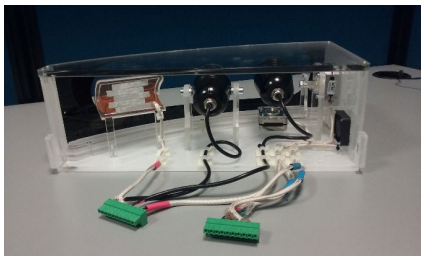
AEKD-AFLLIGHT1

Data brief

Loads for Adaptive Front Lighting (AFL) system with LED lights, motors and cooling fan



Features

- Vehicle headlight simulation equipment for adaptive front light (AFL) adjustment system:
  - two stepper motors for horizontal and vertical displacement
  - four LEDs for high beam, low beam, daytime running light (DRL) and turn indicator light
  - cooling fan
- Allows simulation and testing of complete car headlight assemblies and AFL applications
- Cables and connectors included
- Compatible with AEKD-AFLPANEL1 with all the required electronics to drive the system
- Assembled size: 400 x 200 x 140 mm (approx.)
- WEEE and RoHS compliant
- Part of the AutoDevKit initiative

Description

The AEKD-AFLLIGHT1 is a car headlight assembly able to accommodate adaptive front light (AFL) adjustment systems for simulation and development purposes. It consists of a plexiglass housing and two stepper motors for light projection angle adjustment in the x and y directions, a high beam lamp, a low beam lamp that can be directionally adjusted by the stepper motors, a LED string simulating the DRL and another LED string simulating a turn indicator, as well as a small cooling fan.

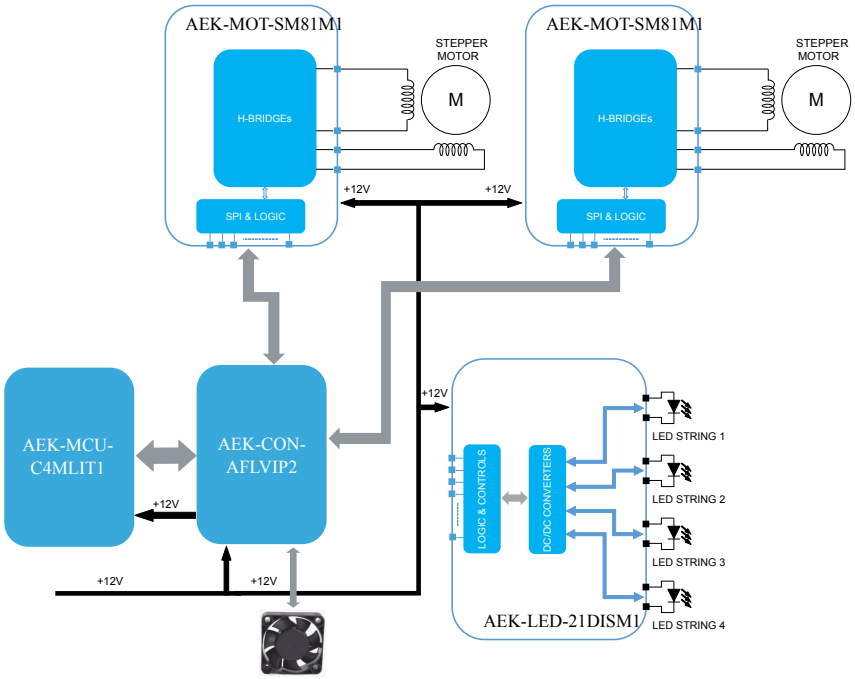
All the loads are wired to two connectors that can be directly plugged onto matching connectors on the AEKD-AFLPANEL1 companion ECU panel with all the necessary boards and drivers to control the system, allowing rapid prototyping and significantly shorter time to achieve application proof of concept and trial phases.

Product summary	
Adaptive front lighting motor, light and fan loads for AutoDevKit	AEKD-AFLLIGHT1
AutoDevKit adaptive front lighting kit	AEK-AFL001
AutoDevKit adaptive front lighting kit firmware	STSW-AFL001
Applications	Adaptive front lighting systems for vehicles Car chassis lighting

1 Adaptive front lighting simulation tool overview

The AEKD-AFLLIGHT1 kit includes all the loads indicated in the block diagram below inside a specially designed acrylic shroud with appropriate cabling and connectors.

