Hazard ID		HA-001	HA-002	HA-003	HA-004
Situational Analysis	**Operational Mode**	OM03 - Normal driving	OM03 - Normal driving	OM03 - Normal driving	OM03 - Normal driving
	Operational Scenario	OS04 - Highway	OS03 - Country Road	OS02 - City Road	OS01 - Any Road
	Environmental Details	EN01 - Normal conditions	EN01 - Normal conditions	EN07 - Snow (slippery road)	EN09 - N/A
	Situation Details	SD02 - High speed	SD02 - High speed	SD02 - High speed	SD06 - High braking
	Other Details (optional)				
	Item Usage (function)	IU01 - Correctly used	IU02 - Incorrectly used	IU01 - Correctly used	IU01 - Correctly used
	Situation Description	Normal driving on Highway during rain (slippery conditions) with high speed and correctly used system	Normal driving on country roads during normal conditions with high speed, the driver is misusing the lane keeping assistance function (as an autonomous function)	Normal driving on City Road coverd with snow (slippery conditions) with low speed and correctly used system	Normal driving on Any roads during Any conditions with high Braking, the driver correctly using the lane keeping assistance function.
Identification	**Function**	Lane Departure Warning (LDW) function shall apply an oscillating steering torque to provide the driver with haptic feedback	Lane Keeping Assistance (LKA) function shall apply the steering torque when active in order to stay in ego lane	Lane Departure Warning (LDW) function shall apply an oscillating steering torque to provide the driver with haptic feedback	Lane Keeping Assistance (LKA) function shall apply the steering torque when active in order to stay in ego lane
	Deviation	DV04 Actor effect is too much	DV03 Function always activated	DV11 - Actor effect is wrong	DV02 - Function unexpectedly activated
	Deviation Details	The LDW function applies an oscillating torque with very high torque (above limit).	the lane keeping assistance function is always activate	The LDW function applies false oscillating torque frequantly.	the lane keeping assistance function is NOT required in such situation
	Hazardous Event (resulting effect)	EV00 - Collision with other vehicle	EV00 - Collision with other vehicle	EV03 - Car spins out of control	EV03 - Car spins out of control

Hazard Id	**Event Details**	High haptic feedback can affect driver's ability to steer as intended. The driver could lose control of the vehicle and collide with another vehicle or with road infrastructure.	lane keeping assistance was always on and had no time limit, driver hands may NOT be on the wheel at high speeds, a vehicle accident would not be controllable.	lanes are not clear on icey road, which fires false LDWs	lane keeping assistance tries to apply steering torque while Hard break, a vehicle accident would not be controllable.
	Hazardous Event Description	The LDW function applies too high an oscillating torque to the steering wheel (above limit).	The lane keeping assistance function was NOT meant for fully autonomous driving.	the LDW function applies wrong oscillating torque to steering wheel	The lane keeping assistance function is NOT required while Hard Breaking is performed
Hazardous Event Classification	**Exposure (of situation)**	E3 - Medium probability	E2 - Low probability	E1 - Very low probability	E3 - Medium probability
	Rationale (for exposure)	Driving On slippary Highway (because of rain) is very frequant	(on Highway with Highspeed + Misuse system) combination	once in a year or less.	once a month or more, situation is frequant in chaotic
	Severity (of potential harm)	S3 - Life-threatening or fatal injuries	S3 - Life-threatening or fatal injuries	S3 - Life-threatening or fatal injuries	S2 - Severe and life-threatening injuries
	Rationale (for severity)	Highway Speed limits are relativly high, and crashing on high speed is life-theatening	Crash on high speed is fatal	on high speed, car crash is fataly harmful	on Hard break, and sudden steering may flip the car, or cause a crash on low speed
	Controllability (of hazardous event)	C3 - Difficult to control or uncontrollable	C3 - Difficult to control or uncontrollable	C3 - Difficult to control or uncontrollable	C2 - Normally controllable
	Rationale (for controllability)	less than 90% of all drivers were able to avoid harm in that setuation	less than 90% of all drivers were able to avoid harm in that setuation	less than 90% of drivers can control slippary car on icey road	90 % or more of all drivers or other traffic participants are usually able to avoid harm, we don't see cars flipping more often
Determination of ASIL and Saf	**ASIL Determination**	ASIL C	ASIL B	ASIL A	ASIL A
	Safety Goal	The oscillating torque from the Lane Departure Warning (LDW) function shall be limited.	The lane keeping assistance function shall be time limited and the additional steering torque shall end after a given time interval so that the driver cannot misuse the system	The oscillating torque from the Lane Departure Warning (LDW) function shall stop when driver is trying to control the car in bad weather conditions.	The lane keeping assistance function shall be terminated when driver put his foot on the breaks.