

Document version	Confidential
V2.0.0	

## F3X27 Series Router Technical Specification

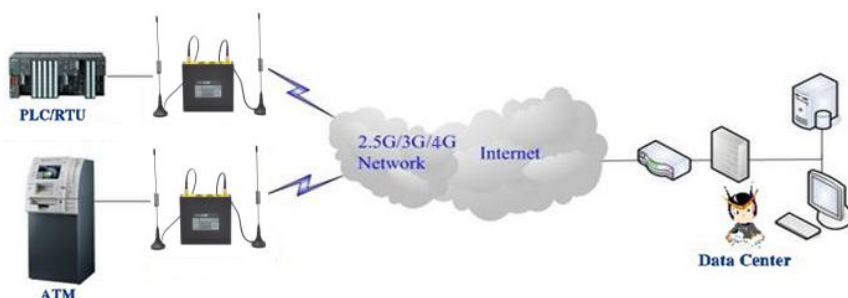


### General

F3X27 Series Router is a kind of cellular terminal device that provides data transfer function by public GPRS/CDMA/WCDMA/EVDO/LTE network.

It adopts high-powered industrial 32-bits CPU and embedded real time operating system. It supports RS232 (or RS485/RS422) and Ethernet port that can conveniently and transparently connect one device to a cellular network, allowing you to connect to your existing serial and Ethernet devices with only basic configuration.

It has been widely used on M2M fields, such as self-service terminal, intelligent transportation, smart grid, industrial automation, telemetry, finance, POS, water supply, environment protection, post, weather, and so on.



### Product Feature

#### Design for Industrial Application

- ◆ High-powered industrial cellular module
- ◆ High-powered industrial 32bits CPU
- ◆ Support low-consumption mode, including sleep mode, scheduled online/offline mode
- ◆ Housing: iron, providing IP30 protection
- ◆ Power range: DC 5~36V

#### Stability and Reliability

- ◆ Support hardware and software WDT
- ◆ Support auto recovery mechanism, including online detect, auto redial when offline to make router always online

- ◆ Ethernet port: 1.5KV magnetic isolation protection
- ◆ RS232/RS485/RS422 port: 15KV ESD protection
- ◆ SIM/UIM port: 15KV ESD protection
- ◆ Power port: reverse-voltage and over-voltage protection
- ◆ Antenna port: lightning protection(optional)

#### Standard and Convenience

- ◆ Support standard RS232(or RS485/RS422), Ethernet port that can connect to serial, Ethernet devices directly

- ◆ Support intellectual mode, enter into communication state automatically when powered
- ◆ Provide management software for remote management
- ◆ Support several work modes
- ◆ Convenient configuration and maintenance interface(WEB or CLI)

**High-performance**

- ◆ Support multiple WAN access methods, including static IP, DHCP, L2TP, PPTP,PPPOE,2.5G/3G/4G
- ◆ Support double link backup between Cellular and WAN(PPPOE, ADSL) (optional)
- ◆ Support VPN client(PPTP, L2TP, IPSEC and GRE)(only for VPN version)
- ◆ Support VPN server(PPTP, L2TP, IPSEC and GRE)(only for VPN version)

- ◆ Support multiple DDNS provider service
- ◆ Support local and remote firmware upgrade,import and export configure file
- ◆ Support NTP, RTC embedded
- ◆ Support VLAN, MAC Address clone, PPPOE Server
- ◆ Support multiple online trigger ways, including SMS, ring and data. Support link disconnection when timeout
- ◆ Support APN/VPDN
- ◆ Support 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), OICQ(optional), TELNET, FTP(optional), SNMP, SSHD, etc
- ◆ Schedule Online and Offline

**Product Specification**

**F3X27 Series Cellular Specification**

Item	Content
<b>F3127 GPRS ROUTER</b>	
Standard and Band	EGSM 900/GSM 1800MHz, GSM 850/900/1800/1900MHz(optional) Compliant to GSM phase 2/2+ GPRS class 10, class 12(optional)
Bandwidth	85.6Kbps
TX power	GSM850/900:<33dBm GSM1800/1900:<30dBm
RX sensitivity	<-107dBm
<b>F3227 CDMA ROUTER</b>	
Standard and Band	CDMA2000 1xRTT 800MHz, 450MHz(optional)
Bandwidth	153.6Kbps
TX power	<30dBm
RX sensitivity	<-104dBm
<b>F3427 WCDMA ROUTER</b>	
Standard and Band	UMTS/WCDMA/HSDPA/HSUPA/HSPA+ 850/1900/2100MHz, 850/900/1900/2100MHz(optional) GSM 850/900/1800/1900MHz

