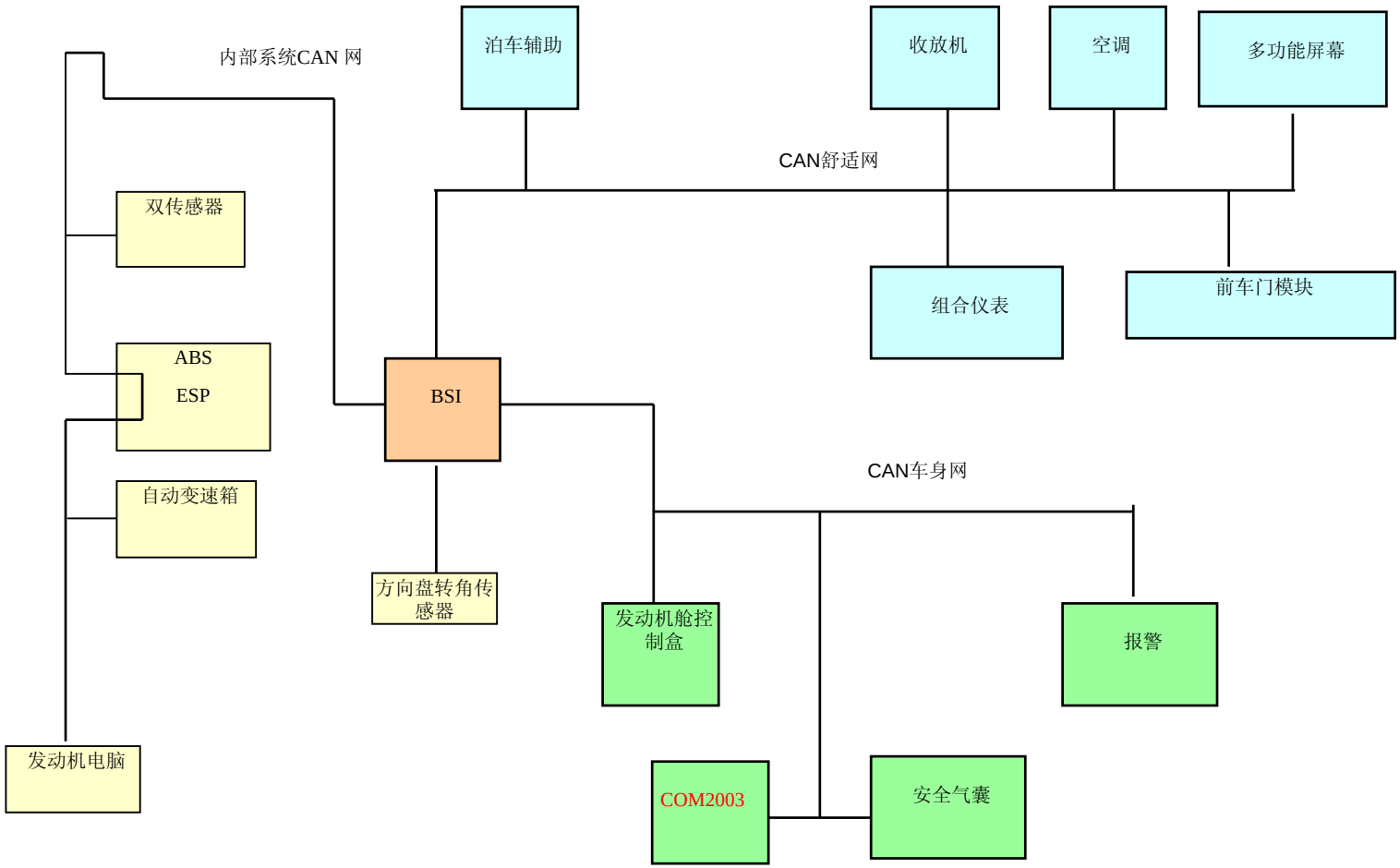
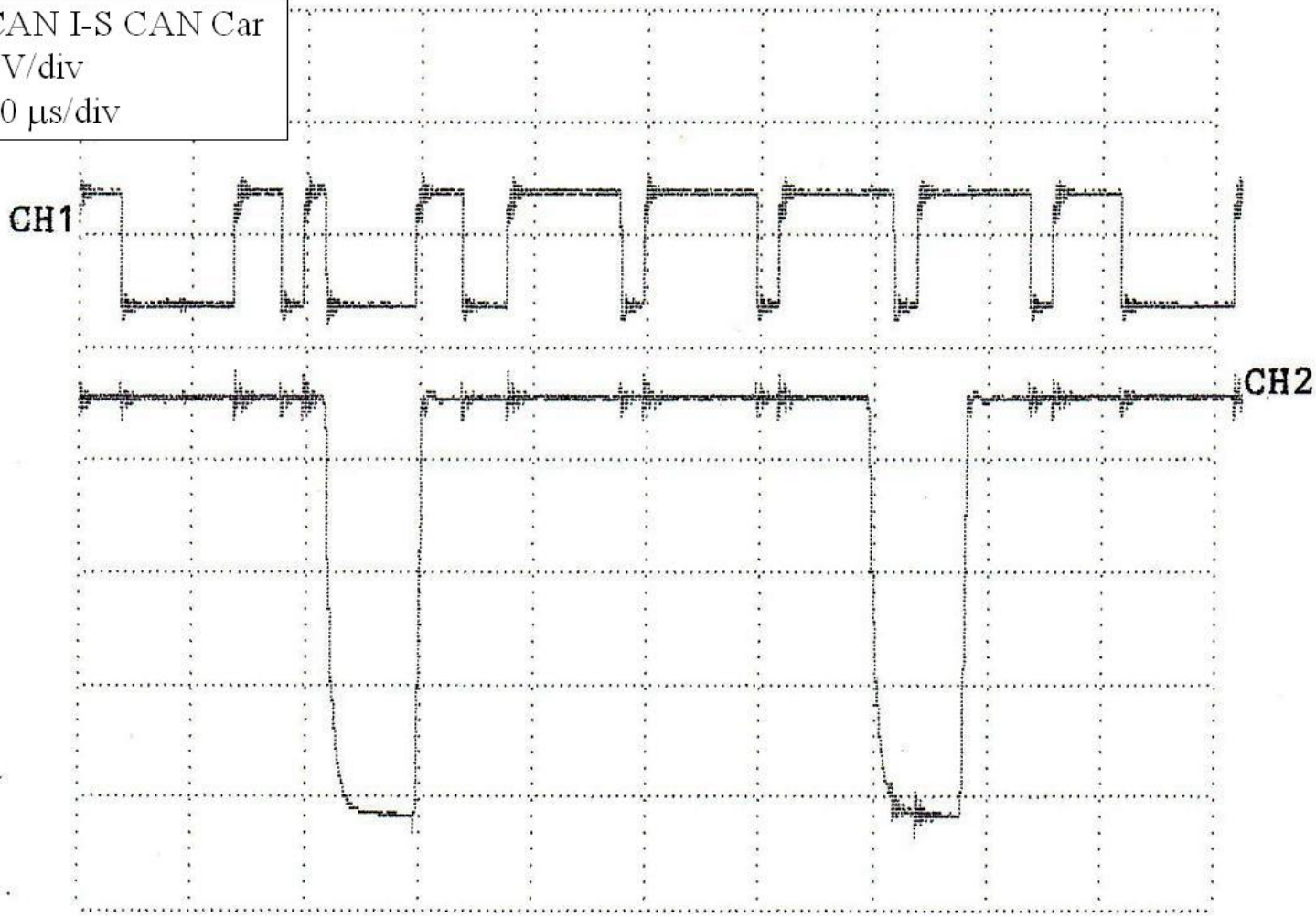
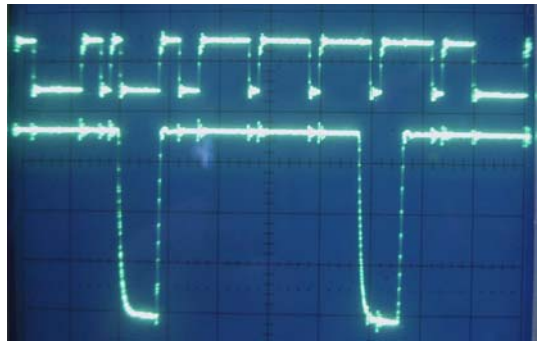
FULL CAN

