Ford	Ford Motor Comp	any	Subsystem Technolo	ogy Specific Specification
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1 HUD V2I LITE IOD - FNV2+

1.1 Functional Description

This STSS handles the functions associated with the V2I LITE feature. V2I LITE (Vehicle to Infrastructure) Floating IOD (Information on Demand) provides display of Traffic Light information by IVI (in-vehicle infotainment system). When the information is available, V2I LITE IOD displays the corresponding UI in HUD. HUD receives the pre-defined CAN signals from IVI.

HUD support following two V2I LITE features:

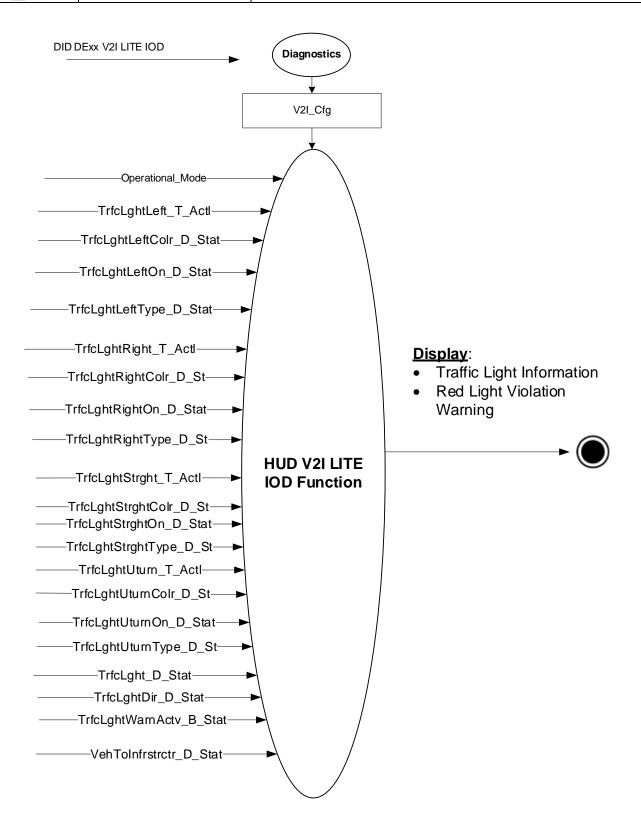
- 1. Traffic Light Information (TLI)
- 2. Red Light Violation Warning

1.2 Interfaces

1.2.1 REQ-436907/A-Interface Context Diagram (I/O Block Diagram)

V2I LITE IOD Function Context Diagram





1.2.2 Inputs

1.2.2.1 **INTERNAL**:

- Signals are divided into two messages, 0x276 (TrafficLight_Data_2) & 0x273 (TrafficLight_Data_1)
- CAN Bus Signal Inputs from V2I LITE APP on APIM(SYNC+)

1.2.2.2 MUX message on the CAN Bus

1.2.2.2.1 SIG-REQ-436879/A-TrfcLghtLeft_T_Actl Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtLeft_T_ActI	8		second	1	0		0 (0x0)	253 (0xFD)
		NoDataExists				0xFE		
		Faulty				0xFF		

1.2.2.2.2 SIG-REQ-436880/A-TrfcLghtLeftColr_D_Stat Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtLeftColr_D_Stat	3		SED	1	0		0 (0x0)	7 (0x7)
		Inactive				0x0		
		Red				0x1		
		Orange				0x2		
		Green				0x3		
		NotUsed_1				0x4		
		NotUsed_2				0x5		
		NoDataExists				0x6		
		Faulty				0x7		

1.2.2.2.3 SIG-REQ-436881/A-TrfcLghtLeftOn_D_Stat Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtLeftOn_D_Stat	3		SED	1	0		0 (0x0)	7 (0x7)
		Inactive				0x0		
		On				0x1		
		Blink				0x2		
		FocusedOn				0x3		
		FocusedBlink				0x4		
		NotUsed				0x5		
		NoDataExist				0x6		
		Faulty				0x7		

