

TURBO X

C2290/CM2290 SOM



The C2290/CM2290 SOM (System on Module) is designed based on the Qualcomm® QCM2290 platform. It brings high-value features to entry-level devices, delivering greater performance, higher graphics capabilities, better quality images, and improved power performance. The form factor of the module is 34mm*35mm (C2290) and 51mm*35mm (CM2290) LGA package which can be fit into devices such as retail POS (Point-of-sale), industrial handheld, tracking and camera applications, etc. It is an ideal platform for both industrial and consumer applications requiring high rate multimedia function, and can help customers rapidly develop cost-effective cellular devices to the market.

Applications



Dash
Camera



Surveillance
Camera



POS



Digital
Signage



Vending
Machine

Features

Discrete Memory

Easy to change the memory configuration to save cost

Video

1080P@30FPS encode
/1080P@30FPS decode

Global multi-bands

LTE Cat 4

Display Support

HD+, 720 × 1680@60 Hz, 10-bit end-to-end, and up to four hardware layer composition

Always-on Processor

Support always-on use cases at reduced power level

Dual image signal processors (ISPs)

Dual ISP@30FPS ZSL with 13MP + 13MP or 21MP

C2290/CM2290 SOM

Specifications

	CM2290-EA	CM2290-NA	C2290
Region/Operator	EMEA, Asia	North America	Global
Platform	Qualcomm® QCM2290	Qualcomm® QCM2290	Qualcomm® QCS2290
	Quad-core Arm Cortex-A53, 64-bit, 2.0GHz	Quad-core Arm Cortex-A53, 64-bit, 2.0GHz	Quad-core Arm Cortex-A53, 64-bit, 2.0GHz
	Adreno™ 702 GPU	Adreno™ 702 GPU	Adreno™ 702 GPU
	Hexagon™ QDSP6 v66	Hexagon™ QDSP6 v66	Hexagon™ QDSP6 v66
Memory	LPDDR4x 1GB + eMMC 8GB (Linux only)	LPDDR4x 1GB + eMMC 8GB (Linux only)	LPDDR4x 2GB + eMMC 16GB (default)
	LPDDR4x 2GB + eMMC 16GB (default)	LPDDR4x 2GB + eMMC 16GB (default)	LPDDR4x 3GB + eMMC 16GB
	LPDDR4x 3GB + eMMC 16GB	LPDDR4x 3GB + eMMC 16GB	
OS Support	Android 11(R), 13(T), Linux	Android 11(R), 13(T), Linux*	Android 11(R), 13(T)
Size & Form Factor	51mm x 35mm x 2.9mm / LGA	51mm x 35mm x 2.9mm / LGA	34mm x 35mm x 2.9mm / LGA
Operation Temperature	-25°C ~ +75°C	-25°C ~ +75°C	-25°C ~ +75°C
LTE Cat 4	FDD: B1/B2/B3/B5/B7/B8/B20/B28(A+B)	FDD: B2/B4/B5/B7/B12/B13/B14/B17/B25/B26/B66/B71	-
	TDD: B34/B38/B39/B40/B41	TDD: B41	-
WCDMA	B1/B2/B5/B8	-	-
GSM	850/900/1800/1900 MHz	-	-
WLAN	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac
Bluetooth	BT 5.0	BT 5.0	BT 5.0
GNSS	GPS, Glonass, BeiDou, Galileo, QZSS, and SBAS	GPS, Galileo, and SBAS	GPS, Glonass, BeiDou, Galileo, QZSS, and SBAS (Reserve GNSS_IQ to extend support Qualcomm WGR7640)
Display Interfaces	1x MIPI-DSI 4-lane, support HD+(720 × 1680)@60FPS	1x MIPI-DSI 4-lane, support HD+(720 × 1680)@60FPS	1x MIPI-DSI 4-lane, support HD+(720 × 1680)@60FPS
Camera Interface	2x MIPI-CSI, 4 + 4 or 4 +2+1, D-PHY 1.2 at 2.5 Gbps per lane;	2x MIPI-CSI, 4 + 4 or 4 +2+1, D-PHY 1.2 at 2.5 Gbps per lane;	2x MIPI-CSI, 4 + 4 or 4 +2+1, D-PHY 1.2 at 2.5 Gbps per lane;
	2x ISP (13 MP + 13 MP or 21MP) @30 FPS ZSL	2x ISP (13 MP + 13 MP or 21MP) @30 FPS ZSL	2x ISP (13 MP + 13 MP or 21MP) @30 FPS ZSL
Video	Encode: 1080P@30FPS (H.265/H.264)	Encode: 1080P@30FPS (H.265/H.264)	Encode: 1080P@30FPS (H.265/H.264)
	Decode: 1080P@30FPS (H.265/H.264/VP9)	Decode: 1080P@30FPS (H.265/H.264/VP9)	Decode: 1080P@30FPS (H.265/H.264/VP9)
Other Interface	1 x USB 2.0 or USB 3.1; 9 x QUP; 1 x SD Card; 2 x UIM; 1x MI2S, 4 x DMIC, 3x AMIC, GPIOs	1 x USB 2.0 or USB 3.1; 9 x QUP; 1 x SD Card; 2 x UIM; 1x MI2S, 4 x DMIC, 3x AMIC, GPIOs	1 x USB 2.0 or USB 3.1; 9 x QUP; 1 x SD Card; 1x MI2S, 4 x DMIC, 3x AMIC, GPIOs
Regulatory	CE/GCF*/JATE*/TELEC*/KC*	FCC/IC/PTCRB	FCC*/CE*/IC*/JATE*/TELEC*/KC*
Other Regulatory	RoHS/REACH/WEEE/HF	RoHS/REACH/WEEE/HF/TSCA	RoHS/REACH/WEEE/HF

* Planning or in progress



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