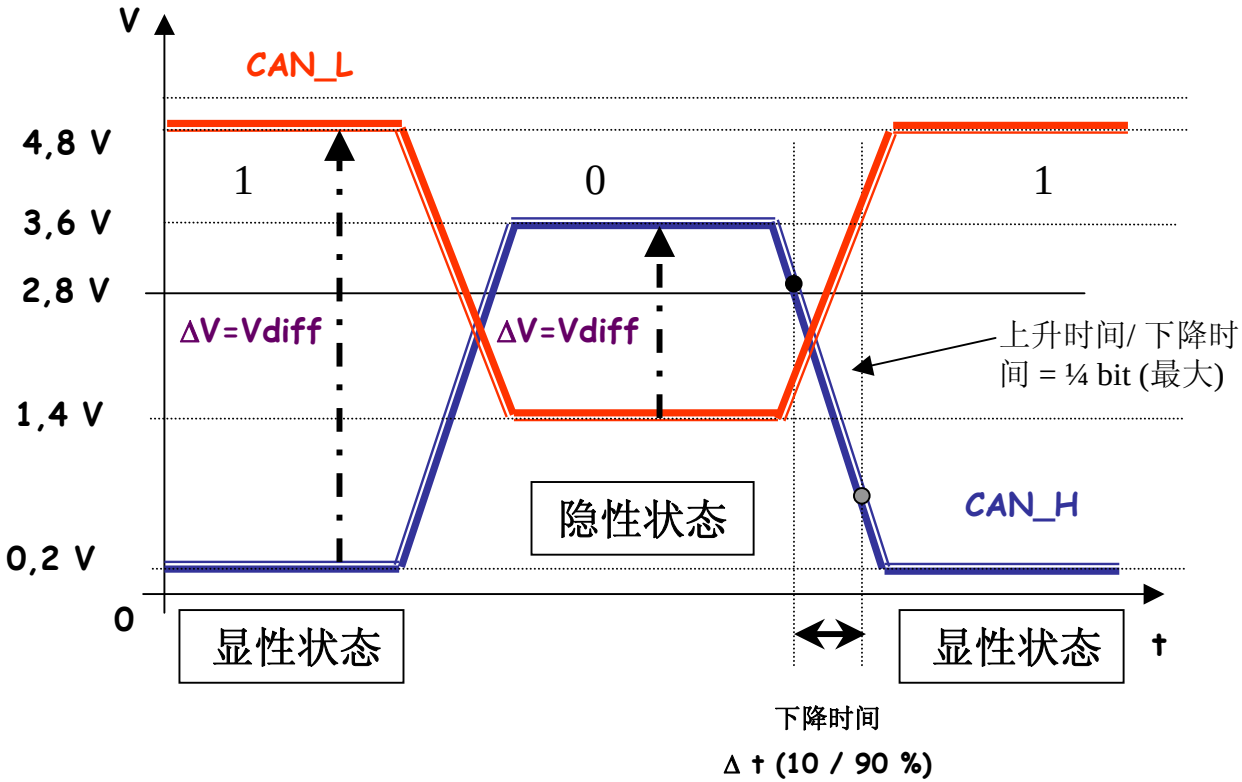

内部系统CAN 网
泊车辅助
收放机
空调
多功能屏幕
CAN舒适网
双传感器
组合仪表
前车门模块
ABS
ESP
BSI
自动变速箱
CAN车身网
方向盘转角传感器
发动机舱控制盒
报警
发动机电脑
COM2003
安全气囊

