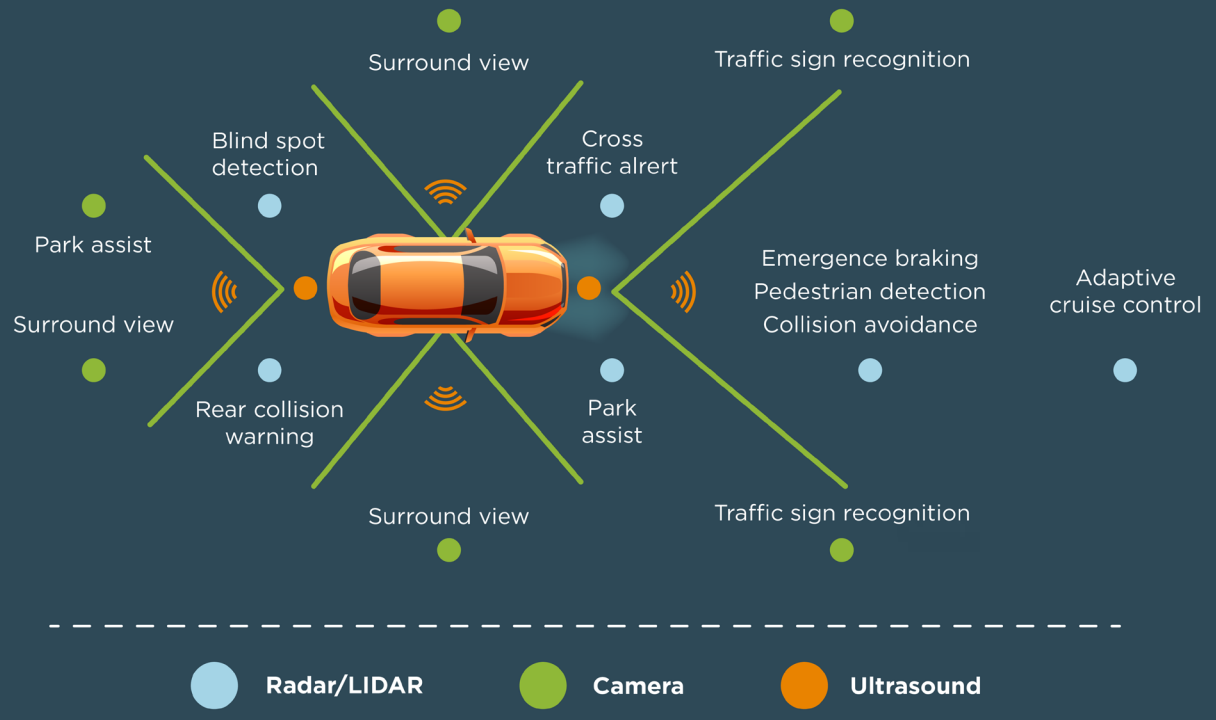
ADVANCED DRIVER ASSISTANCE SYSTEMS (ADAS)

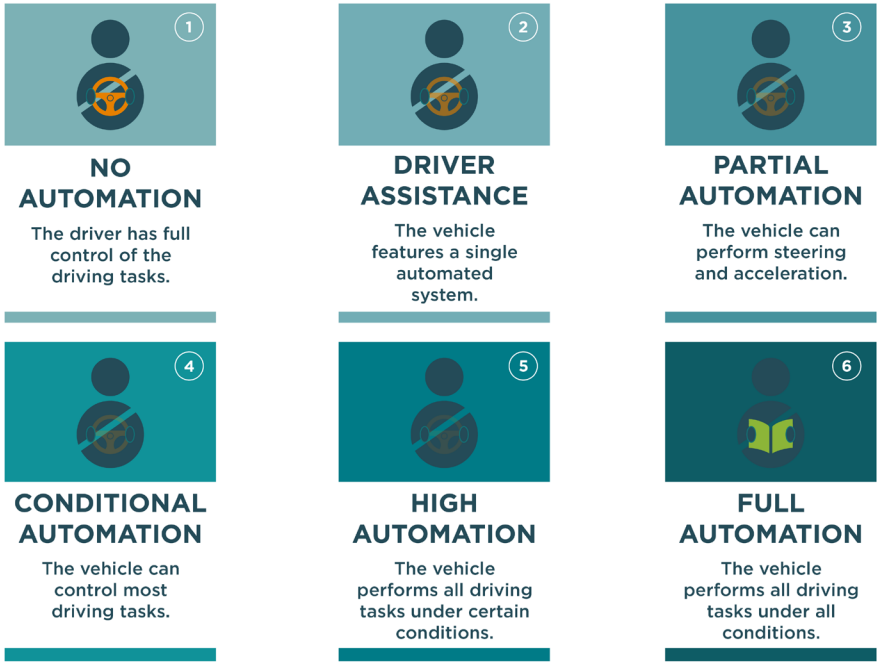
Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI) pose threats to electronic signal integrity and strength, leading to disruptions and suboptimal performance in sensitive communication systems and devices. In the context of Advanced Driver Assistance Systems (ADAS), EMI becomes a critical safety concern. To mitigate these issues, robust engineering design is essential.

