

S.No	Block Available	Purpose	Significance
1.	Processing units	Handles various types of processing tasks, from general-purpose to real-time and signal processing.	ARM A-15, ARM M-4, C 66X DSP provides the computational power necessary for high performance, real time and signal processing tasks.
2.	Memory and Communication	Manages data storage and communication, ensuring high-speed access and data integrity.	System Mailbox X 13, DDR with ECC, RAM ensures efficient data handling, fast access and reliable communication between different parts of the system.
3.	System Services	Provides essential services for efficient data transfer, system reliability, and timing operations.	EDMA gives direct access to memory without involving CPU, WDT monitors system operation and timers synchronizes the timing action.
4.	Connectivity	Provides interfaces for external communication and data transfer.	These blocks enable the SoC to connect with external devices and networks, facilitating high-speed data transfer, peripheral connectivity, and network communication. They are vital for expanding the SoC's capabilities and integrating it into larger systems.
5.	Serial Interfaces	Facilitates communication with various serial devices	These blocks offer multiple channels for serial communication, supporting a wide range of peripherals such as sensors, displays, audio devices, and other microcontrollers. They are essential for flexible and versatile device interfacing.
6.	Display Subsystem Overlay, GFX Pipeline, Video Pipeline	Manages video and graphics rendering.	Enables complex visual outputs such as head-up displays and instrument clusters.

7.	Video Codec Accelerator IVA HD 1080p Video:	Hardware acceleration for video encoding/decoding.	Significance: Ensures efficient processing of high-definition video streams.
8.	Graphics Engine Up to Dual SGX544:	High-performance graphics processing.	Provides advanced graphics capabilities for visual displays in vehicles.