

FORD LDM Localization - 功能 #2571

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

Ford_SYSR : FS_REQ0051_V1 NTC Calculation

2024-10-24 18:53 - 玉洁 金

状态:	已关闭	开始日期:	2024-10-31
优先级:	普通	计划完成日期:	2024-11-07
指派给:	涛 陆	% 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

Selection of the NTC is the responsibility of the headlamp supplier. The LDM shall be capable of supporting a wide variety of NTC resistors by configuring the R0 and B-constant of the thermistor within the LDM parameters. Resistance varies over temperature according to the following equation:

g to the following equation:

$$R = R_0 \cdot e^{-B \left(\frac{1}{T_0} - \frac{1}{T} \right)}$$

Where:
R = NTC Resistance at T (Ω)
R0 = Resistance at T0 (Ω)
B = NTC B – Constant value (K)
T0 = Nominal Temperature (typically 298.15K)
T = Temperature (K)
LDM shall calculate NTC resistor values and create appropriate look up table at first start of the LDM. This shall be done in parallel to normal operating mode to avoid increasing of latencies.

The NTC shall be comparable to MURATA NCU18WB473F6SRB or EPCOS B57351V5103H60.

A single NTC type must be used for a headlamp assembly NTCs. The nominal resistance values and B-constant values must fall within the parameters ‘ NTC_R0_cfg ’ and ‘ NTC_B_Constant_cfg ’.

The following image describes the LDM interface with the NTC and binning resistors within the headlamp assembly:

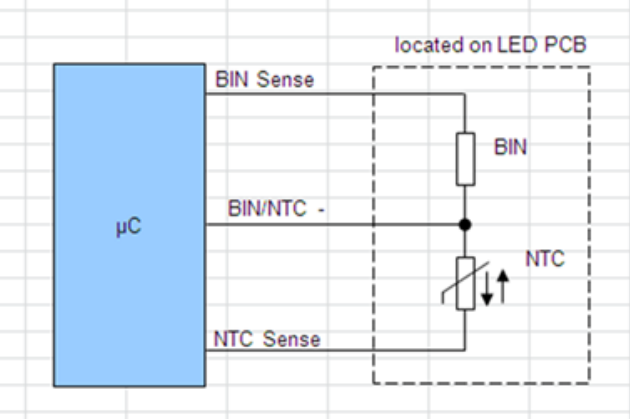


Figure 12: Circuit diagram of NTC and Binning resistor

子任务:	
功能 # 2625: Ford_SWER_0051_0001 : NTC temperature to resistance	已关闭
功能 # 2999: Ford_SWER_0051_002: Supported NTC component type	已关闭
功能 # 3000: Ford_SWER_0051_003: NTC Selection limitation	已关闭
功能 # 3002: Ford_SWER_0051_004: NTC resistance and B-constant v...	已关闭
功能 # 3003: Ford_SWER_0051_005: NTC connection method	已关闭

历史记录

#1 - 2024-10-25 10:04 - 涛 陆

完成

#2 - 2024-11-19 10:45 - 斌 徐

- 状态从 新建 变更为 已关闭

文件

clipboard-202410241852-jxpti.png	4.08 KB	2024-10-24	玉洁 金
clipboard-202410241853-sozaj.png	25.2 KB	2024-10-24	玉洁 金