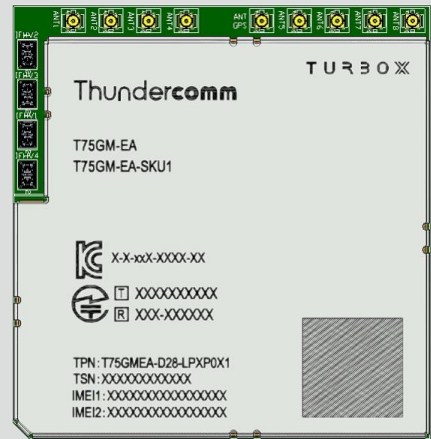


TURBO X

T75 Cellular Module

Designed to deliver breakthrough wireless performance



The Thundercomm TurboX T75 Series Cellular Modules feature an integrated Qualcomm® Snapdragon™ SDX75 5G Modem-RF system and can support both 5G NR Sub-6 SA/NSA and mmWave mode, making it backwards compatible with 4G/3G network.

Integrating advanced 4nm process of the SDX75 chipset, T75 series supports 3GPP Release 17 with superior performance and power efficiency. It can help ODM/OEM easily bring blazing fast connected devices to global market and perfectly apply to CPE/MIFI/Industrial routers with multiple high-speed PCIe interfaces and 10Gbps USXGMII interfaces for Ethernet. It is also applicable to mission-critical applications (ambulances, security, robotics, AR/VR, livestreaming, etc.) and remote health tech (surgery, diagnostics, assistance, etc.) devices.

Applications



CPE/Router



Industrial Control



Automated Guided Vehicle



Webcast

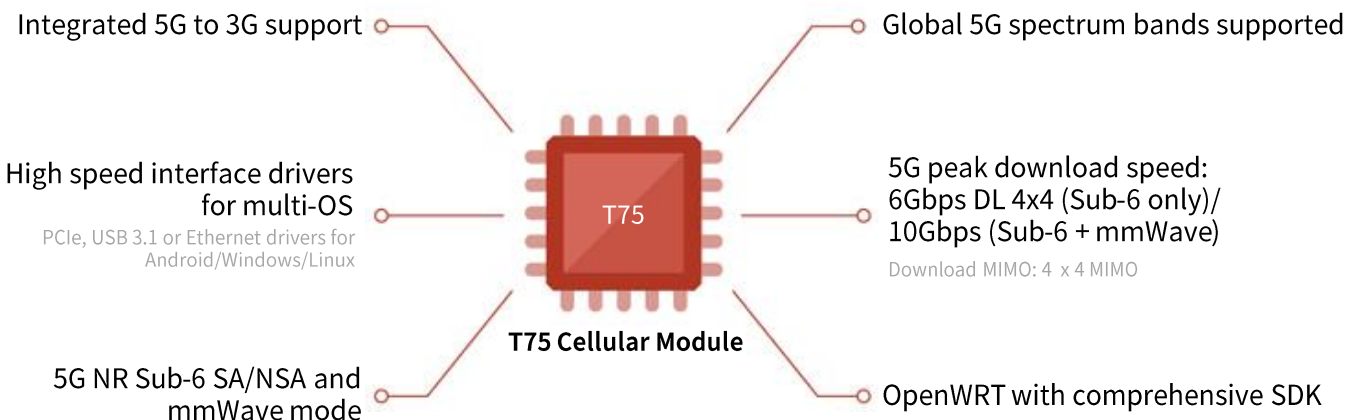


VR/AR



Remote Healthtech

Features

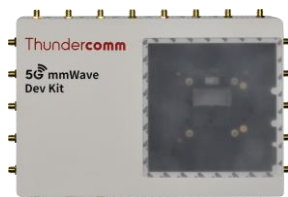


T75G(M)-EA SOM Specifications

	Category	T75G-EA	T75GM-EA
SDX75 Chipset	CPU	Quad Arm Cortex-A55 up to 2.2 GHz	
	DSP	Qualcomm® Hexagon™ DSP processor at up to 1.6 GHz (Turbo)	
	Power Management	PMX75/PMK75	
	RF Transceiver	SDR875	
Memory	DRAM/NAND	4GB/8GB eMMC + 2GB LPDDR5X	
Air Interface	5G NR (3GPP R17)	Sub-6: n1/n3/n5/n7/n8/n20/n26/n28/n38/n40/n41/n48/n75/n76/n77/n78/ n79/n91/n92/n93/n94	mmWave: n257/n258/n259/n260/n261
	LTE (Cat18 UL/Cat 20 DL)	B1/B3/B5/B7/B8/B18/B19/B20/B26/B28A/B28B/B32/B38/B40/B41/ B42/B43/B48/B68	
	WCDMA	B1/B5/B6/B8/B19	
	GNSS	GPS/Beidou/GLONASS/Galileo/QZSS, L1/L2/L5 bands supported (optional)	
	Peak Download Speed	6Gbps DL 4x4 (Sub-6 only)	10Gbps (Sub-6+mmW)
Peak Upload Speed	1Gbps UL 2x2 (Sub-6 only)	3.38Gbps (Sub-6+mmW)	
Connectivity and Peripheral Interface	QUP	9x QUP, supporting UART, SPI, and I2C	
	Antenna Connector	8x Sub-6 (optional) ; 1x GNSS (optional)	4x mmWave (PC1/PC3); 8x Sub-6 (optional) ; 1x GNSS (optional)
	UIM	2x USIM	
	PCI express	1x Gen4 1-lane + 1x Gen3 2-lane + 1x Gen3 1-lane	
	I2S/PCM	2x I2S/PCM	
	USB	1x USB 2.0/1x USB 3.1 Gen 2	
	Ethernet	2x USXGMII 10G	
Others	EBI2 for LCD display		
Form Factor	LGA	50mm x 52mm x 3.05mm	
Power	Voltage Range	3.3~4.35V, Typ. 3.8v	
Temperature Range	Operation	-30°C to + 75°C	
	Extended/Storage	-40°C to + 85°C	
Certification	KC*/SKT*/KT*/LGU+*/CE*/Deutsche Telekom*/JATE*/TELEC*/KDDI*/Softbank*/NTT DOCOMO*		
OS Support	Operating System	OpenWRT, capable of working with Windows, Ubuntu, Android, etc.	
	Open CPU	Equipped with a comprehensive SDK for OpenWRT	

T75GM-EA 5G Sub-6 + mmWave Development Kit Specifications

Thundercomm



SOM Platform	Thundercomm TurboXT75GM-EA 4 or 2 x mmWave (PC1)
Antenna	8x Sub-6; 1x GNSS 12x Wi-Fi (4x Wi-Fi 2.4G, 4x Wi-Fi 5G, 4x Wi-Fi 6G)
Ethernet	2x USXGMII 10Gbps WLAN802.11a/b/g/n/ac/ax/be 2.4/5/6GHz 4X4 MIMO
Wi-Fi	1x Wi-Fi 2.4GHz (M.2 form factor) 1x Wi-Fi 5GHz (in M.2 form factor) 1x Wi-Fi 6GHz (in M.2 form factor)
USB	1x USB 2.0 Micro B (for debug only) 1x USB 3.0 Type-C (Gen2)
SIM	2x UIM
Buttons	Power on Force USB boot Reset
Expansion Interfaces	9x BLSP, supporting UART, SPI, and I2C
Power Source	12V/10A, DC Plug 5.5mm/2.5mm
Dimensions	264mm x 181mm x 69.7mm
LED	4x LED Indicators (T.B.D.)
Audio	T.B.D.
Fan	T.B.D.
SLIC	T.B.D.



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