Vehicles with advanced driver assistance systems (ADAS) include a wide range of electronics, many of which have a high risk of propagating EMI. Numerous design best practices exist to address electronic noise, and while engineers might lack significant control over the electrical systems, there are still a few design considerations that can minimize the impact of electromagnetic interference (EMI) on sensors and software.

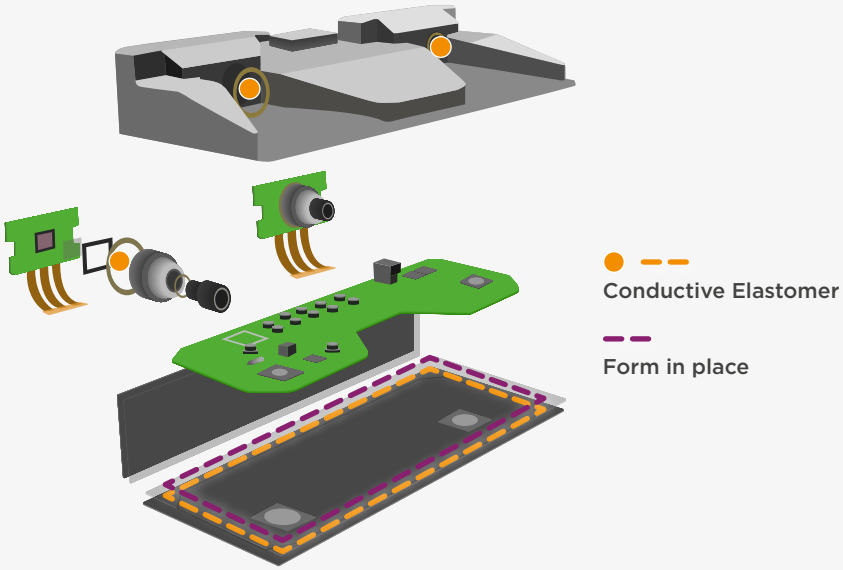
It is critical to consider EMI/RFI shielding solutions that effectively reduce susceptibility to electronic malfunctions by either blocking external electromagnetic waves or preventing the emission of internal electromagnetic waves that could interfere with surrounding circuits or devices in and around ADAS components