1.2.2.2.4 SIG-REQ-436882/A-TrfcLghtLeftType_D_Stat Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtLeftType_D_Stat	2		SED	1	0		0 (0x0)	3 (0x3)

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	Inactive		0x0	
	RoundBall		0x1	
Di	rectionalArrow		0x2	
	Faulty		0x3	

1.2.2.2.5 SIG-REQ-436883/A-TrfcLghtRight_T_Actl Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtRight_T_Actl	8		second	1	0		0 (0x0)	253 (0xFD)
		NoDataExists				0xFE		
		Faulty				0xFF		

1.2.2.2.6 SIG-REQ-436884/A-TrfcLghtRightColr_D_St Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtRightColr_D_St	3		SED	1	0		0 (0x0)	7 (0x7)
		Inactive				0x0		
		Red				0x1		
		Orange				0x2		
		Green				0x3		
		NotUsed_1				0x4		
		NotUsed_2				0x5		
		NoDataExists				0x6		
		Faulty				0x7		

1.2.2.2.7 SIG-REQ-436885/A-TrfcLghtRightOn_D_Stat Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtRightOn_D_Stat	3		SED	1	0		0 (0x0)	7 (0x7)
		Inactive				0x0		
		On				0x1		
		Blink				0x2		
		FocusedOn				0x3		
		FocusedBlink				0x4		
		NotUsed				0x5		
		NoDataExist				0x6		
		Faulty				0x7		

1.2.2.2.8 SIG-REQ-436886/A-TrfcLghtRightType_D_St Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtRightType_D_St	2		SED	1	0		0 (0x0)	3 (0x3)
		Inactive				0x0		
		RoundBall				0x1		
		DirectionalArrow				0x2		
		Faulty				0x3		

1.2.2.2.9 SIG-REQ-436887/A-TrfcLghtStrght_T_Actl Signal

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Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtStrght_T_ActI	8		second	1	0		0 (0x0)	253 (0xFD)
		NoDataExists				0xFE		
		Faulty				0xFF		

1.2.2.2.10 SIG-REQ-436888/A-TrfcLghtStrghtColr_D_St Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtStrghtColr_D_St	3		SED	1	0		0 (0x0)	7 (0x7)
		Inactive				0x0		
		Red				0x1		
		Orange				0x2		
		Green				0x3		
		NotUsed_1				0x4		
		NotUsed_2				0x5		
		NoDataExists				0x6		
		Faulty				0x7		

1.2.2.2.11 SIG-REQ-436889/A-TrfcLghtStrghtOn_D_Stat Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtStrghtOn_D_Stat	3		SED	1	0		0 (0x0)	7 (0x7)
		Inactive				0x0		
		On				0x1		
		Blink				0x2		
		FocusedOn				0x3		
		FocusedBlink				0x4		
		NotUsed				0x5		
		NoDataExist				0x6		
		Faulty				0x7		

1.2.2.2.12 SIG-REQ-436890/A-TrfcLghtStrghtType_D_St Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtStrghtType_D_St	2		SED	1	0		0 (0x0)	3 (0x3)
		Inactive				0x0		
		RoundBall				0x1		
		DirectionalArrow				0x2		
		Faulty				0x3		

1.2.2.2.13 SIG-REQ-436891/A-TrfcLghtUturn_T_Actl Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtUturn_T_Actl	8		second	1	0		0 (0x0)	253 (0xFD)
		NoDataExists				0xFE		
		Faulty				0xFF		

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1.2.2.2.14 SIG-REQ-436892/A-TrfcLghtUturnColr_D_St Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtUturnColr_D_St	3		SED	1	0		0 (0x0)	7 (0x7)
		Inactive				0x0		
		Red				0x1		
		Orange				0x2		
		Green				0x3		
		NotUsed_1				0x4		
		NotUsed_2				0x5		
		NoDataExists				0x6		
		Faulty				0x7		

