

# 3. ??????????

## 3. ??????????

### 3.1 ??????HV?

HV [ ] [ ]

#### Accumulator ??

```

[Accumulator ]
├─ Cell Stack[ ]
├─ AMS[BMS] → AMS_OK → SDC
├─ [ ] / [ ]
├─ HVD[High Voltage Disconnect] → SDC
├─ TS+ / TS-[ ]

```

```

[Accumulator ]
AIR+[Accumulator Isolation Relay ]
AIR-[Accumulator Isolation Relay ]
Precharge Relay + Precharge Resistor

```

#### Contactor / AIR ??

- [ ] [ ] **HV Contactor**[ ] TE Kilovac EV200[ ] Tyco EV series[ ]
- [ ] [ ] 12V [ ] 24V[ ] GLV [ ] SDC [ ]
- [ ] \*\*[ ] Auxiliary Contact[ ] \*\*[ ] VCU[ ] AIR [ ]

[ ] [ ] AIR+ [ ] AIR- [ ] Contactor  
[ ]

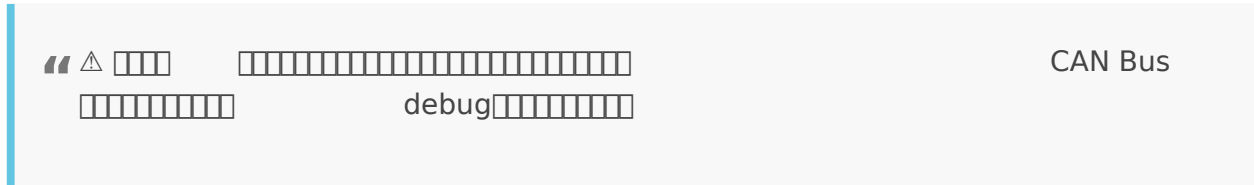
### 3.2 ??????LV / GLV?

GLV [ ] [ ]

- [ ] GLV [ ] or [ ] Accumulator [ ]
- GLV [ ] CAN [ ]
- [ ] DC-DC [ ] 5V for MCU[ ] 12V for [ ] 3.3V for [ ]

## GLV

- Single Point Grounding  GLV
- Ground Loop
- Signal GND  Power GND

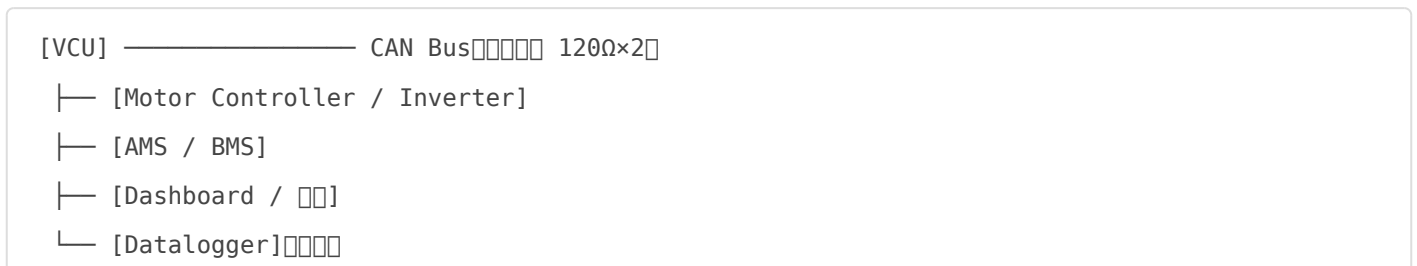


## 3.3 CAN Bus?

### CAN

- EMI
- 
- 
- FSAE

### 



### 1 Mbps 1Mbps

### 

- Shielded Twisted Pair
- 
- Bus  120Ω

## 3.4 VCU / MCU?

### VCU Vehicle Control Unit

- 
- 
-

- RTDS TSAL
- CAN Motor Controller AMS

- **STM32** STM32F4/H7 FSAE CAN
- **NXP S32**
- **PCB vs** PCB

“ VCU  
 Watchdog

??

HV GLV