Use Cases

Defined use cases from IC-EG

Function Block Assignment

Safety monitoring and real time function which includes device access shall be assigned outside of AGL. - All of the other cluster function shall be assigned onto the cluster container.

Other Container	IVI Container	Cluster Container	Safety / Real Time Function
	Radio Audio HFP Tuner Control	SPEED TACHO TEMP Shift Position	FUEL Alarm Backlight
	Turn by Traffic Sign CarPlay. Android Auto	Telltale Warning Fuel ECO	ODO/Trip DIAG DTC
	Sound Display Video SDL SDL	ACC Energy User User Maintenance	System CAN-NM EOL
	BT WiFi USB Touch Display	Traffic Sign etc.	LIN CAN etc.
	Rear Camera etc		Safety Monitor
Container host	Input Manager Manager		
Linux Kernel	ICCOM DRM		RTOS / Non-OS
	SoC		MCU
			AUTON

Use case	RTOS Role	Linux Role
Data probing (IO extender)	Get various sensor data from HW IP such as A/D converter, HW timer and more. And micro controller accumulates these sensor data.	Get various sensor data packed by RTOS.
	Get data from vehicle bus such as CAN, LIN, FlexRay and other. These interface require to high frequently interrupt handling.	Get vehicle bus data packed by RTOS.
Output control (IO extender)	Control motor using micro controller PWM port. Control electromagnetic relay and other.	Set output status to micro controller port.
IO control	Control motor with feedback loop.	Set output status to micro controller port.