1.2.2.2.15 SIG-REQ-436893/A-TrfcLghtUturnOn_D_Stat Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtUturnOn_D_Stat	3		SED	1	0		0 (0x0)	7 (0x7)
		Inactive				0x0		
		On				0x1		
		Blink				0x2		
		FocusedOn				0x3		
		FocusedBlink				0x4		
		NotUsed				0x5		
		NoDataExist		·		0x6		
		Faulty		·		0x7		

1.2.2.2.16 SIG-REQ-436894/A-TrfcLghtUturnType_D_St Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtUturnType_D_St	2		SED	1	0		0 (0x0)	3 (0x3)
		Inactive				0x0		
		RoundBall				0x1		
		DirectionalArrow				0x2		
		Faulty				0x3		

1.2.2.2.17 SIG-REQ-436895/A-TrfcLght_D_Stat Signal

Signal Name	Size (bits)	Detail	Unit s	Res.	Offs et	State Encoded	Min	Max
TrfcLght_D_Stat	3		SED				0 (0x0)	7 (0x7)
		OffOrNoMatchedLight				0x0		
		One				0x1		
		Two				0x2		
		Three				0x3		
		Four				0x4		
		NotUsed				0x5		
		NoDataExists			•	0x6		
		Faulty			•	0x7		

1.2.2.2.18 SIG-REQ-436896/A-TrfcLghtDir_D_Stat Signal

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Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtDir_D_Stat	3		SED	1	0		0 (0x0)	7 (0x7)
		Inactive				0x0		
		StraightActivated				0x1		
		LeftActivated				0x2		
		RightActivated				0x3		
		UtrunActivated				0x4		
		NotUsed				0x5		
		NoDataExist				0x6		
		Faulty				0x7		

1.2.2.2.19 SIG-REQ-436897/A-TrfcLghtWarnActv_B_Stat Signal

Signal Name	Size (bits)	Detail	Units	Res.	Offset	State Encoded	Min	Max
TrfcLghtWarnActv_B_Stat	1		SED	1	0		0 (0x0)	1 (0x1)
		Off				0x0		
		On				0x1		

1.2.2.2.20 SIG-REQ-436898/A-VehToInfrstrctr_D_Stat Signal

Signal Name	Size (bits)	Detail	U nit s	Res.	Off set	State Encoded	Min	Max
VehToInfrstrctr_D_Stat	3		SED	1	0		0 (0x0)	7 (0x7)
		InServiceFunctionOK				0x0		
		InServiceWithoutV2IData				0x1		
		LostConnection				0x2		
		SubComponentUnknownE rror				0x3		
		NotUsed_1				0x4		
		NotUsed_2				0x5		
		NoDataExists				0x6		
		Faulty				0x7		

1.2.3 Outputs

1.2.3.1 INTERNAL:

o Display the designated UI

1.3 Function/Performance

1.3.1 F-REQ-436917/A-Operational Modes

Mode	Differentiating Vehicle Conditions
Sleep Mode	V2I LITE IOD Disabled
Limited Mode	V2I LITE IOD Disabled
Normal Mode	V2I LITE IOD Enabled / Disabled
Crank Mode	V2I LITE IOD Enabled / Disabled

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1.3.2 Voltage Levels

Refer to the HUD Features table located in the Operational Modes and Voltage Range Strategies Section in this STSS.

1.3.3 Human-Machine Interface

1.3.3.1 Traffic Light Information (TLI)

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TLI enables to Driver to be informed the Traffic light information from his/her intention with current light status, phases, countdown, types etc. Basically, four directional information will be provided to customer, Straight, Left, Right & U-turn with same CAN signals set and structure.

