Datasheet: JMO's Smart Cluster

The Smart Cluster is based on one of Qualcomm's highly integrated, low power, system on chip solutions, the QCM6125. This proven solution integrates an impressive list of compute, graphics, DSP, computer vision and AI, cellular and wireless capabilities.

CPU	Octa core, ARM Kryo 260: 4xGold@2.0GHz + 4 x Silver@1.8GHz
GPU (AI)	Qualcomm Adreno 610, 950Mhz
DSP (AI)	Qualcomm Hexagon 686 with Dual Vector extensions
Memory	LPDDR4x 8GB + UFS 2.1 64GB
Cellular	LTE Cat-4
GNSS	GPS, GLONASS, BeiDou, Galileo, QZSS, and SBAS
WLAN / Bluetooth	Wi-Fi 1 x 1, 802.11a/b/g/n/ac, Bluetooth 5.0
Camera interfaces	2 x ISP: (16 + 16) MP, and 25 MP@30fps; 3 x 4-lane CSIs (4/4/4 or 4/4/2/1)
Display Interfaces	1 x MIPI-DSI 4-lane, 1080 x 2520@60fps; 1 x DP, 1920 x 1200@60fps
Video Encode	4K30 10-bit: HEVC and 4K30 H.264/VP8
Video Decode	4K30 8-bit: H.264/VP8; 4K30 10-bit: HEVC/VP9; 1080p60 MPEG-2
USB	1 x USB 2.0 or 1 x USB 3.1 (DP is not available, if USB 3.1 is used)

Building on the impressive hardware performance the Smart Cluster software can also be customised and extended. Built on Android operating system users can take advantage of integrated SDK services listed below and extend these capabilities with their own software features.

Operating system	Android 13*
Smartphone integration services**	Apple CarPlay*** Android Automotive***
Safety critical functions	Speedometer / Odometer Electric Vehicle Battery Brakes & indicators Vehicle Power & Diagnostics
Security	Driver recorder function via front & rear cameras Remote alarm and lock/unlock
Advanced Rider Assistance system services	Front and Rear ARAS****
Audio	Dual Bluetooth (Sink & Source) integration Voice calling, voice command
Upgrade	Over the air update support
Connected Services	Available via integrated LTE modem in QCM6125

Android upgrade available in the future

**Certification with 3rd parties required for customer products

*** wired and wireless configurations supported

****Provided by Luna systems