

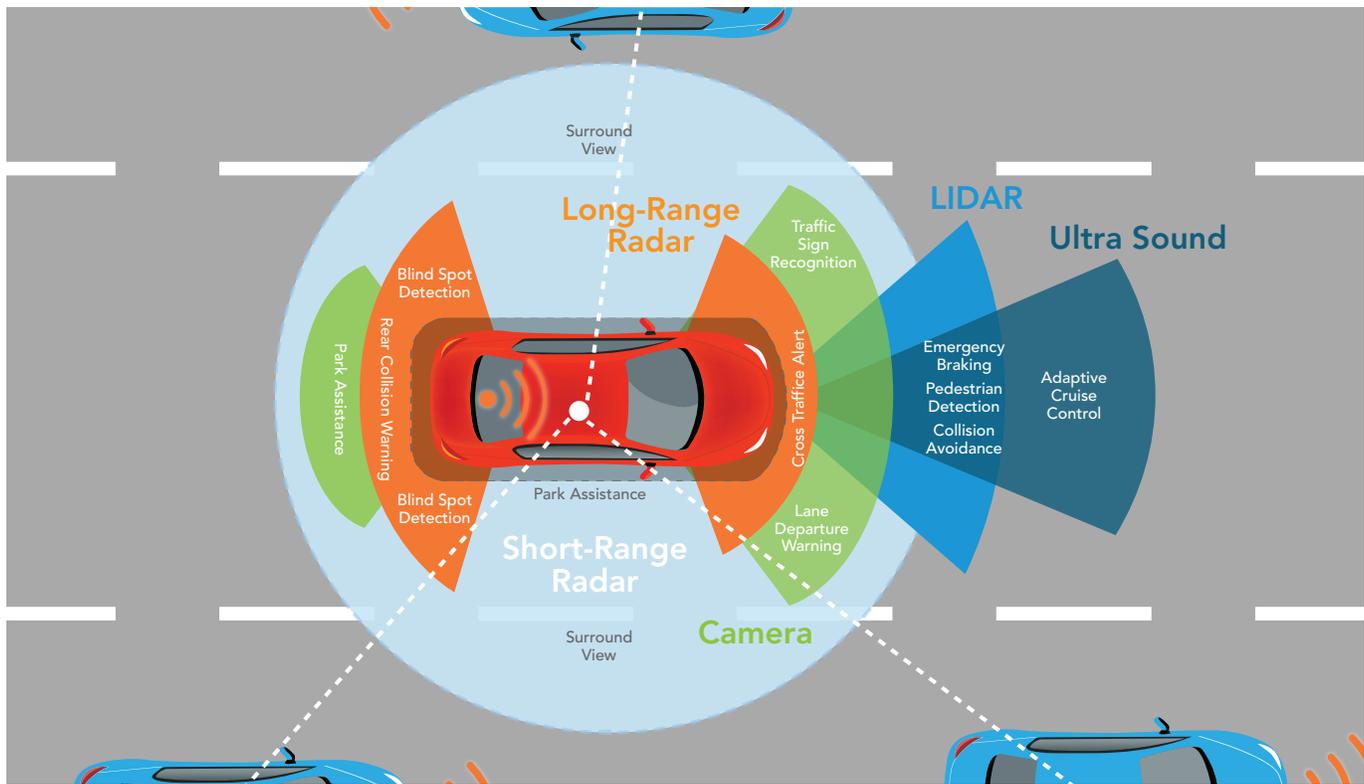
ADVANCED DRIVER ASSISTANCE SYSTEMS (ADAS)

Materials Technologies Providing the Highest Levels of In-Service Reliability for Advanced Vision and Detection Technology

