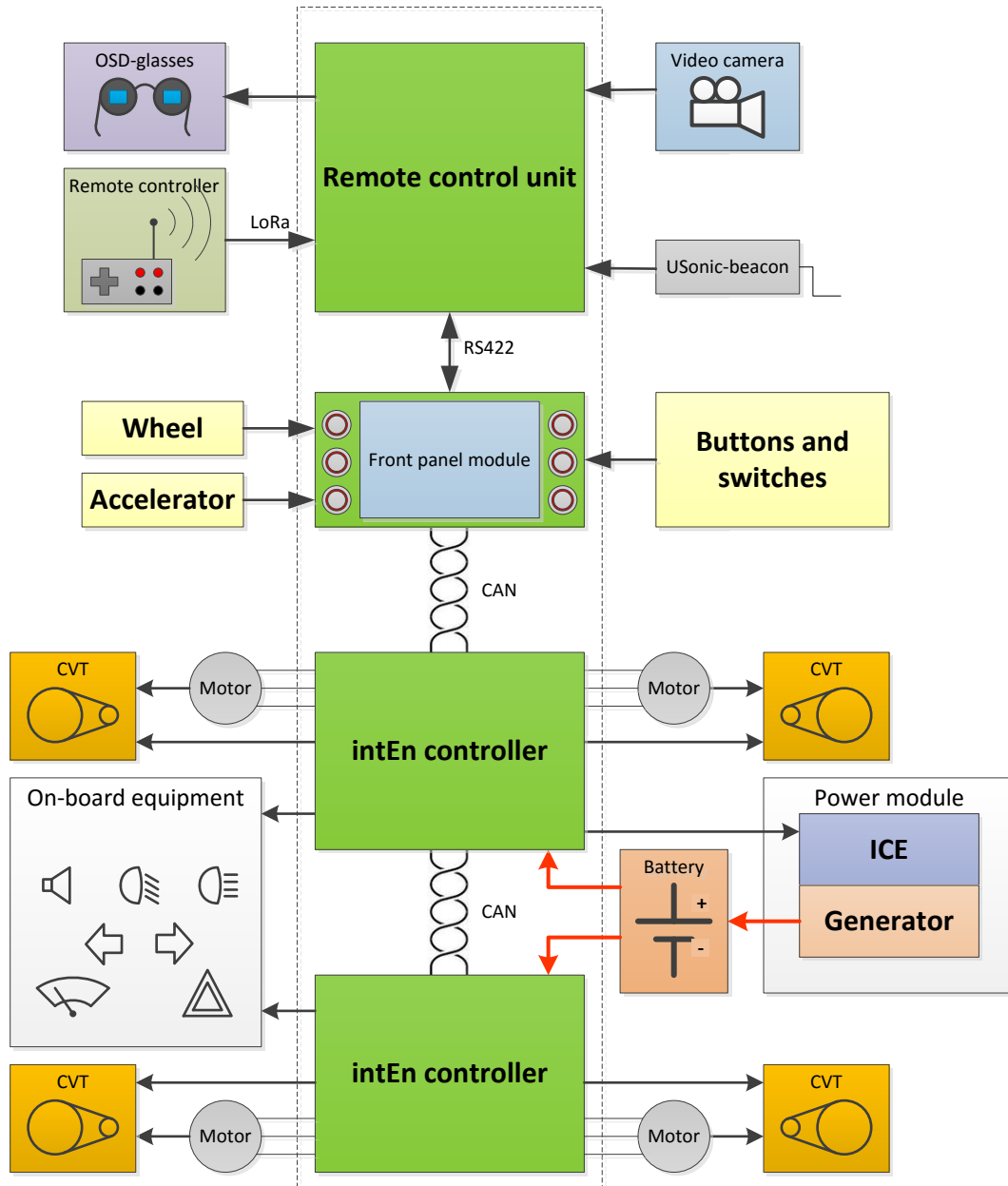


EV48 Electronic control system for electric/hybrid vehicles



1 Description

The electronic control system for electric/hybrid vehicles represents a complete solution for vehicles driven by asynchronous electric motors. The key elements of the system are front panel module, intEn controllers and remote control unit. The system structure is shown in picture 1.



Pic. 1

The system main capabilities and advantages are:

- Controlling a high power (up to 5 kW) synchronous three phase electric motors (BLDC or PMS), up to 2 motors per one intEn controller;
- Controlling an electronic variator, up to 2 variators per one intEn controller;
- Controlling a power module on the basis of carburetor IC engine and generator with the possibility to adjust the battery voltage;
- Controlling on-board equipment, with each intEn controller having 18 relays;