Table 1.1 Maneuver and signal descriptions

Maneuver	Signal Name	Description
	TrfcLght_D_Stat	The total number of traffic information (maneuver) lights.
Straight Traffic Light		
	TrfcLghtStrght_T_Actl	The straight traffic light countdown to the current light color (phase).
	TrfcLghtStrghtColr_D_St	The straight traffic light color.
	TrfcLghtStrghtOn_D_Stat	The straight traffic light visual effect
	TrfcLghtStrghtType_D_St	The straight traffic light style.
Left Traffic Light		
	TrfcLghtLeft_T_Actl	The Left traffic light countdown to the current light color (phase).
	TrfcLghtLeftColr_D_Stat	The Left traffic light color.
	TrfcLghtLeftOn_D_Stat	The Left traffic light visual effect.
	TrfcLghtLeftType_D_Stat	The Left traffic light style.
Right Traffic Light		
	TrfcLghtRight_T_Actl	The Right traffic light countdown to the current light color (phase).
	TrfcLghtRightColr_D_St	The Right traffic light color.
	TrfcLghtRightOn_D_Stat	The Right traffic light visual effect.
	TrfcLghtRightType_D_St	The Right traffic light style.
U-turn Traffic Light		
	TrfcLghtUturn_T_Actl	The U-turn traffic light countdown to the current light color (phase).
	TrfcLghtUturnColr_D_St	The U-turn traffic light color.
	TrfcLghtUturnOn_D_Stat	The U-turn traffic light visual effect.
	TrfcLghtUturnType_D_St	The U-turn traffic light style.

1.3.3.2 Red Light Violation Warning

RLVW (Red Light Violation Warning) enables the customer to be notified a warning under the emergency situation, when the vehicle comes to a Green or Yellow Light, t will give a warning for the customer to decelerate before the light changes and avoid the unintentionally violate the traffic rule before Stop Line. HUD may receive the CAN signals as followings.

Table 1.2 RLVW signal descriptions

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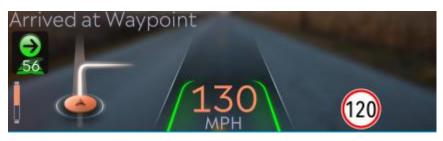
Signal Name	Description
TrfcLghtDir_D_Stat	The maneuver on which Green Light Optimal Speed Advisory (GLOSA) / Red Light Violation Warning (RLVW) is activated.
TrfcLghtWarnActv_B_Stat	Deceleration rate for Red Light Violation Warning (RLVW).

1.3.3.3 Visual

1.3.3.3.1 Indicator Graphics / Display Format











1.3.3.3.2	Indicator Color Coordinates

XXXXXX

1.3.3.3.3 Indicator Characteristics

XXXXXX

1.3.3.4 Audio

None

1.3.3.5 Switch Control Logic

None.

1.3.4 PFM-REQ-436918/A-System Accuracy

Within a fixed 100ms of receiving two messages that the HUD will update the display to the proper status.

- 1.3.5 Operation: Performance and Functional
- 1.3.5.1 Subsystem Algorithm Flowchart / State Diagram
- 1.3.5.2 Operation Description (supports algorithm flowchart /state diagram)



