SIM7600-H Series

SIMCom LTE Cat 4 Module

30.0mm

30.0 mm   2.9 mm

Multi-Band	Cat 4	LCC[1]
VoLTE	Compact Size	FOTA
TCP/IP	USB 2.0	SSL

Product Description

The SIM7600-H series is the LTE Cat 4 module which supports wireless communication modes of LTE-TDD/LTE-FDD/HSPA+/GSM/GPRS/EDGE etc. It supports maximum 150Mbps downlink rate and 50Mbps uplink rate.

The SIM7600-H series adopts LCC[1] form factor and is compatible with SIM5320/SIM5360 series(UMTS/HSPA+ modules), and SIM7600 series(LTE modules), which enables smooth migration from 3G products to LTE products, and greatly facilitates more compatible product design for the customer needs.

The SIM7600-H 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 SIM7500/SIM7600 series modules. Meanwhile the SIM7600-H series integrates main industrial standard interfaces, with powerful expansibility, including abundant interfaces such as UART, USB, I2C, GPIO, which is suitable for main IoT applications such as telematics, surveillance devices, CPE, industrial routers, and remote diagnostics etc.

> **NOTE**
> 1: The form factor of SIM7600NA-H & SIM7600G-H is LCC+LGA
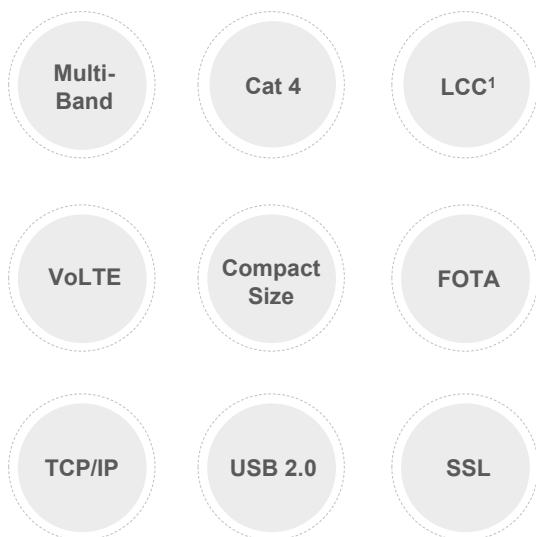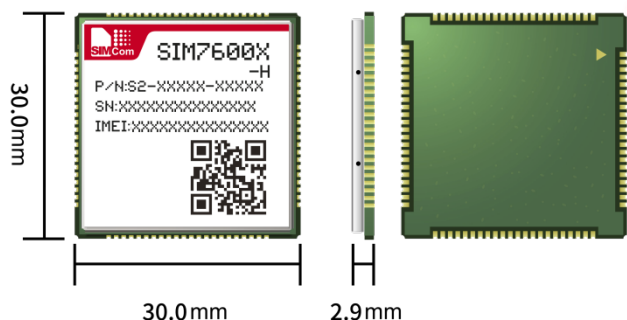
Key Benefits

◆ LCC[1] form factor with abundant interfaces

◆ 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 SIM7600-H series are compatible with the SIM7500/SIM7600 series modules

Product	SIM7600A-H	SIM7600V-H	SIM7600SA-H	SIM7600JC-H
Form Factor	LCC, 87PIN	LCC, 87PIN	LCC, 87PIN	LCC, 87PIN
Dimensions(mm)	30.0*30.0*2.9	30.0*30.0*2.9	30.0*30.0*2.9	30.0*30.0*2.9

Frequency Bands		SIM7600A-H	SIM7600V-H	SIM7600SA-H	SIM7600JC-H
	LTE-FDD	B2/B4/B12	B2/B4/B5/B13	B1/B2/B3/B4/B5/B7/B8/B20/B28/B66	B1/B3/B8/B18/B19/B26
	LTE-TDD			B40	
	WCDMA	B2/B5		B1/B2/B5/B8	
	GSM			850/900/1800/1900MHz	

	SIM7600A-H	SIM7600V-H	SIM7600SA-H	SIM7600JC-H
GNSS	o	o	o	o
Temperature	-40℃ ~ +85℃	-40℃ ~ +85℃	-40℃ ~ +85℃	-40℃ ~ +85℃