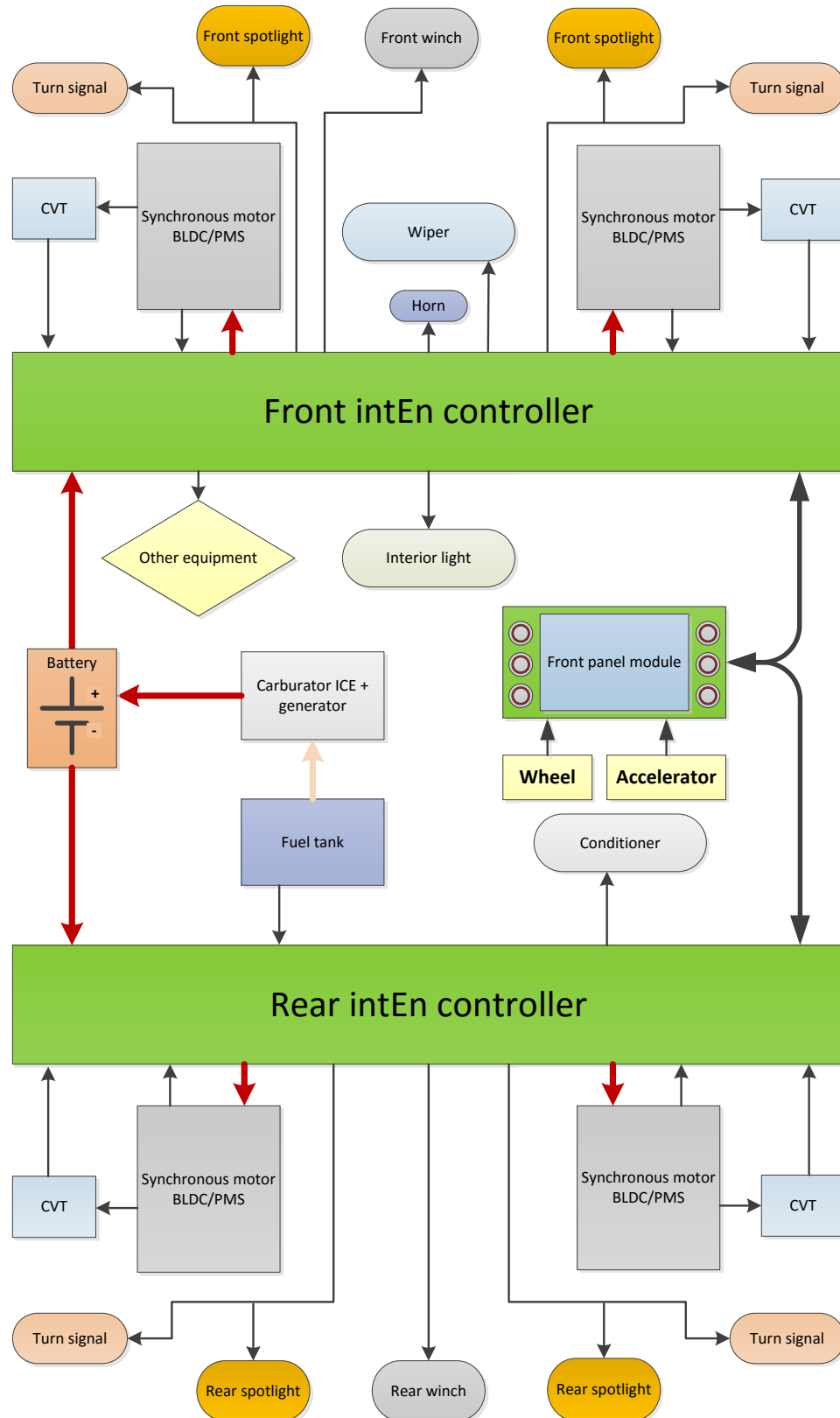
Electronic control system for electric/hybrid vehicles. Specification (version 0.1)

- On-board computer with a screen and graphic interface to view the system parameters and change the system settings;
- Overheat protection of electric motors and intEn controllers;
- Remote controlling of a vehicle via remote controller or ultrasonic beacon;
- The picture from the board video camera transmitted via radio channel overlaid with information from board computer;

2 Possible applications

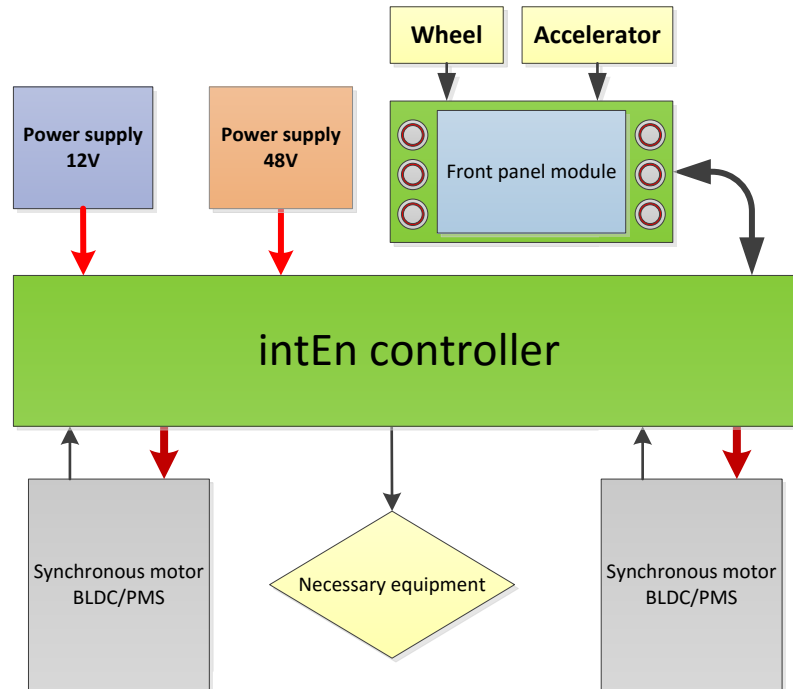
2.1 Typical configuration

Picture 2 shows a typical vehicle control system. For a system of this design you will need one front panel module and two intEn controllers to control the front and the back axels of a vehicle.



2.2 Minimal configuration

Pic. 3 shows minimal configuration of the systems consisting of one intEn controller and one front panel module. The controller operates electric motors and board equipment. Power sources supply necessary power for the work of electric motors and equipment.



Pic. 3