

# TURBO X T55 SOM

Designed to deliver breakthrough wireless performance



The TurboX T55 series SOM (System On Module) integrates Qualcomm® Snapdragon™ X55 5G modem-RF system, supports both 5G Sub-6 GHz and mmWave bands, as well as SA and NSA modes which make it backwards compatible with 4G/3G network.

The integrated GNSS receiver, supports GPS/GLONASS/BeiDou/Galileo/QZSS with dual L1 and L5 bands, greatly simplifies product design, and provides quicker, more accurate and more reliable positioning capability. With rich variants of LGA and M.2 form factor, T55 series SOM can help OEMs easily bring blazing fast connected devices to the global market.

## Applications



Industrial Control



Automated Guided Vehicle



Webcast



Gate way



VR/AR

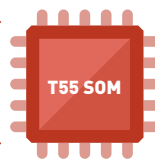
## Features

Integrated 5G to 3G Support

High speed interface drivers for multi-OS

PCIe, USB 3.1 or 10Gb Ethernet drivers for Android/Windows/Linux

5G SA/NSA operation modes



T55 SOM

Global 5G spectrum bands supported

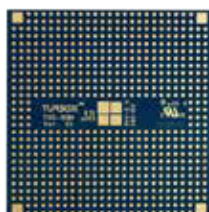
5G Peak Download Speed: 3Gbps  
Download MIMO: 4 x 4 MIMO

OpenCPU with Comprehensive SDK

## Specifications

Specification	Category	T55G-EA
SDX55 Chipset	CPU	Arm Cortex-A7 up to 1.5 GHz
	DSP	Qualcomm® Hexagon™ DSP processor at up to 1.5 GHz
	Power Management	PMX55
	RF Transceivert	SDR865
Memory	DRAM/NAND	4Gb DDR4 + 4Gb NAND
Air Interface	5G NR	sub-6GHz: SA: n28 SA&NSA: n41, n77, n78, n79
	LTE(Cat20 UL/DL)	B1/B3/B5/B7/B8/B18/B19/B20/B26/B28/B32/B34/B38/B39/B40/B41/B42
	WCDMA	B1/B3/B5/B8/B19
	GNSS	GPS/Beidou/GLONASS/Galileo/QZSS, L1/L5 bands supported
Data Rate	Peak Download Speed	5G NR+LTE 3CC: 3Gbps DL 4x4 MIMO
	Peak Upload Speed	5G NR: 900Mbps
Connectivity and Peripheral Interface	BLSP	4x BLSP supports UART, SPI, and I2C
	Antenna Connector	8x sub-6GHz, 1x GNSS
	UIM	2x USIM
	PCI express	1x Gen3 2lane
	I2S	2x I2S/PCM
	USB	1x USB 3.1
Form Factor	LGA	LGA Package: 42.5*42*2.6mm
Certification	Regulatory&Carrier	KC/JATE/TELEC/CE"/LGU+/KT/SKT/NTT DOCOMO"/Softbank"/KDDI"
Weight		11.05 ± 0.2g
Power	Voltage Range	3.0~4.35V, Typ. 3.8v
	Operation	-25°C ~ +75°C
Temperature Range	Storage	-40°C ~ +85°C
	Software	Operating System

\* Ongoing, " Planning



## Specifications

Specification	Category	T55M-EA	T55MM-EA
<b>SDX55 Chipset</b>	<b>CPU</b>	Arm Cortex-A7 up to 1.5 GHz	
	<b>DSP</b>	Qualcomm® Hexagon™ DSP processor at up to 1.5 GHz	
	<b>Power Management</b>	PMX55	
	<b>RF Transceivert</b>	SDR865	SDR865+SMR526
<b>Memory</b>	<b>DRAM/NAND</b>	4Gb DDR4 + 4Gb NAND	
	<b>5G NR</b>	sub - 6GHz: SA: n28; SA&NSA: n41, n77, n78, n79	
<b>Air Interface</b>		mmWave: Not Support	mmWave: n257/n258/n260/n261
	<b>LTE (Cat20 UL/DL)</b>	B1/B3/B5/B7/B8/B18/B19/B20/B26/B28/B32/B34/B38/B39/B40/B41/B42	
	<b>WCDMA</b>	B1/B3/B5/B8/B19	
	<b>GNSS</b>	GPS/Beidou/GLONASS/Galileo/QZSS, L1/L5 bands supported	
<b>Data Rate</b>	<b>Peak Download Speed</b>	Sub-6: 3Gbps DL 4×4 MIMO; mmWave: 6.2Gbps (DL 800M 8CC 2x2 64QAM)	
	<b>Peak Upload Speed</b>	Sub-6: 900Mbps; mmWave: 1.35Gbps (UL 200M 2CC)	
<b>Connectivity and Peripheral Interface</b>	<b>I2S</b>	1x I2S	
	<b>UIM</b>	1x USIM/1x eSIM (Optional)	
	<b>PCIe</b>	1x Gen3 1Lane ( 2Lane is optional)	
	<b>USB</b>	1x USB 3.1/USB 2.0	
	<b>Antenna Connector</b>	4xsub-6GHz, 1xGNSS;	8xmmWave, 4xsub-6GHz, 1xGNSS
<b>Certification</b>	<b>Regulatory&amp;Carrier</b>	KC/JATE/TELEC/CE"/LGU+/KT"/SKT"/NTT DOCOMO/Softbank"/KDDI	
<b>Form Factor</b>	<b>M.2</b>	52.0mm × 30.0mm × 2.3mm	
<b>Power</b>	<b>Voltage Range</b>	3.0~4.35V, Typ. 3.8v	
	<b>Operation</b>	-25°C ~ +75°C	
<b>Temperature Range</b>	<b>Storage</b>	-40°C ~ +85°C	
	<b>Software</b>	<b>Operating System</b>	Linux

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