1.3.5.2.1 F-REQ-436919/B-V2I Traffic Light Information

Operational Mode	V2I_Cfg	VehToInfrstrctr_D_Stat	TrfcLght_D_Stat	TrfcLghtUturn_T_Actl	TrfcLghtUturnColr_D_St	TrfcLghtUturnOn_D_Stat	TrfcLghtUturnType_D_St	TrfcLghtLeft_T_Actl	TrfcLghtLeftColr_D_Stat	TrfcLghtLeftOn_D_Stat	TrfcLghtLeftType_D_Stat	TrfcLghtStrght_T_Actl	TrfcLghtStrghtColr_D_St	TrfcLghtStrghtOn_D_Stat	TrfcLghtStrghtType_D_St	TrfcLghtRight_T_Actl	TrfcLghtRightColr_D_St	TrfcLghtRightOn_D_Stat	TrfcLghtRightType_D_St	U Turn Light Countdown	Left Light Countdown	Straight Light Countdown	Right Light Countdown	Traffic Light Information
			One (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	No Data Exists (OxFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	No Data Exists (OxFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	Value of TrfcLghtUturn_T_ActI*	None	None	None	Display One V2I U Turn Light with RoundBall with either Red/Yellow/Gre en color
Normal or Crank	Enabled	InServiceFunctionOK (0x0)	One (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	Value of TrfcLghtUturn_T_Actl*	None	None	None	Display One V2I U Turn Light with Arrow with either Red/Yellow/Gre en color
roN		InService	One (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	RoundBall (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	None	Value of TrfcLghtLeft_T_Actl*	None	None	Display One V2I Left Light with RoundBall with either Red/Yellow/Gre en color
			One (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	DirectionalArrow (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	None	Value of TrfcLghtLeft_T_Ac	None	None	Display One V2I Left Light with Arrow with either Red/Yellow/Gre en color

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One (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	None	None	Value of TrfcLghtStrght_T_ Actl*	None	Display One V2I Straight Light with RoundBall with either Red/Yellow/Gre en color
One (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	Directional Arrow (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	None	None	Value of TrfcLghtStrght_T_ Actl*	None	Display One V2I Straight Light with Arrow with either Red/Yellow/Gre en color
One (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	RoundBall (0x1)	None	None	None	Value of TrfcLghtRight_T_Actl*	Display One V2I Right Light with RoundBall with either Red/Yellow/Gre en color
One (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	DirectionalArrow (0x2)	None	None	None	Value of TrfcLghtRight_T_Actl*	Display One V2I Right Light with Arrow with either Red/Yellow/Gre en color
Two (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	RoundBall (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	Value of TrfcLghtUturn_T_ Actl*	Value of TrfcLghtLeft_T_Ac	None	None	Display Two V2I U Turn and Left light with RoundBall with either Red/Yellow/Gree n color
Two (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	DirectionalArrow (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	Value of TrfcLghtUturn_T_ Actl*	Value of TrfcLghtLeft_T_Ac	None	None	Display Two V2I U Turn and Left light with Arrow with either Red/Yellow/Gree n color

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Two (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	Value of TrfcLghtUturn_T_ Actl*	None	Value of TrfcLghtStrght_T_ Actl*	None	Display Two V2I U Turn and Straight light with RoundBall with either Red/Yellow/Gree n color
Two (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	Directional Arrow (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	Value of TrfcLghtUturn_T_ Actl*	None	Value of TrfcLghtStrght_T_ Actl*	None	Display Two V2I U Turn and straight light with Arrow with either Red/Yellow/Gree n color
Two (0x2)	0 to FD*	0x1- Red or 0x2- Orange or 0x3- Green	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	RoundBall (0x1)	Value of TrfcLghtUturn_T_Actl*	None	None	Value of TrfcLghtRight_T_Actl*	Display Two V2I U Turn and Right light with RoundBall with either Red/Yellow/Gree n color
Two (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	DirectionalArrow (0x2)	Value of TrfcLghtUturn_T_Actl*	None	None	Value of TrfcLghtRight_T_Actl*	Display Two V2I U Turn and Right light with Arrow with either Red/Yellow/Gree n color
Two (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	RoundBall (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	None	Value of TrfcLghtLeft_T_Ac	Value of TrfcLghtStrght_T_ Actl*	None	Display Two V2I Left and Straight light with RoundBall with either Red/Yellow/Gree n color
Two (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	DirectionalArrow (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	None	Value of TrfcLghtLeft_T_Ac	Value of TrfcLghtStrght_T_ Actl*	None	Display Two V2I Left and Straight light with Arrow with either Red/Yellow/Gree n color