CAN I-S CAN Car
1V/div
10 μs/div

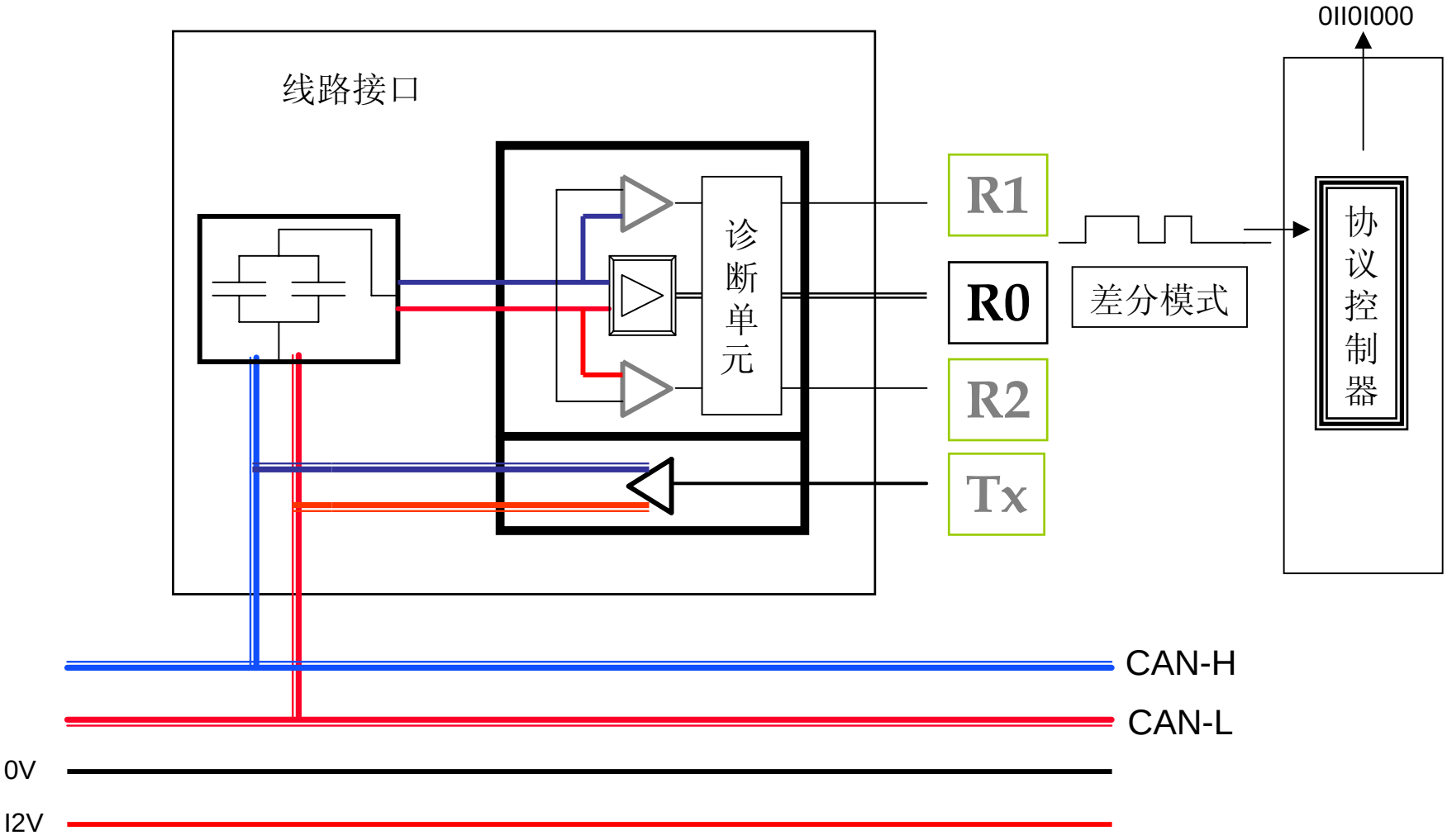




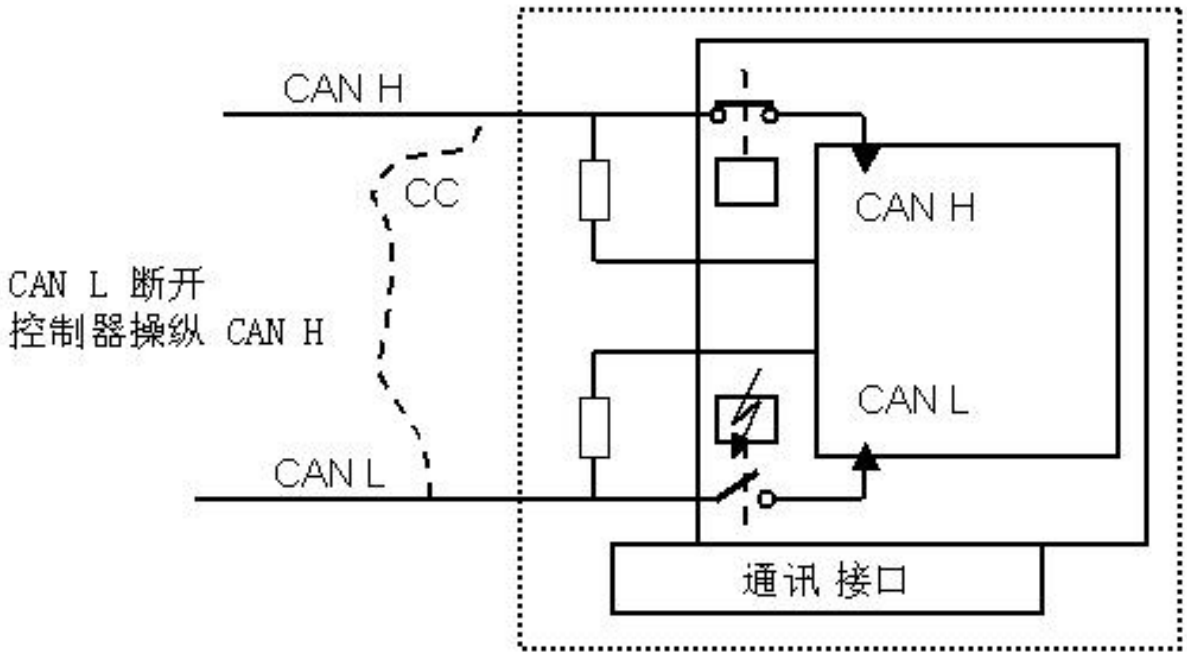
CAN LS :


V
CAN_L
4,8 V
3,6 V
2,8 V
1,4 V
0,2 V
0
1
0
1
ΔV=Vdiff
ΔV=Vdiff
上升时间/ 下降时间 = ¼ bit (最大)
隐性状态
CAN_H
显性状态
显性状态
t
下降时间
Δ t (10 / 90 %)