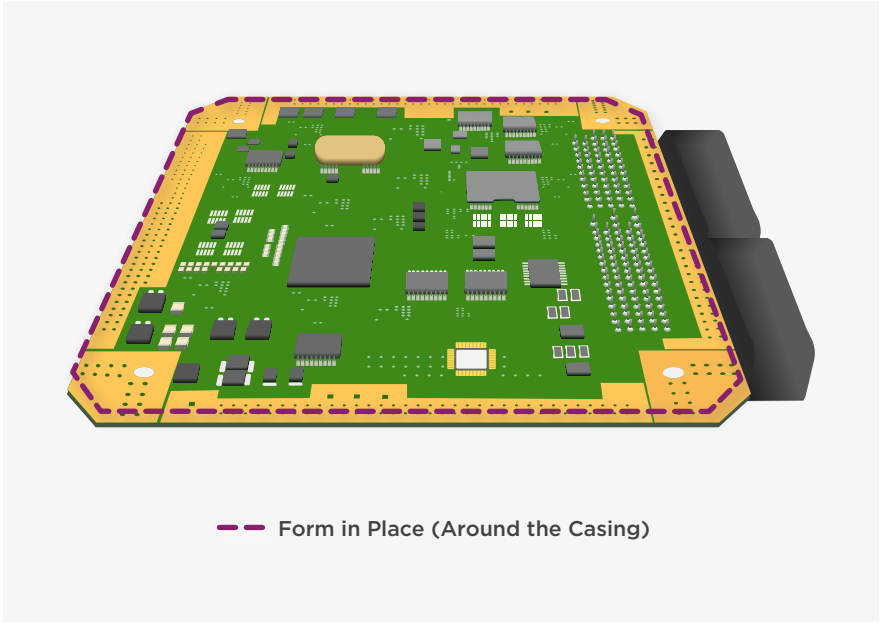
LEVELS OF AUTONOMOUS DRIVING



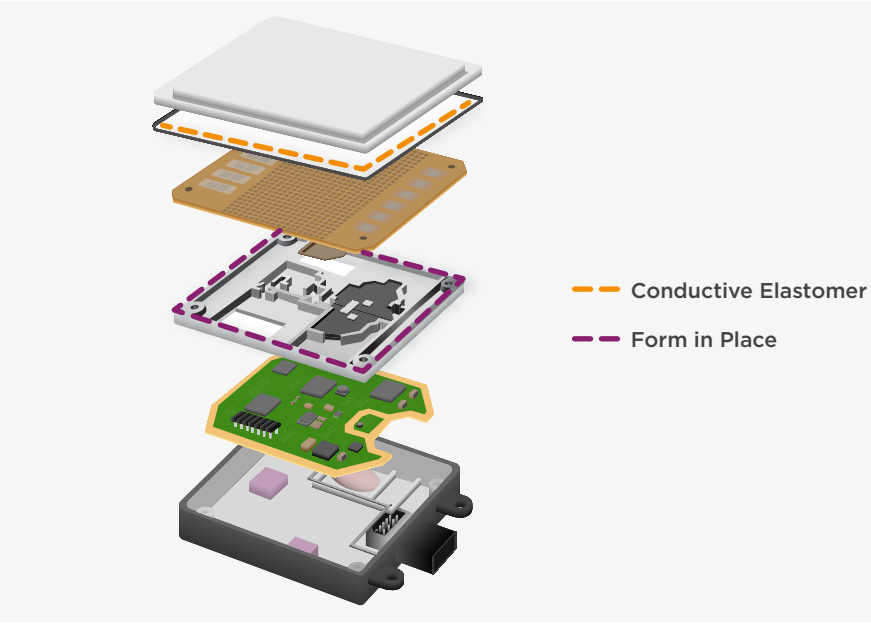
CAMERA

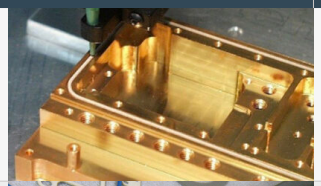
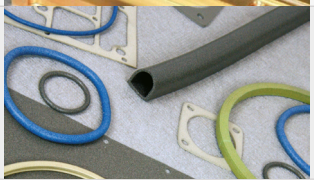


DATA MODULE

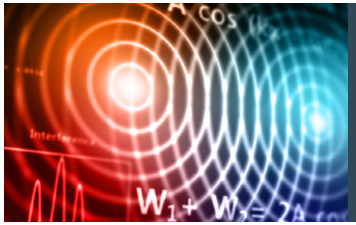


RADAR



APPLICATION	SHIELDING TYPE		FEATURES	BENEFITS
Housing Seal	Form-in-Place		• Elastomer compound dispensed directly onto hardware • EMI shielding and/or environmental seal for dust and moisture	• Suited to applications where small intricate EMI gasket profiles are required • Can reduce assembly costs • Low closure force
	Conductive elastomer		• Silicone or fluorosilicone loaded with highly conductive particles providing superior EMI shielding performance combined with excellent environmental sealing	• Material options to provide required EMI performance and galvanic compatibility • Provides low contact resistance between mating surfaces

EXPLORE OUR FULL EMI SHIELDING SOLUTIONS PORTFOLIO



White paper: Electromagnetic Interference Shielding

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