

Quectel EM06-A LTE Cat 6 M.2 Module - ODYSSEY X86J4105 Compatible



PRODUCT DETAILS

Features

- LTE Cat 6 Module Optimized for Broadband IoT/M2M Applications
- Worldwide LTE-A and UMTS/HSPA+ Coverage
- Support LTE-A Carrier Aggregation
- Standard M.2 (NGFF) Form Factor, Ideal for Easy Integration of Wireless Connectivity into Devices
- Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment
- Support DFOTA and DTMF
- MIMO Technology Meets Demands for Data Rate and Link Reliability in Modern Wireless Communication Systems

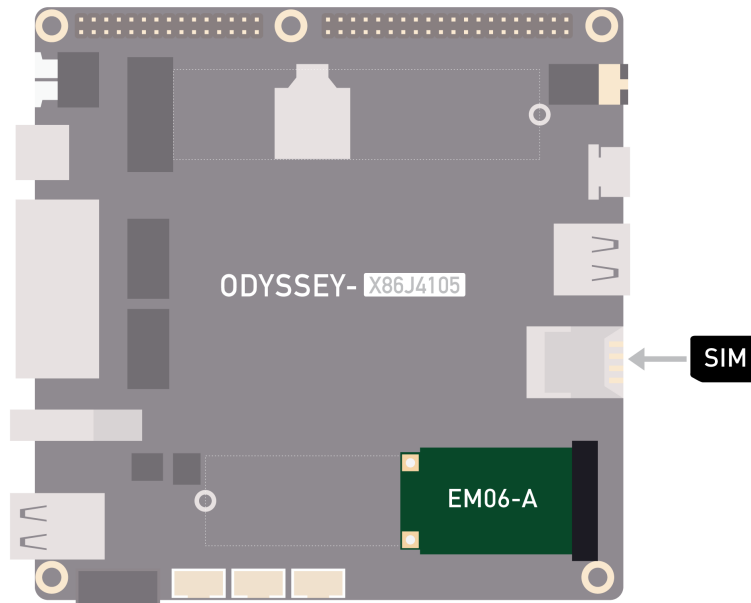
Description

Do you have a device/system that you want to connect to a cellular network through a SIM card, but cannot seem to connect to the network?

Well.... This is probably because you need to connect a 4G module to enable the functionality of the connected SIM card.

For example, some Single Board Computers (SBC) in the market that has 4G capabilities onboard need this kind of 4G modules to be connected before inserting a SIM card.

ODYSSEY - X86J4105864 is no exception. It also needs this type of 4G module to be connected to it via the M.2 interface and then connect a SIM card to expand your cellular-based projects to the next level. The EM06-A LTE Cat 6 M.2 module can be connected to the ODYSSEY - X86J4105864 as follows.



Quectel EM06-A is an LTE Advanced Category 6 Module adopting standard M.2 (NGFF) form factor and optimized specially for M2M and IoT applications. The space-saving M.2 form factor allows EM06-A to be easily integrated into smaller and thinner devices. Adopting the 3GPP Rel.11 LTE technology, it delivers maximum data rates up to 300Mbps downlink and 50Mbps uplink.

We offer the Quectel LTE Modules in different variants. You can refer to the table below to learn more about the differences.

	EM05-E	EM06-A	EM06-E
Region/Operator	Europe/Australia/New Zealand	North America/ Mexico	Europe/Middle East/Africa/Brazil/APAC (Excluding Japan & China Mobile)
LTE Category	Cat 4	Cat 6	Cat 6
LTE-FDD Downlink Data Rate (Mbps)	150	300	300
LTE-FDD Uplink Data Rate (Mbps)	50	50	50
LTE-FDD	B1/B3/B7/B8/B20/B28	B2/B4/B5/B7/B12/B13/B25/B26 /B29/B30/B66	B1/B3/B5/B7/B8/B20/B28/B32 /B29/B30/B66
LTE-TDD	B38/B41	B41	B38/B40/B41
WCDMA	B1/B8	B2/B4/B5	B1/B3/B5/B8

EM06-A supports Qualcomm® IZat™ location technology Gen8C Lite (GPS, GLONASS, BeiDou/Compass, Galileo and QZSS). The integrated GNSS greatly simplifies product design and provides quicker, more accurate and more dependable positioning capability.