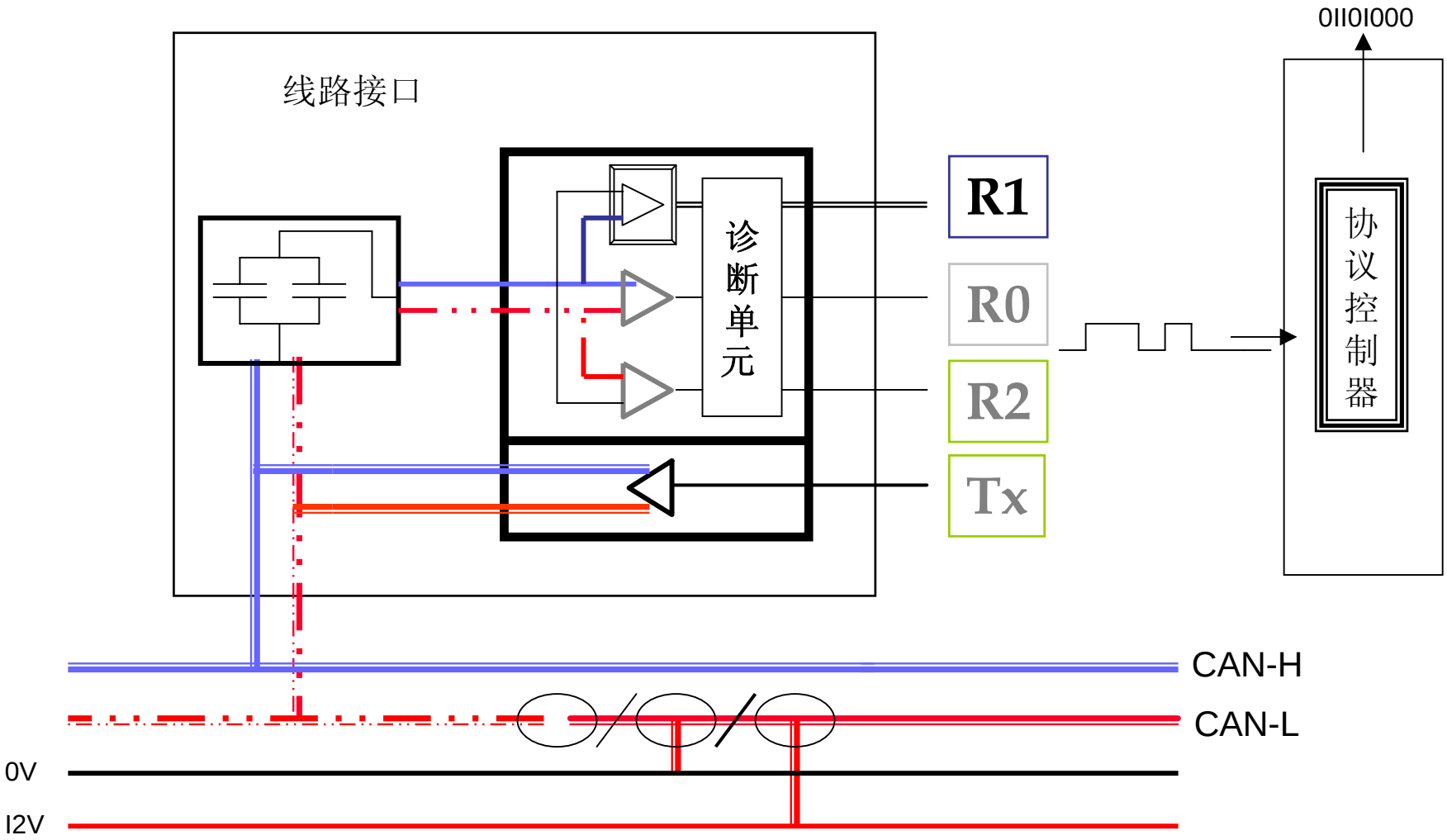
CAN LS

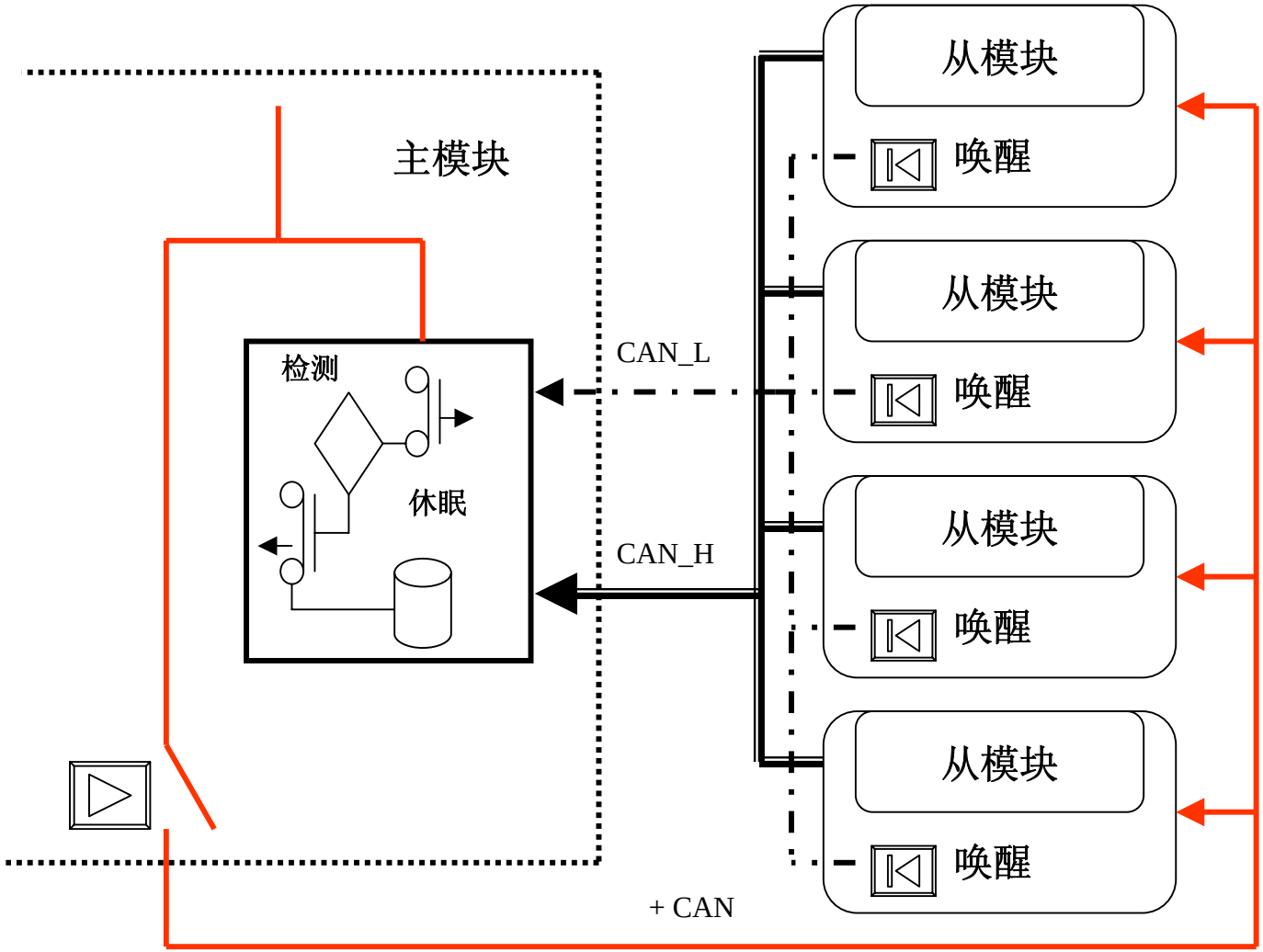


CAN H和CAN L之间短路 :
为了保持在一条单线上工作,
通讯接口与一条总线断开.