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Two (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	RoundBall (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	RoundBall (0x1)	None	Value of TrfcLghtLeft_T_Actl*	None	Value of TrfcLghtRight_T_Actl*	Display Two V2 Left and Right light with RoundBall witl either Red/Yellow/Gre n color
Two (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	DirectionalArrow (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	DirectionalArrow (0x2)	None	Value of TrfcLghtLeft_T_Actl*	None	Value of TrfcLghtRight_T_Actl*	Display Two V Left and Righ light with Arro with either Red/Yellow/Gi n color
Two (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	RoundBall (0x1)	None	None	Value of TrfcLghtStrght_T_Actl*	Value of TrfcLghtRight_T_Actl*	Display Two Straight an Right light w RoundBall w either Red/Yellow/G
Two (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	DirectionalArrow (0x2)	None	None	Value of TrfcLghtStrght_T_Actl*	Value of TrfcLghtRight_T_Actl*	Display Two Straight an Right light w Arrow wit either Red/Yellow/O n color
Three (0x3)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	RoundBall (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	Value of TrfcLghtUturn_T_ Actl*	Value of TrfcLghtLeft_T_Ac	Value of TrfcLghtStrght_T_ Actl*	None	Display Thr V2I U Turn, and Straig lights wit RoundBall v either

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																					Red/Yellow n colo
Three (0x3)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	DirectionalArrow (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoData Exists (0x6)	Inactive (0x0) OR NoData Exist (0x6)	Inactive (0x0)	Value of TrfcLghtUturn_T_ Actl*	Value of TrfcLghtLeft_T_Ac	Value of TrfcLghtStrght_T_ Actl*	None	Display T V2I U Turr and Stra lights with with eit Red/Yellow n colo
Three (0x3)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	RoundBall (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	RoundBall (0x1)	Value of TrfcLghtUturn_T_Actl*	Value of TrfcLghtLeft_T_Actl*	None	Value of TrfcLghtRight_T_Actl*	Display T V2I U Turr and Right with Rour with eit Red/Yellow n colo
Three (0x3)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	DirectionalArrow (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	DirectionalArrow (0x2)	Value of TrfcLghtUturn_T_Actl*	Value of TrfcLghtLeft_T_ActI*	None	Value of TrfcLghtRight_T_Actl*	Display T V2I U Turr and Right with Arrov eithe Red/Yellow n colo
Three (0x3)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	RoundBall (0x1)	Value of TrfcLghtUturn_T_ActI*	None	Value of TrfcLghtStrght_T_Actl*	Value of TrfcLghtRight_T_Actl*	Display T V2I U To Straight Right light RoundBal eithe Red/Yellow n colo
Three (0x3)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataE xists (0x6)	Inactive (0x0) OR NoDataExi st (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR	On (0x1) OR Blink (0x2) OR Focused On	DirectionalArrow (0x2)	Value of TrfcLghtUturn_T_ Actl*	None	Value of TrfcLghtStrght_T Actl*	Value of TrfcLghtRight_T_	Display T V2I U T Straight Right light Arrow v eithe

