

FORD LDM Localization - 功能 #2590

功能 # 2519 (已关闭): Ford_SYSR: System Requirement

Ford_SYSR : FS_REQ0069_V1 BCM EEL LDM Node Status Report Frame

2024-10-24 19:35 - 玉洁 金

状态:	已关闭	开始日期:	2024-10-29
优先级:	普通	计划完成日期:	2024-11-07
指派给:	槐 杨	% 完成:	100%
类别:		预期时间:	0.00 小时
目标版本:	H003_SW0007169.A001.8	耗时:	0.00 小时

描述

The following frame describes the signals being reported by the LDM

- Name: Node Status Message
- Size: 8 Byte
- Type: Node Status
- Identifier: See Header ID Table in Status Frame
- Sampling: <250 mS
- Signal names are prefixed in the BCM with xx_EEL_ with the xx representing the position callout for each module.

					LDM (LF_EEL_)				0x16	
					LDM (RF_EEL_)				0x24	
M/S	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0	ID	
M	P1	P0	ID5	ID4	ID3	ID2	ID1	ID0	See table Above	Identifier
S	ERR2	ERR1	ERR0	APINFO4	APINFO3	APINFO2	APINFO1	APINFO0		Data 1
S	(xx_EEL_) Load4	(xx_EEL_) Load3	(xx_EEL_) Load2	(xx_EEL_) Load1	(xx_EEL_) Load0	(xx_EEL_) WFSubstate_Status				Data 2
S	(xx_EEL_) LowBeam_Out age_Status	(xx_EEL_) ExtVfStat		(xx_EEL_) IntVfStat		(xx_EEL_) Fade_Active	(xx_EEL_) Headlamp_Failure	(xx_EEL_) LED_Temp_NotIdle		Data 3
S	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused		Data 4
S	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused		Data 5
S	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused		Data 6
S	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused		Data 7
S	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused		Data 8

Note: xx_EEL_ is the signal prefix used in the BCMto separate the signals to each LDM. Right Front = RF_EEL_WFSubstate_Status as an example.

Table 32: LIN Node Regular Status Frame

Data Name	Data Description	Min Value	Max Value	Unit	Resolution	Size	Comment
(xx_EEL_) WFSubstate_Status	0x0 = NULL 0x1 = IllumEntry 0x2 = IllumExit 0x3 = DoorAjarCourtesyLights 0x4 = CourtesyLightDelay 0x5 = Approach 0x7 = Reset	0	7	-	1	3	LIN Slaves will set WFSubstate to "Reset" at powerup and update to echo BCM WFSubstate after successful receipt of LIN Functional Command Frames from BCM.
(xx_EEL_) Load0	0x0 = Normal 0x1 = Fault	0	1	-	1	1	Internal Load(s) Fault Status (Replace Lamp Assembly)
(xx_EEL_) Load1	0x0 = Normal 0x1 = Fault	0	1	-	1	1	External to Lamp Assembly Load 1 Fault Status
(xx_EEL_) Load2	0x0 = Normal 0x1 = Fault	0	1	-	1	1	External to Lamp Assembly Load 2 Fault Status
(xx_EEL_) Load3	0x0 = Normal 0x1 = Fault	0	1	-	1	1	External to Lamp Assembly Load 3 Fault Status
(xx_EEL_) Load4	0x0 = Normal 0x1 = Fault	0	1	-	1	1	External to Lamp Assembly Load 4 Fault Status
(xx_EEL_) LED_Temp_Not_Idle	0x00: Temperature for the Vf learning ok. 0x01: Temperature for the Vf learning not ok.	0	1	-	1	1	This shall be reported always 0x00.
(xx_EEL_) Headlamp_Failure	0x00 = No issue . 0x01 = AFS function issue .	0	1	-	1	1	
(xx_EEL_) Fade_Active	0x0 = Inactive 0x1 = Active	0	1	-	1	1	Flag for the LDM to signal that a Fade Ramp is in progress . This shall be always set to "Inactive"
(xx_EEL_) IntVfStat	0x0 = OK 0x1 = In Process 0x2 = Fault	0	3	-	1	2	OK: Vf for internal loads programmed. InProcess : LDM is driving loads and learning Vf Thresholds . Fault: Vf Thresholds are not programmed or programming routine not successful .
(xx_EEL_) ExtVfStat	0x0 = OK 0x1 = In Process 0x2 = Fault	0	3	-	1	2	OK: Vf for external loads programmed. InProcess : LDM is driving loads and learning Vf Thresholds . Fault: Vf Thresholds are not programmed or programming routine not successful .
(xx_EEL_) LowBeam_Outage_Status	0x0 = OK 0x1 = Fault	0	1	-	1	1	ECE LED Lowbeam Outage - Telltale support

Table 33: Node Status Signal Description

Node Lighting Module Node Status Frame — LDM Signal Descriptions:

Node: WFSubstate_Status

This signal identifies the LDM operational status for Welcome/Farewell lamp control (Not Ignition On). As the LIN bus powers up the BCM will pace its command output based on readiness signaled in the WFSubstate_Status from the LDMs.

On power up or internal Reset, the LDM/FCM will set its WFSubstate_Status to Reset and will present this in the LDM status message until conditions have been met to allow sequencing thru the normal functions. See the WF State Transition Diagram. During normal operation, this transition should be seamless. If the LDM goes thru spurious Reset, this flow will provide a controlled startup of the LDM.

Node: LDM_Loadx (x = 0 to 4)

LDM_Load0 thru LDM_Load4 provide extended Load Fault Identification, allowing identification of the specific load(s) that are triggering the J2602 External Fault condition.

Load0: Static Bending light

Load1: LB

Load2: HB

Load3: TI

Load4: DRL

Node: IntVfStat (Not in Scope of LDM 4.x and set it to 0x00)

Node: ExtVfStat (Not in scope of LDM 4.x and set it to 0x00)

Node: Fade_Active (set it to 0x00)

Node: LowBeam_Outage_Status

This signal shall report the LDM output fault, detail please refer to LDM failure Mode&Diagnostic report.xlsx.

Node: Headlamp_Failure

This signal identifies an AFS failure for telltale support. It shall be set to 0x00 because this LDM can't support AFS function currently.

Node: LED_Temp_Not_Idle (set it to 0x00)

子任务:

功能 # 2820: Ford_SWER_0069_0001 : BCM EEL LDM Node Status Report ...

已关闭

功能 # 2867: Ford_SWER_0069_0002 : LDM_Load provide extended Load ...	已关闭
功能 # 2880: Ford_SWER_0069_0003 : LowBeam_Outage_Status feedback ...	已关闭
功能 # 2882: Ford_SWER_0069_0004 : The node that should be set to ...	已关闭

历史记录

#1 - 2024-10-25 10:26 - 涛陆

大部分完成

#2 - 2024-11-21 10:14 - 斌徐

- 状态从新建变更为已关闭

文件

clipboard-202410241933-r66na.png	32.9 KB	2024-10-24	玉洁金
clipboard-202410241933-ubmvi.png	50.4 KB	2024-10-24	玉洁金
工作表 在 C:\Users\yujiej\Documents\WXWork 1688857260357945\Cache File 20241024\IFS_LDM Load and V2.0.xlsx	2024-10-24	2024-10-24	玉洁金