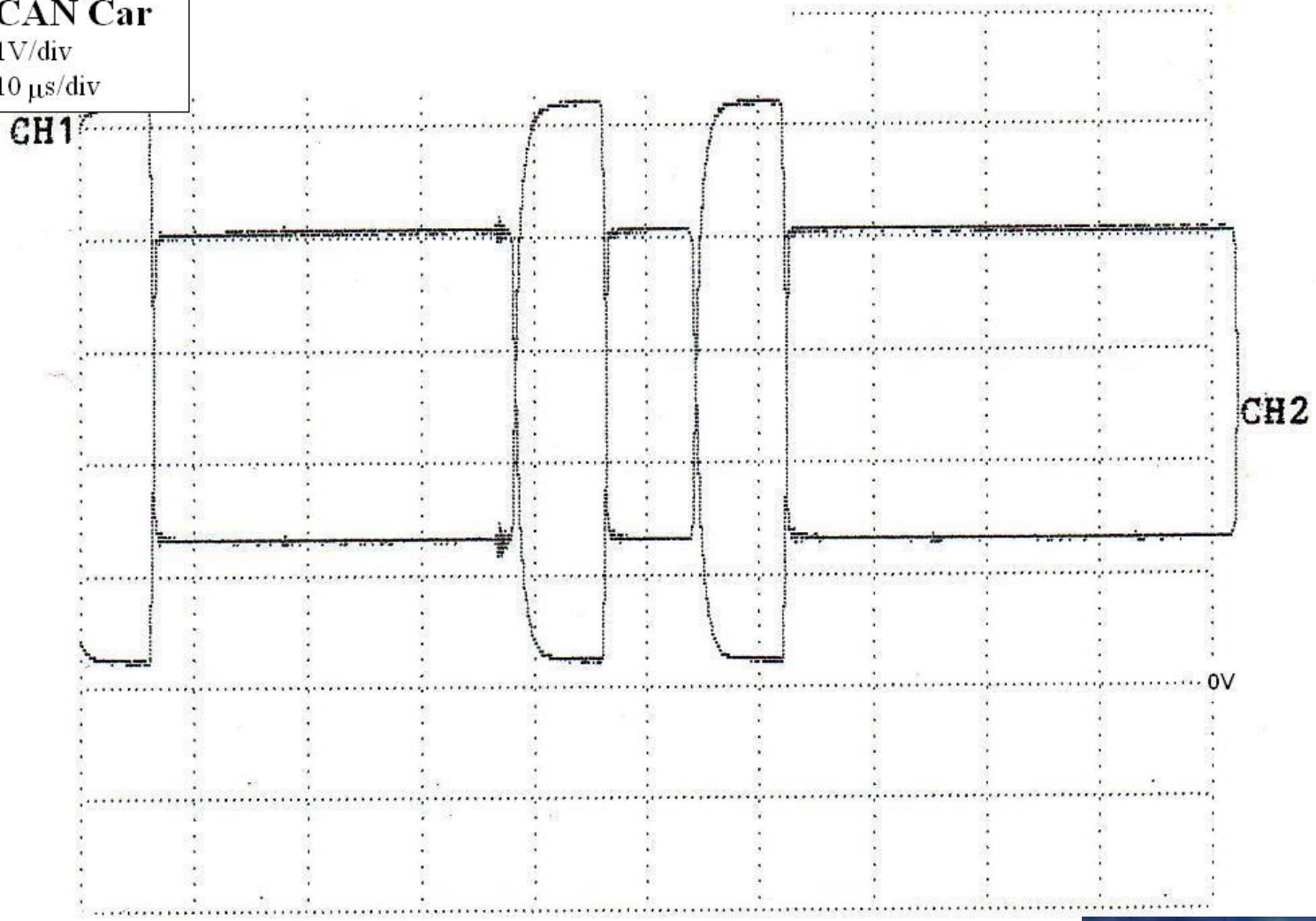


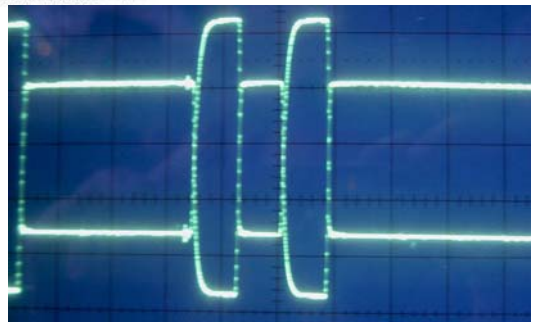
CAN LS



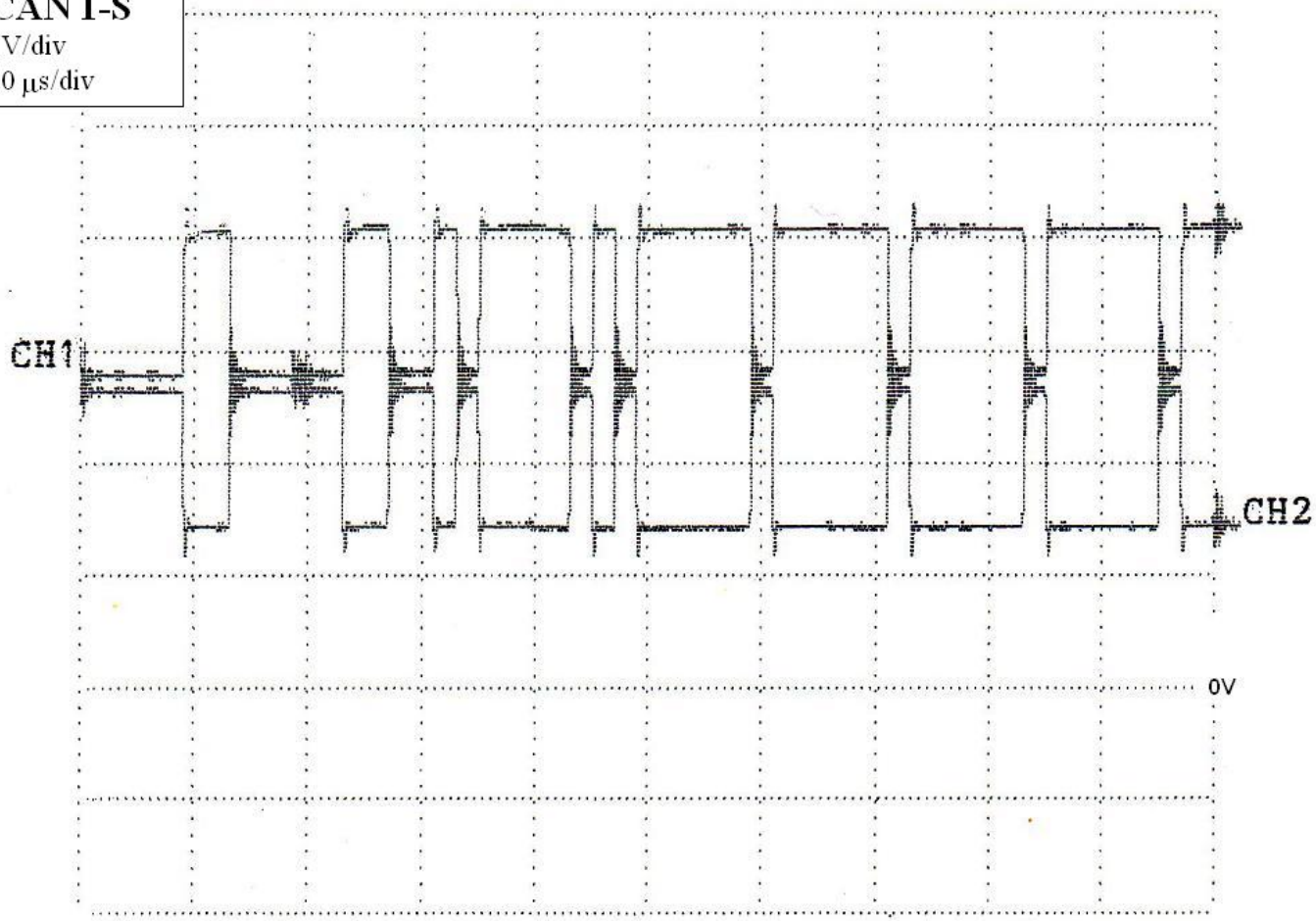

主模块
检测
休眠
CAN_L
CAN_H
+ CAN
从模块
唤醒
从模块
唤醒
从模块
唤醒
从模块
唤醒

