



Intel® XMM™ 7660 modem

LTE Advanced Pro modem aggregating up to 7 downlink bands for the next generation of advanced cellular devices



Single-SKU Global Coverage. Gigabit+ speeds. 14nm for Slim, Powerful Designs.

The Intel® XMM™ 7660 modem is Intel's sixth generation LTE modem and it demonstrates our commitment to deliver leading-edge cellular technology that exceeds gigabit downlink speeds, provides low latency, as well as RF innovations which allow customers to build world-wide radios in a single SKU. The modem, which is designed via 14nm manufacturing process, delivers high-speed LTE-advanced connectivity for quality voice calls and data-intensive applications including video streaming, multi-player gaming, virtual reality applications and more.

The Intel XMM 7660 modem meets the Release 14 specification from 3GPP™ (3rd Generation Partnership Project). It is blazing fast — supporting speeds up to 1.6Gbps in the downlink (Cat 19), and up to 150 Mbps in the uplink. Beyond LTE, it offers support for LTE/LTE DSDD (Dual SIM, Dual standby), which allow the XMM7660 modem to be roaming on two different LTE networks at the same time — without duplicating modem hardware. It also supports LAA (Licensed Assisted Access) as well as CBRS (Citizen Broadband Radio Service) shared spectrum to enhance flexibility and throughput options. The modem's architecture is optimized to provide these services, while also ensuring in-device coexistence.

This modem was designed with the global manufacturer in mind. Not only does it support six modes of operation, it also provides 7x Carrier Aggregation for downlink of five non-contiguous bands up to 140MHz as well as integrating 4 mode GNSS with GPS, Galileo, GLONASS and BeiDou positioning systems for worldwide satellite navigation support.

The XMM 7660 transceiver offers world-class band density—supporting more than 45 bands with a very large number of Carrier Aggregation combinations simultaneously in a single SKU for true global mobile coverage. It is a competitive solution for device manufacturers looking to quickly design and launch LTE devices in multiple market segments and geographies worldwide, and a strong addition to Intel's broad portfolio of connectivity solutions.

Product Features



Designed for Worldwide Mobility

- World-class band density with support for more than 45 LTE bands simultaneously
- Global coverage with a single design SKU built to meet 3GPP Rel-14 requirements
- 6-mode operation for global market, including LTE-FDD, LTE-TDD, TD-SCDMA, GSM/EDGE, UMTS/WCDMA, and CDMA/EVDO
- GNSS Receiver supporting GPS, GLONASS, BeiDou, Galileo monolithically integrated



Leading-edge Performance and Data Quality

- Blazing-fast LTE Advanced Pro speeds up to 1.6 Gbps download and 150 Mbps upload
- 7x Carrier Aggregation for DL of 5 non-contiguous bands up to 140MHz
- Large number of Carrier Aggregation options to supports all major carriers
- 256QAM downlink and 64QAM uplink modulation schemes for better spectrum efficiency and higher data rate with 4x4 MIMO support



Optimized Power Consumption

- Built on 14nm process optimized for low power consumption



Enhanced Features

- Release 14 Enhanced Voice Service (EVS) to improve voice call performance with advanced interference cancellation support
- LTE/LTE Dual-SIM Dual standby (DSDS) enables a single device to roam on two different LTE networks, simultaneous
- Supports 3.5GHz / 5GHz (CBRS/LAA) spectrum bands

Technical Specifications

Baseband	Intel® X-GOLD™ 766 baseband
Transceiver	Intel® SMARTI™ 8 RF transceiver
Standards & Performance	3GPP Release 14 LTE FDD/TDD 1.6Gbps/150Mbps LAA Support TD-SCDMA 2.8/2.2 Mbps DC-HSPA+ Cat 24, 42Mbps GNSS – 4 Mode
Transceiver Capabilities	LTE-FDD LTE-TDD UMTS/WCDMA TD-SCDMA CDMA/EVDO GSM/EDGE
Carrier Aggregation	LTE FDD/TDD/Hybrid DL 7CA UL 2CA 4x4 MIMO
Modulation	LTE UL-64QAM; DL-256QAM
RF Bands	More than 45 LTE bands simultaneous; including 3.5GHz/5GHz
SIM Support	LTE/LTE Dual SIM Dual Standby (DSDS)

For more information on Intel® Wireless products, visit:

<http://www.intel.com/modems>



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