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														Green (0x3)	(0x3) OR Focused Blink (0x4)						Red/Yellow/Gre n color
Three (0x3)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	RoundBall (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	RoundBall (0x1)	None	Value of TrfcLghtLeft_T_Actl*	Value of TrfcLghtStrght_T_ActI*	Value of TrfcLghtRight_T_Actl*	Display Three V2I Left, Straig and Right light with RoundBa with either Red/Yellow/Gr
Three (0x3)	NoDataExists (0xFE)	Inactive (0x0) OR NoDataExi sts (0x6)	Inactive (0x0) OR NoDataExis t (0x6)	Inactive (0x0)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	DirectionalArrow (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	DirectionalArrow (0x2)	None	Value of TrfcLghtLeft_T_Actl*	Value of TrfcLghtStrght_T_Actl*	Value of TrfcLghtRight_T_Actl*	Display Three V2I Left, Straig and Right ligh with Arrow wi either Red/Yellow/Gr
Four (0x4)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	RoundBall (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	RoundBall (0x1)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	RoundBall (0x1)	Value of TrfcLghtUturn_T_Actl*	Value of TrfcLghtLeft_T_Actl*	Value of TrfcLghtStrght_T_ActI*	Value of TrfcLghtRight_T_Actl*	Display Four V U-Turn, Left, Straight and Right lights wi RoundBall wit either Red/Yellow/Gr n color
Four (0x4)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedO n (0x3) OR FocusedBl ink (0x4)	DirectionalArrow (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR FocusedOn (0x3) OR FocusedBli nk (0x4)	DirectionalArrow (0x2)	0 to FD*	Red (0x1) OR Orange (0x2) OR Green (0x3)	On (0x1) OR Blink (0x2) OR Focused On (0x3) OR Focused Blink (0x4)	DirectionalArrow (0x2)	Value of TrfcLghtUturn_T_Actl*	Value of TrfcLghtLeft_T_Actl*	Value of TrfcLghtStrght_T_ActI*	Value of TrfcLghtRight_T_Actl*	Display Four V U-Turn, Left, Straight and Right lights wi Arrow with either Red/Yellow/Gr n color

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*Note:

The maximum countdown number can be presented on HUD is two digits (99). Any received value from TrfcLghtXXX_T_Actl bigger than 99 shall be presented as 99 on HUD.

Any received value from TrfcLghtXXX_T_Actl is equal or smaller than 3 seconds need to be hided/concealed.

1.3.5.2.2 F-REQ-436902/A-V2I Red Light Violation Warning

Operational Mode	V2I_Cfg	VehToInfrstrctr_D_Stat	TrfcLghtWarnActv_B_Stat	TrfcLghtDir_D_Stat	Red Light Violation Warning
녿		0x0	0x1	0x1 or 0x2 or 0x3 or 0x4	W4411: Red Light Ahead! {ICON}
Normal or Crank	Enabled	0x0	0x1	0x0 or 0x5 or 0x6 or 0x7	None
ormal	Ena	0x0	0x0	х	None
ž		0x1 or 0x2 or 0x3 or 0x4 or 0x5 or 0x6 or 0x7	x	x	None
		All other Cases			None

1.3.5.2.3 F-REQ-436903/A-V2I LITE IOD Enable/Disable

HUD shall provide the V2I LITE IOD function if VehToInfrstrctr_D_Stat = 0x0(Enabled). HUD shall not provide the V2I LITE IOD function if VehToInfrstrctr D Stat! = 0x0 (Disabled).

1.3.5.2.4 F-REQ-436922/A-RLVW Warning Message

The RLVW need to be arbitrated with other Global Warning Message and the details finalized as followings.

ID	Se.#	System Name	Warn Type	Time Out	LM	ICON*	Message Color	Chime Type	Representative Text
W4411	102	V2I lite- Red Light warning	NGA	n/a	No	TBD	Red	No	Red Light Ahead! {ICON}

1.3.5.2.5 F-REQ-436923/A-TrfcLghtXXX_T_Actl countdown

The maximum countdown number can be presented on HUD is two digits (99). Any received value from TrfcLghtXXX_T_ActI bigger than 99 shall be presented as 99 on HUD.

1.3.5.2.6 F-REQ-436924/A-TrfcLghtXXX_T_ActI when hided/concealed

Any received value from TrfcLghtXXX T Actl is equal or smaller than 3 seconds need to be hided/concealed.