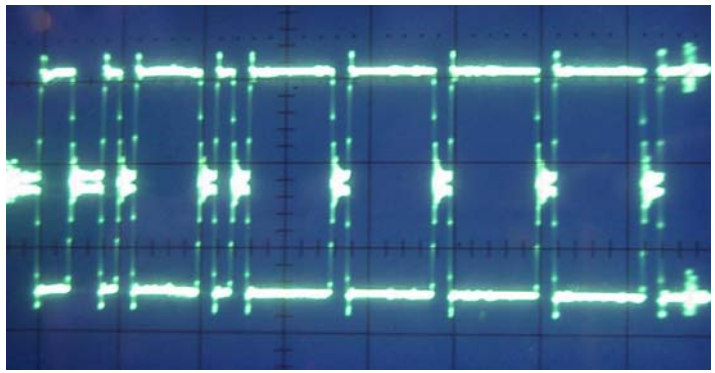
CAN Car
1V/div
10 μs/div





CAN I-S
1V/div
10 μs/div





CAN-H地线短路=>在CAN-L上进行降级运行

CAN-H正极短路=>在CAN-L上进行降级运行

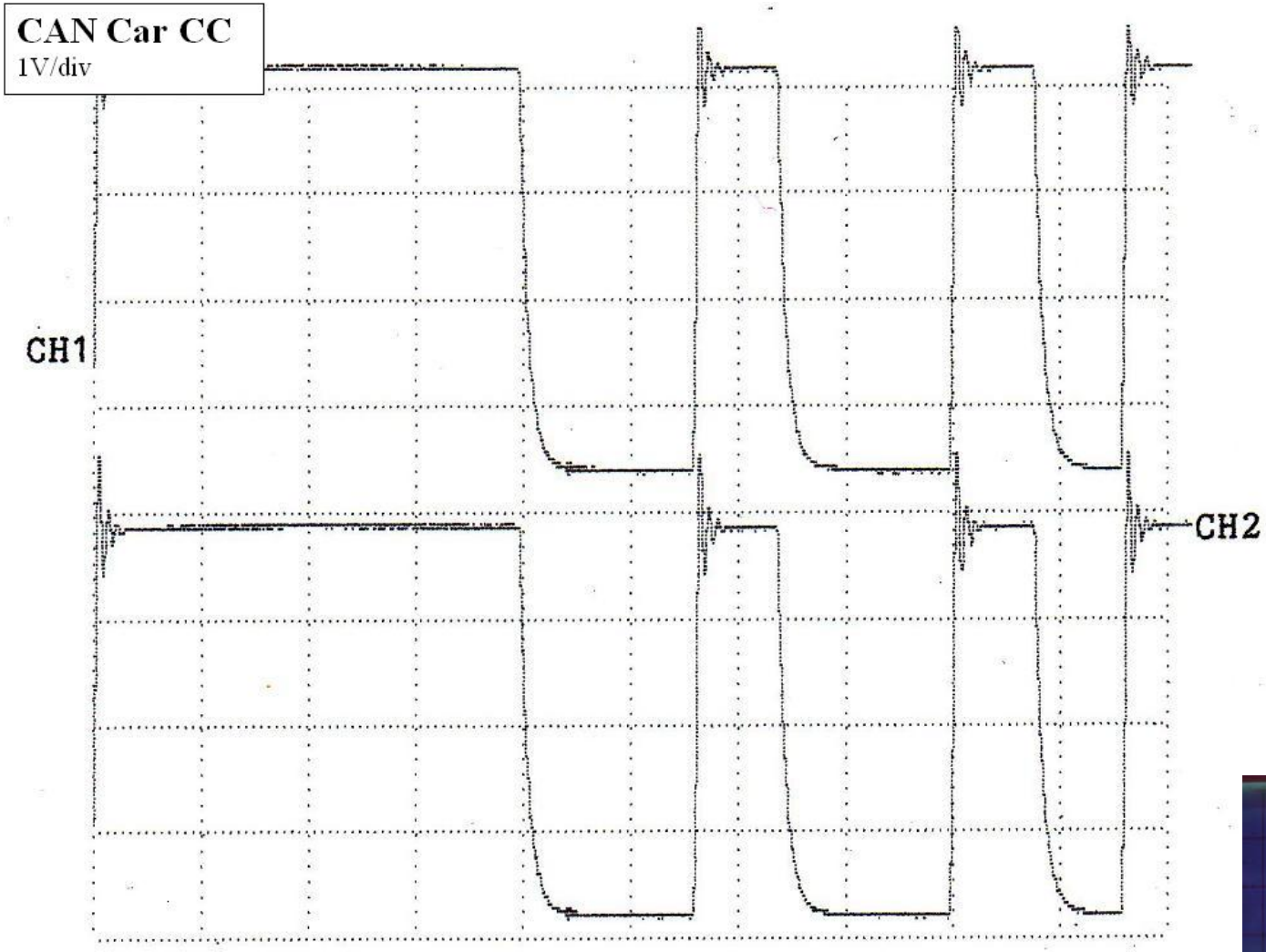
CAN-L地线短路=>在CAN-H上进行降级运行