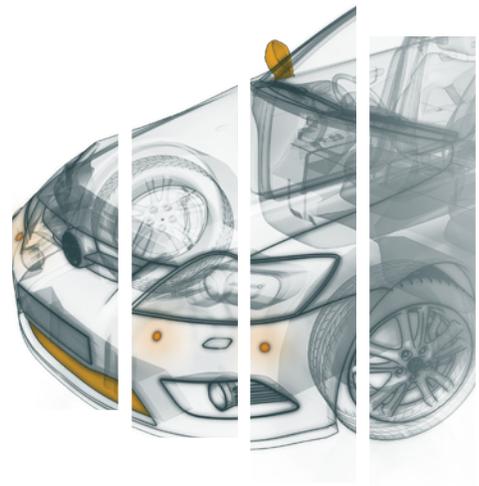
Advanced vision and detection systems are developed to play more critical roles within the vehicle. These Advanced Driver Assistance Systems (ADAS) include; Lane Departure Warning Systems (LDWS), Lighting, Detection and Ranging (LIDAR), Active Cruise Control and Front/Rear View Cameras to assist and automate parking.

The integration of these systems has driven a new level of miniaturization and an even greater emphasis on long-term reliability.

Alpha is at the forefront of developing solutions which give the ultimate process performance through superior print and reflow yield for the finest pitch components. Fine pitch materials provide the highest levels of in-service reliability for cameras and sensors.



PRODUCT TYPE	PRODUCT NAME	PERFORMANCE IMPACT
Solder Paste	ALPHA® CVP-390 SAC305, InnoLot	Excellent printability and electrochemical reliability on fine pitch components
	ALPHA® OM-353 SAC305, InnoLot	Increased process stability
	ALPHA® OM-358 SAC305, InnoLot	Enhanced thermal and electrical performance
Preforms	ALPHA® Exactalloy® Tape and Reel Preforms	Provide reliable joints on SMT connectors with a purely SMT reflow process
		Optimum solder volume with high density interconnects
	ALPHA® AccuFlux™ Preforms	Maximize void reduction



HIGH PERFORMANCE SOLDER PASTES

ALPHA® solder paste technology has been developed to provide a wide processing window whilst providing industry leading electrochemical reliability performance. It is designed for use in Automotive environments where operating temperatures do not exceed 120°C.

PRODUCT TYPE	SOLDER PASTE
CVP-390	Zero Halogen, no-clean solder paste flux system Excellent pin testing properties Electrochemical reliability down to 0.100mm on the most challenging automotive SIR profiles Consistent fine pitch printing capability down to 180um circle printed with 100um thickness
OM-353	Zero-Halogen, no-clean solder paste flux system Excellent residue containment Electrochemical reliability down to 0.200mm on the most challenging automotive SIR profiles Consistent fine pitch printing capability down to 160um circle printed with 100um thickness
OM-358	Zero-Halogen, no-clean solder paste flux system <10% voiding on bottom termination components Electrochemical reliability down to 0.200mm on the most challenging automotive SIR profiles

SOLDER PREFORMS FOR THE ULTIMATE PROCESS OPTIMIZATION

ALPHA® Exactalloy® Preforms and AccuFlux™ Technology

ALPHA® Exactalloy® Preforms precisely increase solder volume in paste applications, achieving 100% hole fill with a wide variety of pin and hole ratios, even for thick PCBs. These preforms complement the printed solder paste to provide adequate and predictable solder volume for reliable through-hole connector attach in Automotive Electronics. AccuFlux™ technology is also available for ALPHA® Preforms to maximize void reduction. The preforms are coated with a precise amount of micro-flux to reduce residue and voids.

PRODUCT TYPE	SOLDER PREFORMS
Exactalloy® Tape & Reel Preforms	Tape & Reel packaging allows drop in replacement with any existing SMT line Maximize solder volume for ideal joint integrity Available in a range of shapes and sizes for flexibility in design
AccuFlux™ Preforms	Precision microflux coating ensures effective solderability with minimal residue Achieve <10% voiding under troublesome bottom termination components Maximize flux to solder ratio to eliminate flux spattering and mid-chip solder balls

