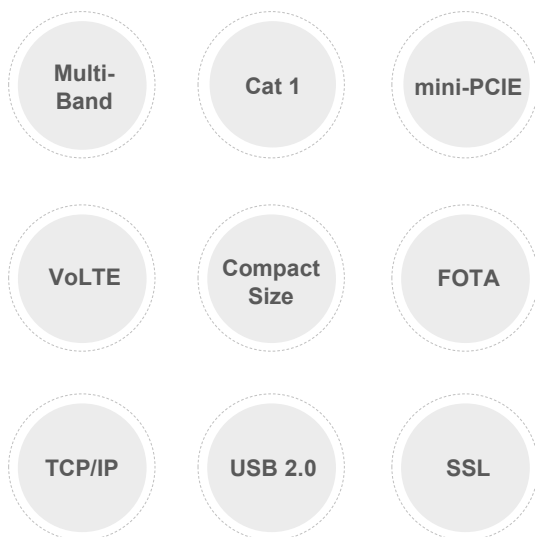
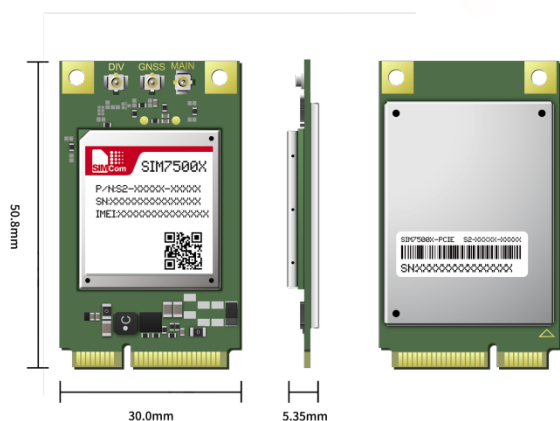


SIM7500-PCIE Series

SIMCom LTE Cat 1 Module



Product Description

The SIM7500-PCIE series is the LTE Cat 1 module which supports wireless communication modes of LTE-TDD/LTE-FDD/HSPA+/GSM/GPRS/EDGE etc. It supports maximum 10Mbps downlink rate and 5Mbps uplink rate.

The SIM7500-PCIE series adopts mini PCIE form factor and consists of a SIM7500 series module and a mini PCIE adapter board. It is easy for customers to integrate.

The SIM7500-PCIE series integrates multiple satellite high accuracy positioning GNSS systems, with multiple built-in network protocols, supports drivers for main operation systems (USB driver for Windows, Linux and Android etc.) and software function, AT commands are compatible with SIM7600/SIM7600-H series modules. Meanwhile the SIM7500-PCIE series integrates main industrial standard interfaces, with powerful expansibility, including abundant interfaces such as UART, USB, GPIO, which is suitable for main IoT applications such as telematics, surveillance devices, CPE, industrial routers, and remote diagnostics etc.

Key Benefits

- ◆ Mini-PCIE interface with strong compatibility
- ◆ Suitable for LTE, UMTS and GSM networks with global coverage
- ◆ Abundant software functions: FOTA, LBS, TLS, VoLTE
- ◆ Multi-constellation GNSS receiver support
- ◆ AT commands of the SIM7500-PCIE series are compatible with the SIM7600/SIM7600-H series modules

Product		SIM7500A-PCIE	SIM7500AD-PCIE	SIM7500V-PCIE	SIM7500SA-PCIE
Form Factor		Mini PCIE	Mini PCIE	Mini PCIE	Mini PCIE
Dimensions(mm)		50.8*30*5.35	50.8*30*5.35	50.8*30*5.35	50.8*30*5.35
Frequency	LTE-FDD	B2/B4/B12	B2/B4/B12	B4/B13	B1/B3/B5/B7/B8/B28
Bands	WCDMA	B2/B5	B2/B5		B1/B5
GNSS		o	o	o	o
Temperature		-40°C ~ +85°C	-40°C ~ +85°C	-40°C ~ +85°C	-40°C ~ +85°C
Electrical Features					
Supply Voltage(V)		3.0~ 3.6	3.0~ 3.6	3.0~ 3.6	3.0~ 3.6
Power Consumption (mA)	LTE	1.6	1.6	1.6	1.6
	WCDMA, DRX=9	3.3	3.3	3.3	3.3
Data Transfer					
LTE(Mbps)		10(DL)/5(UL)	10(DL)/5(UL)	10(DL)/5(UL)	10(DL)/5(UL)
HSPA+(Mbps)		42(DL)/5.76(UL)	42(DL)/5.76(UL)		42(DL)/5.76(UL)
WCDMA(Kbps)		384(DL)/384(UL)	384(DL)/384(UL)		384(DL)/384(UL)
Software Features					
Protocol		TCP/IP/IPV4/IPV6/ Multi-PDP/FTP/FTPS/ HTTP/HTTPS/DNS	TCP/IP/IPV4/IPV6/ Multi-PDP/FTP/FTPS/ HTTP/HTTPS/DNS	TCP/IP/IPV4/IPV6/ Multi-PDP/FTP/FTPS/ HTTP/HTTPS/DNS	TCP/IP/IPV4/IPV6/ Multi-PDP/FTP/FTPS/HTTP/ HTTPS/DNS
TLS		•	•	•	•
File System		•	•	•	•
Audio Record/Play		o		o	o
TTS		o		o	o
DTMF		o		o	o
LBS		•	•	•	•
FOTA		•	•	•	•
Jamming Detection		•	•	•	•
Android RIL		Android 5.0/6.0/7.0/8.0/9.0	Android 5.0/6.0/7.0/8.0/9.0	Android 5.0/6.0/7.0/8.0/9.0	Android 5.0/6.0/7.0/8.0/9.0
USB Driver		Microsoft Windows 7/8/10 Linux/Android	Microsoft Windows 7/8/10 Linux/Android	Microsoft Windows 7/8/10 Linux/Android	Microsoft Windows 7/8/10 Linux/Android
WWAN (RNDIS)		•	•	•	•
ECM		•	•	•	•
MBIM		Win8/Win10	Win8/Win10	Win8/Win10	Win8/Win10
NDIS		Linux/Windows 7/8/10	Linux/Windows 7/8/10	Linux/Windows 7/8/10	Linux/Windows 7/8/10
Firmware Upgrade		USB/FOTA	USB/FOTA	USB/FOTA	USB
Interfaces					
SIM Card		1.8V/3.0V	1.8V/3.0V	1.8V/3.0V	1.8V/3.0V
UART		•	•	•	•
USB		•	•	•	•
PCM		o		o	o
Analog Audio		o		o	o
Embedded SIM card socket		o	o	o	o
I2C		•	•	•	•
Diversity Receiver		•	•	•	•
Certification					
Regulatory		FCC/IC/PTCRB/RoHS/REACH	FCC/PTCRB/RoHS/REACH	FCC/GCF/RoHS/REACH	CE-RED/ACMA/NCC/RoHS/REACH
Carrier		AT&T/Rogers	T-Mobile	Verizon	