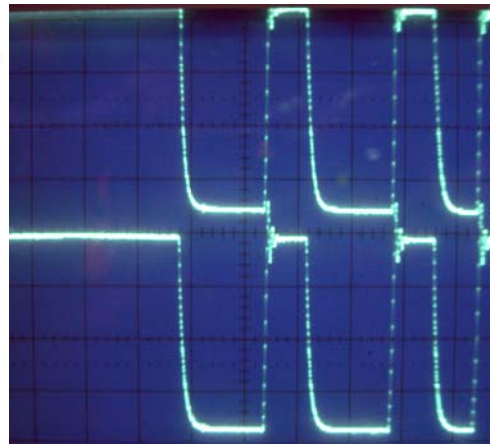
CAN-L正极短路=>在CAN-H上进行降级运行

CAN-H上呈开路=>在CAN-L上进行降级运行

CAN-H和CAN-L相互短路=>CAN-L自动切断，在CAN-H上进行降级运行

CAN Car CC
1V/div

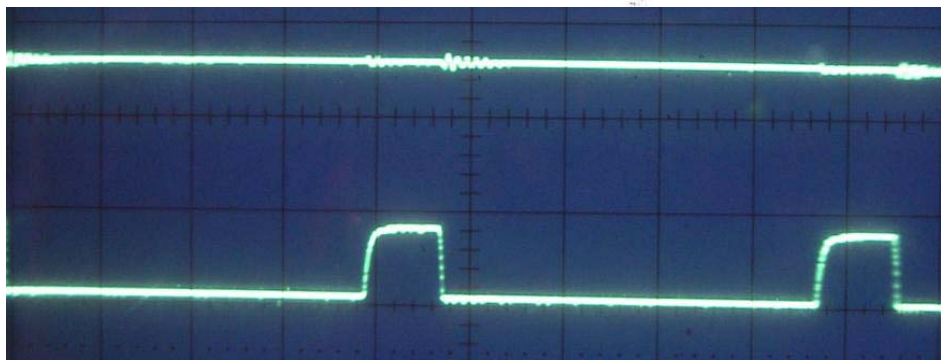