	GPRS/EDGE CLASS 12
Bandwidth	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	<24dBm
RX sensitivity	<-109dBm
<b>F3627 EVDO ROUTER</b>	
Standard and Band	CDMA2000 1X EVDO Rev A 800MHz, 800/1900MHz(optional), 450MHz(optional) CDMA2000 1X EVDO Rev B 800/1900MHz(optional) CDMA2000 1X RTT, IS-95 A/B
Bandwidth	EVDO Rev. A: Download speed 3.1Mbps, Upload speed 1.8Mbps EVDO Rev. B: Download speed 14.7Mbps, Upload speed 5.4Mbps (optional)
TX power	<23dBm
RX sensitivity	<-104dBm
<b>F3727 TDD LTE ROUTER</b>	
Standard and Band	LTE TDD 2600/1900/2300MHz(Band 38/39/40), 800/1400/1800MHz(Band 27/61/62)(optional) TD-SCDMA 2010/1900MHz(A/F frequency band, Band 34/39) GSM /GPRS/EDGE 900/1800/1900MHz
Bandwidth	LTE TDD: Download speed 61Mbps, Upload speed 18Mbps TD-HSPA+: Download speed 4.2Mbps, Upload speed 2.2Mbps TD-HSPA: Download speed 2.2Mbps, Upload speed 2.2Mbps
TX power	<23dBm
RX sensitivity	<-97dBm
<b>F3827 FDD LTE ROUTER</b>	
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
<b>F3A27 LTE ROUTER</b>	
Standard and Band	LTE FDD,LTE TDD,EVDO,WCDMA,TD-SCDMA,CDMA1X,GPRS/EDGE
Bandwidth	LTE FDD: Download speed 100Mbps, Upload speed 50Mbps LTE TDD: Download speed 61Mbps, Upload speed 18Mbps DC-HSPA+: Download speed 42Mbps, Upload speed 5.76Mbps

	TD-HSPA+: Download speed 4.2Mbps, Upload speed 2.2Mbps EVDO Rev. A: Download speed 3.1Mbps, Upload speed 1.8Mbps
TX power	<23dBm
RX sensitivity	<-97dBm

## Hardware System

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

## Interface type

Item	Content
Ethernet	1 10/100 Mbps Ethernet port(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, mark)(optional) Baud rate: 2400~115200 bps
Indicator	"PWR", "SYS", "SIM", "Online", "ETH", "Signal Strength"
Antenna	Cellular: 1 or 2 Standard SMA female interface, 50 ohm, lighting protection(optional)
SIM/UIIM	Standard 3V/1.8V user card interface, 15KV ESD protection
Power	Standard 3-PIN power jack, reverse-voltage and overvoltage protection
Reset	Restore the router to its original factory default settings



Note: There may be different components and interfaces in different model, please in kind prevail.

## Power supply

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

## Consumption

Working condition	Consumption

Standby	4G:96~130mA@12VDC 3G:96~115mA@12VDC 2G:83~90mA@12VDC
Communication	4G:203~290mA@12VDC 3G:172~305mA@12VDC 2G:113~148mA@12VDC

### Physical Characteristics

Item	Content
Housing	Iron, providing IP30 protection
Dimensions	100x97x25 mm
Weight	320g

### Environmental Limits

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

### Ordering Information

Model No.	Description	WAN	LAN	Cellular	WIFI	SIM/UIM
F3127	GPRS ROUTER	-	1	1	-	1
F3227	CDMA ROUTER	-	1	1	-	1
F3427	WCDMA ROUTER	-	1	2	-	1
F3627	EVDO ROUTER	-	1	1	-	1
F3727	TDD LTE ROUTER	-	1	2	-	1
F3827	FDD LTE ROUTER	-	1	2	-	1
F3A27	LTE ROUTER	-	1	2	-	1