Electrical Features

		SIM7600A-H	SIM7600V-H	SIM7600SA-H	SIM7600JC-H
Supply Voltage(V)		3.4~ 4.2	3.4~ 4.2	3.4~ 4.2	3.4~ 4.2
Power Consumption (mA)	LTE	2.3	2.3	2.3	2.3
	WCDMA, DRX=9	3.3		3.3	
	GSM,BS_PA_MFRMS=2			2.8	

Data Transfer

	SIM7600A-H	SIM7600V-H	SIM7600SA-H	SIM7600JC-H
LTE(Mbps)	150(DL)/50(UL)	150(DL)/50(UL)	150(DL)/50(UL)	150(DL)/50(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)	

Software Features

	SIM7600A-H	SIM7600V-H	SIM7600SA-H	SIM7600JC-H
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
Open Linux	o	o	o	o
Firmware Upgrade	USB/FOTA	USB/FOTA	USB/FOTA	USB/FOTA

Interfaces

	SIM7600A-H	SIM7600V-H	SIM7600SA-H	SIM7600JC-H
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
ADC	●	●	●	●
SD Card	●	●	●	●
SPI	o	o	o	o
I2C	●	●	●	●
Diversity Receiver	●	●	●	●

Certification

	SIM7600A-H	SIM7600V-H	SIM7600SA-H	SIM7600JC-H
Regulatory	FCC/PTCRB/IC/RoHS/REACH	FCC/GCF/RoHS/REACH	CE-RED/ACMA/FCC/NCC/RoHS/REACH/Anatel	Telec/JATE/RoHS/REACH
Carrier	AT&T	Verizon		Docomo/Softbank

●: support   o: optional   * : on going

Product		SIM7600E-H	SIM7600E-H1C	SIM7600NA-H	SIM7600G-H
Form Factor		LCC, 87PIN	LCC, 87PIN	LCC+LGA, 119PIN	LCC+LGA, 119PIN
Dimensions(mm)		30.0*30.0*2.9	30.0*30.0*2.9	30.0*30.0*2.9	30.0*30.0*2.9
Frequency Bands	LTE-FDD	B1/B3/B5/B7/B8/B20	B1/B3/B5/B7/B8/B20	B2/B4/B5/B12/B13/B14/B25/B26/B66/B71	B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28/B66
	LTE-TDD	B38/B40/B41	B38/B40/B41	B41	B34/B38/B39/B40/B41
	WCDMA	B1/B5/B8	B1/B5/B8		B1/B2/B4/B5/B6/B8/B19
	GSM	900/1800MHz	900/1800MHz		850/900/1800/1900MHz
GNSS		o	o	o	o
Temperature		-40℃ ~ +85℃	-40℃ ~ +85℃	-40℃ ~ +85℃	-40℃ ~ +85℃

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	2.3	2.3	2.3	2.3
	WCDMA, DRX=9	3.3	3.3		3.3
	GSM,BS_PA_MFRMS=2	2.8	2.8		2.8

Data Transfer

	SIM7600E-H	SIM7600E-H1C	SIM7600NA-H	SIM7600G-H
LTE(Mbps)	150(DL)/50(UL)	150(DL)/50(UL)	150(DL)/50(UL)	150(DL)/50(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)
GPRS/EDGE(Kbps)	236.8(DL)/236.8(UL)	236.8(DL)/236.8(UL)		236.8(DL)/236.8(UL)

Software Features

	SIM7600E-H	SIM7600E-H1C	SIM7600NA-H	SIM7600G-H
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
Open Linux	o		o	o
Firmware Upgrade	USB/FOTA	USB	USB/FOTA	USB/FOTA

Interfaces

	SIM7600E-H	SIM7600E-H1C	SIM7600NA-H	SIM7600G-H
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
ADC	●	●	●	●
SD Card	●	●	●	●
SPI	o	o	o	o
I2C	●	●	●	●
Diversity Receiver	●	o	●	●

Certification

	SIM7600E-H	SIM7600E-H1C	SIM7600NA-H	SIM7600G-H
Regulatory	CE-RED/RoHS/REACH/IMDA/GCF	CE-RED/RoHS/REACH	FCC*/IC*/PTCRB*/GCF*/RoHS*/REACH*	CE-RED/FCC/IC/RCM/RoHS*/REACH*
Carrier	Deutsche Telekom /Vodafone		AT&T*/Verizon*/Sprint*/T-mobile*	

●: support   o: optional   * : on going