Also, a rich set of Internet protocols, industry-standard interfaces and abundant functionalities (USB drivers for Windows 7/8/8.1/10, Linux and Android, DFOTA, etc.) extend the applicability of this module to a wide range.

Specifications

Region/Operator	North America/ Mexico
Temperature Range	
Operation Temperature	-30°C ~ +70°C
Extended Temperature	-40°C ~ +85°C
Frequency Bands	
LTE-FDD	B2/B4/B5/B7/B12/B13/B25/B26/B29/B30/B66
LTE-TDD	B2+B2/B5/B12/B13/B29
2xCA	B4+B4/B5/B12/B13/B29
	B7+B5/B7/B12/B26
	B25+B5/B12/B25/B26
	B30+B5/B12/B29
	B66+B5/B12/B13/B29/B66
	B41+B41
WCDMA	B2/B4/B5
GNSS (Optional)	GPS/GLONASS/BeiDou (Compass)/Galileo/QZSS (Optional)
Certifications	
Carrier	North America: Verizon/AT&T/Sprint
Regulatory	Global: GCF
	North America: FCC/PTCRB
	Canada: IC
Others	WHQL/RoHS Compliant
Data Transmission	
LTE-FDD data rate (Mbps)	300 (DL)/ 50 (UL)
LTE-TDD data rate (Mbps)	226 (DL)/ 28 (UL)
DC-HSPA+ data rate (Mbps)	42 (DL)/ 5.76 (UL)
WCDMA data rate (Kbps)	384 (DL)/ 384 (UL)
Interfaces	
(U)SIM	x 2
I2C	x 1

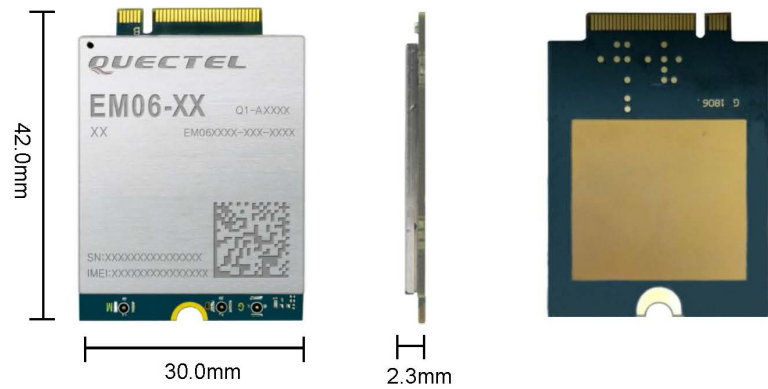
PCM (Digital Audio)	x 1
Antenna Tuner Control* (ANTCTL)	x 4
USB 2.0	x 1
W_DISABLE1#	x 1
RESET#	x 1
WAKE_ON_WAN#	x 1
WWAN_LED#	x 1
Antennas	x3 (Main, Diversity and GNSS Antennas)
Voice	
Speech Codec Modes	AMR/AMR-WB
Echo Arithmetic	Echo cancellation/Noise suppression
VoLTE	CSFB and VoLTE (Voice over LTE) (Optional)
Enhanced Features	
MIMO (2x2, 4x2, DL)	Yes
DFOTA	Yes
Digital Audio and VoLTE (Voice over LTE)	Optional
(U)SIM Card Detection	Yes
DTMF	Yes
Dual SIM Single Standby*	Yes
GNSS	Yes
Drivers	
USB Driver	Windows 7/ 8/ 8.1/ 10, Linux 2.6~5.4, Android 4.x/5.x/6.x/7.x/9.x
GNSS Driver	Android 4.x/ 5.x/ 6.x/ 7.x/ 9.x
RIL Driver	Android 4.x/5.x/6.x/7.x/8.x/9.x
NDIS Driver	Windows 7/ 8/ 8.1/ 10
MBIM Driver	Windows 8/8.1/10, Linux 3.18~5.4
GobiNet Driver	Linux 2.6~5.4
QMI_WWAN Driver	Linux 3.4~5.4
Electrical Features	
Supply Voltage Range	3.135V~4.4V, 3.3V Typ.
Power Consumption	50µA @Power off 3.8mA @Sleep Typ.

21.3mA @Idle

Applications

- Industrial Router
- Industrial Gateway
- Multi-WAN Setup
- Video Surveillance

Dimensions



Parts List

1 x Quectel EM06-A LTE Cat 6 M.2 Module

ECCN/HTS

HSCODE 8517703000

UPC