-E	Cellular (CDMA2000 1X EVDO/3G), WIFI, LAN*4 WAN*1 SIM*1(Expandable to 2), GPS(Optional)
DA644-T	Cellular (LTE-TDD&TD-SCDMA/4G/3G), WIFI, LAN*4 WAN*1 SIM*1(Expandable to 2), GPS(Optional)
DA644-F	Cellular (LTE-FDD&WCDMA/4G/3G), WIFI, LAN*4 WAN*1 SIM*1(Expandable to 2), GPS(Optional)