•: support o: optional *: on going

Product	SIM7500E-PCIE	SIM7500E-L1C-PCIE	SIM7500JC-PCIE	SIM7500JE-PCIE
Form Factor	Mini PCIE	Mini PCIE	Mini PCIE	Mini PCIE
Dimensions(mm)	50.8*30*5.35	50.8*30*5.35	50.8*30*5.35	50.8*30*5.35
Frequency Bands	LTE-FDD	B1/B3/B7/B8/B20	B1/B3/B7/B8/B20	B1/B3/B8
	WCDMA	B1/B8	B1/B8	
	GSM	900/1800MHz	900/1800MHz	
GNSS	o	o	o	o
Temperature	-40°C ~ +85°C	-40°C ~ +85°C	-40°C ~ +85°C	-40°C ~ +85°C
Electrical Features				
Supply Voltage(V)	3.4~ 4.2	3.4~ 4.2	3.4~ 4.2	3.4~ 4.2
Power Consumption (mA)	LTE	1.6	1.6	1.6
	WCDMA, DRX=9	3.3	3.3	
	GSM, BS_PA_MFRMS=2	2.8	2.8	
Data Transfer				
LTE(Mbps)	10(DL)/5(UL)	10(DL)/5(UL)	10(DL)/5(UL)	10(DL)/5(UL)
HSPA+(Mbps)	42(DL)/5.76(UL)	42(DL)/5.76(UL)		
WCDMA(Kbps)	384(DL)/384(UL)	384(DL)/384(UL)		
GPRS/EDGE(Kbps)	236.8(DL)/236.8(UL)	236.8(DL)/236.8(UL)		
Software Features				
Protocol	TCP/IP/IPV4/IPV6/ Multi-PDP/FTP/FTPS/HTTP/ HTTPS/DNS	TCP/IP/IPV4/IPV6/ Multi-PDP/FTP/FTPS/HTTP/ HTTPS/DNS	TCP/IP/IPV4/IPV6/ Multi-PDP/FTP/FTPS/ HTTP/HTTPS/DNS	TCP/IP/IPV4/IPV6/ Multi-PDP/FTP/FTPS/ HTTP/HTTPS/DNS
TLS	•	•	•	•
File System	•	•	•	•
Audio Record/Play	o	o	o	o
TTS	o	o	o	o
DTMF	o	o	o	o
LBS	•	•	•	•
FOTA	•		•	•
Jamming Detection	•	•	•	•
Android RIL	Android 5.0/6.0/7.0/8.0/9.0	Android 5.0/6.0/7.0/8.0/9.0	Android 5.0/6.0/7.0/8.0/9.0	Android 5.0/6.0/7.0/8.0/9.0
USB Driver	Microsoft Windows 7/8/10 Linux/Android	Microsoft Windows 7/8/10 Linux/Android	Microsoft Windows 7/8/10 Linux/Android	Microsoft Windows 7/8/10 Linux/Android
WWAN (RNDIS)	•	•	•	•
ECM	•	•	•	•
MBIM	Win8/Win10	Win8/Win10	Win8/Win10	Win8/Win10
NDIS	Linux/Windows 7/8/10	Linux/Windows 7/8/10	Linux/Windows 7/8/10	Linux/Windows 7/8/10
Firmware Upgrade	USB/FOTA	USB	USB/FOTA	USB/FOTA
Interfaces				
SIM Card	1.8V/3.0V	1.8V/3.0V	1.8V/3.0V	1.8V/3.0V
UART	•	•	•	•
USB	•	•	•	•
PCM	o	o	o	o
Analog Audio	o	o	o	o
Embedded SIM card socket	o	o	o	o
I2C	•	•	•	•
Diversity Receiver	•		•	•
Certification				
Regulatory	CE-RED/ACMA/NCC/RoHS/ REACH	CE-RED*/RoHS*/REACH*	Telec/JATE/RoHS/REACH	Telec/JATE/RoHS/REACH
Carrier	Deutsche Telekom			Softbank

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