Figure 1. AutoDevKit adaptive front lighting system block diagram



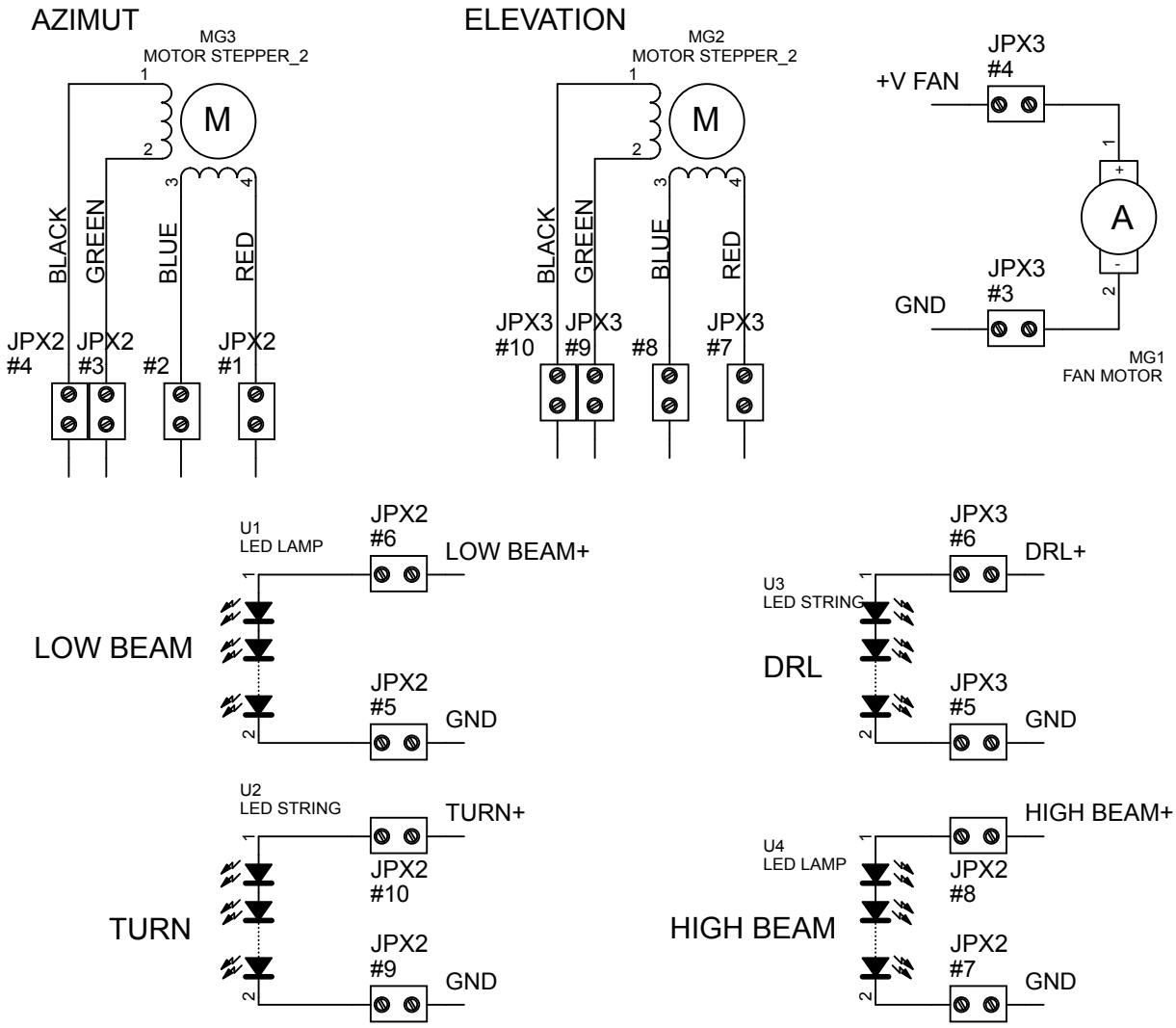
- AEKD-AFLLIGHT1 loads:
- two stepper motors: one for up-down and one for lateral angular displacement of a light
- four LED lighting strings: high beam, low beam, DRL, direction light
- a cooling fan

RELATED LINKS

AutoDevKit: Adaptive Front Lighting demonstration kit video on YouTube

2 Schematic diagrams

Figure 2. **AEKD-AFLLIGHT1 schematic diagram**



Revision history

Table 1. **Document revision history**

Date	Version	Changes
23-Aug-2019	1	Initial release.

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