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1.3.5.3 Function Safety Classification (EMC)

Ford

Class B



1.3.5.4 NVM-REQ-436904/A-Memory Storage

Parameter Name	Description	Value at Battery Connect	Value at Module Wake-up	
Operational_Mode	4 state indicators for HUD operational mode.	Limited	Limited, Normal or Crank	
TrfcLghtLeft_T_Actl	The Left traffic light countdown to the current light color (phase).	0x0	0x0	
TrfcLghtLeftColr_D_Stat	The Left traffic light color.	0x0	0x0	
TrfcLghtLeftOn_D_Stat	The Left traffic light visual effect.	0x0	0x0	
TrfcLghtLeftType_D_Stat	The Left traffic light style.	0x0	0x0	
TrfcLghtRight_T_ActI	The Right traffic light countdown to the current light color (phase).	0x0	0x0	
TrfcLghtRightColr_D_St	The Right traffic light color.	0x0	0x0	
TrfcLghtRightOn_D_Stat	The Right traffic light visual effect.	0x0	0x0	
TrfcLghtRightType_D_St	The Right traffic light style.	0x0	0x0	
TrfcLghtStrght_T_ActI	The straight traffic light countdown to the current light color (phase).	0x0	0x0	
TrfcLghtStrghtColr_D_St	The straight traffic light color.	0x0	0x0	
TrfcLghtStrghtOn_D_Stat	The straight traffic light visual effect	0x0	0x0	
TrfcLghtStrghtType_D_St	The straight traffic light style.	0x0	0x0	
TrfcLghtUturn_T_ActI	The U-turn traffic light countdown to the current light color (phase).	0x0	0x0	
TrfcLghtUturnColr_D_St	The U-turn traffic light color.	0x0	0x0	
TrfcLghtUturnOn_D_Stat	The U-turn traffic light visual effect.	0x0	0x0	
TrfcLghtUturnType_D_St	The U-turn traffic light style.	0x0	0x0	
TrfcLght_D_Stat	The total number of traffic information (maneuver) lights.	0x0	0x0	
TrfcLghtDir_D_Stat	The maneuver on which Green Light Optimal Speed Advisory (GLOSA) / Red Light Violation Warning (RLVW) is activated.	0x0	0x0	
TrfcLghtWarnActv_B_Stat	Deceleration rate for Red Light Violation Warning (RLVW).	0x0	0x0	
VehToInfrstrctr_D_Stat	The Status of the Vehicle to Infrastructure (V2I) function.	0x0	0x0	

1.3.5.5 Reconfigurable Telltale

None

1.3.5.6 Prove Out

Not applicable

1.3.5.7 Message Center Msg

None. Refer to program specific menu structure for display text.

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1.3.5.8 Error Handling

1.3.5.8.1 SR-REQ-436906/A-Missing Message Strategy

The signals will be declared missing as per the Diagnostics section of this SPSS. DTCs states and history will be determined as per the Diagnostics section of this SPSS.

- If CAN signal VehToInfrstrctr_D_Stat is not received < 2s, use last value received.
- If CAN signal VehToInfrstrctr_D_Stat is not received >= 2s, use 0x6 value.

1.3.5.9 Diagnostics

1.3.5.9.1 Self-Test

None

1.3.5.9.2 Engineering Test Mode

None

1.3.5.9.3 Part II Performance

1.3.5.9.3.1 DTC-REQ-436921/A-Supported Diagnostic Trouble Codes (DTCs)

DTC	Description
	None

1.3.5.9.3.2 DID-REQ-436920/A-Supported Diagnostic DIDs

None

1.3.5.9.3.3 DCR-REQ-436905/A-DID DExx:

Block Num	Block Description	Byte(s)	Bits	State: Description	"0"	"1"	Default	Comments/ Information
PACKE	PACKETED BLOCKS							
\$xx	Option Content (B&A)			V2I_Cfg	Disabled	Enabled	Enabled	Enabled turns on V2I IOD
*Byte an	*Byte and bit location to be identified in Part II Specification for this HUD							

1.4 Reference Specification

None.

1.5 Revision History

SPSS Module Revision History

Revision Level	Name	Change Description	
1.0	F. Sethi	Initial Draft of HUD V2I LITE IOD	8/23/2021

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