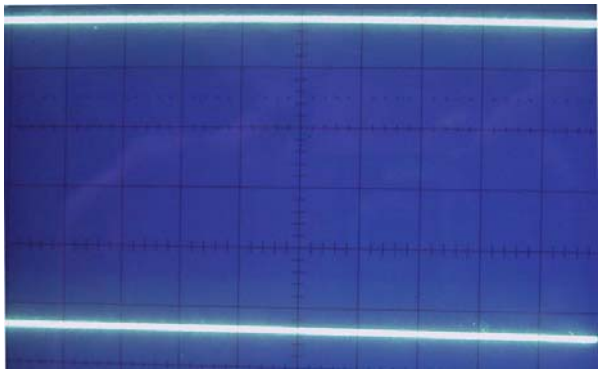


CAN Car CC masse
1V/div
10 µs/div

CH2

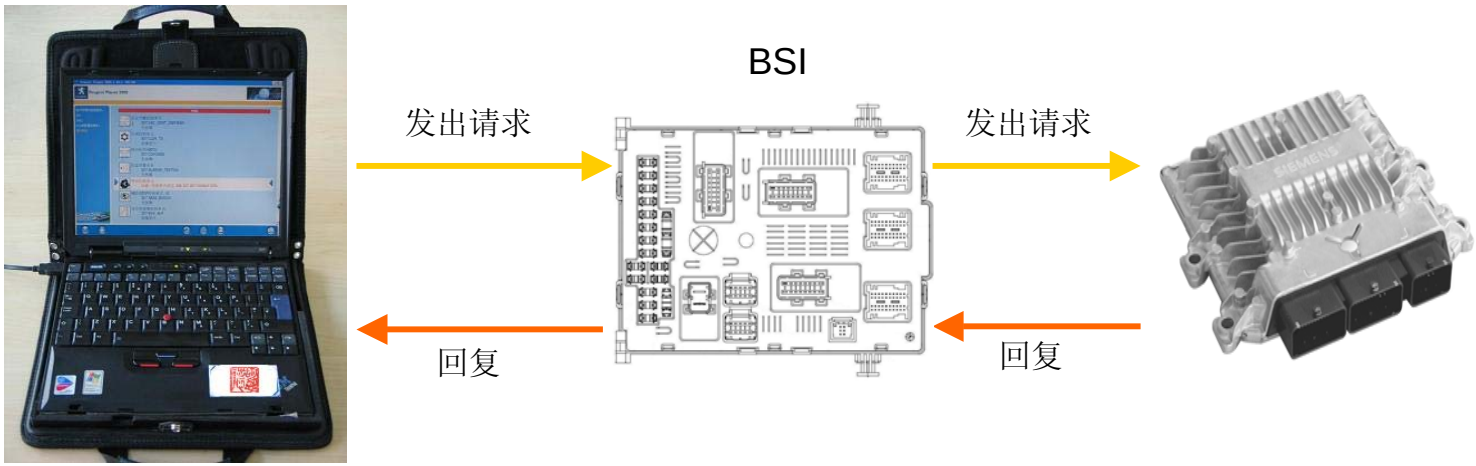
CH1

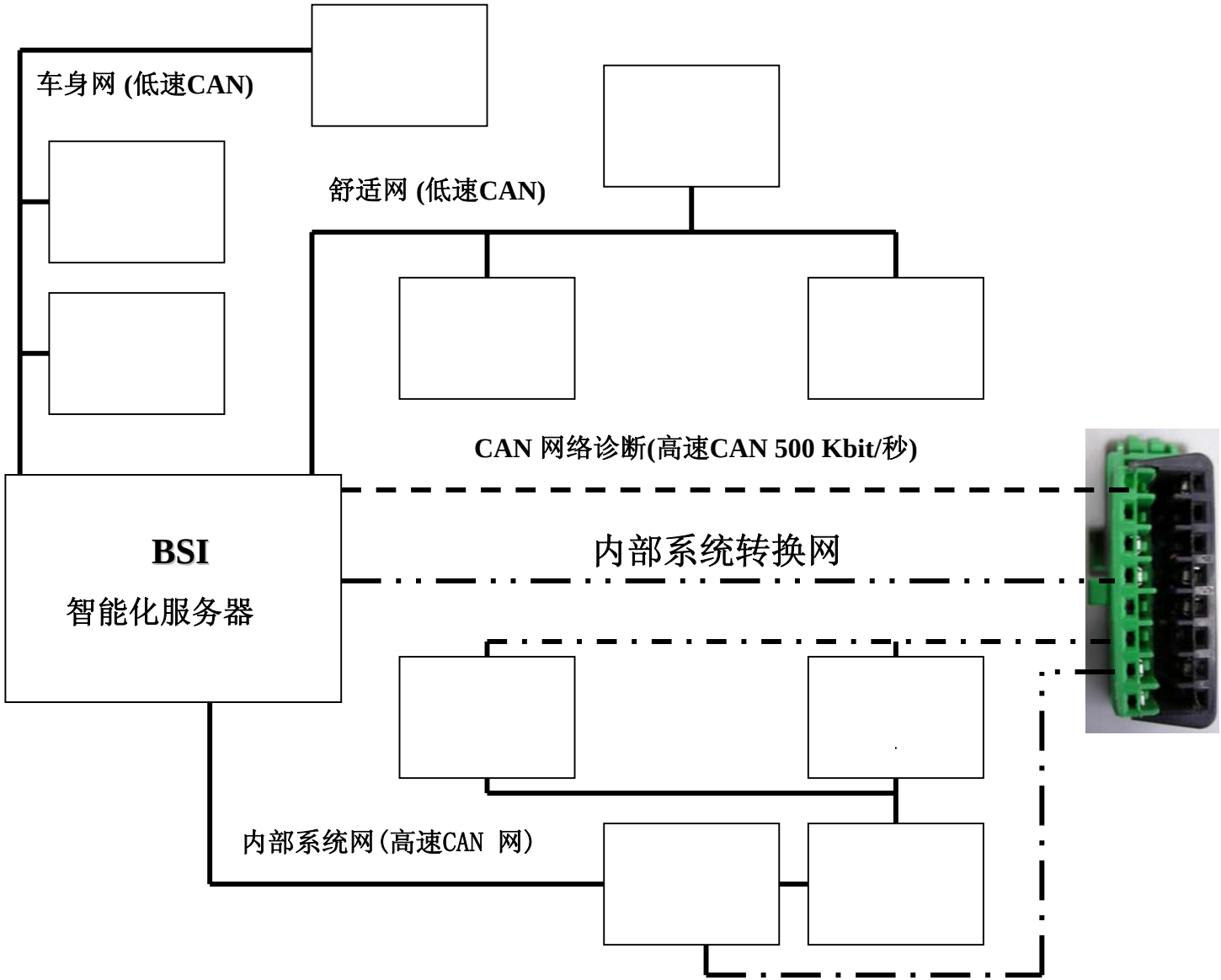




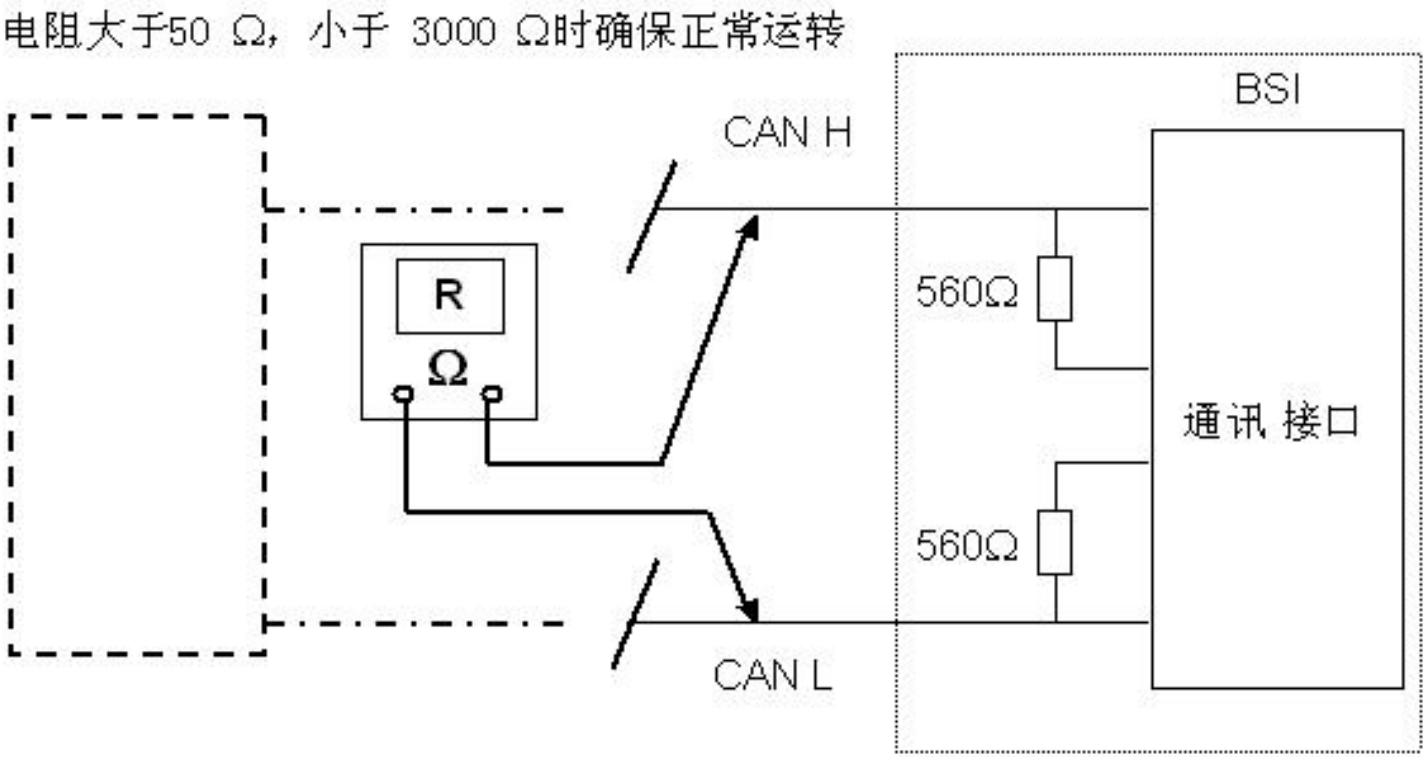
R
1/2
1
P
R
N
D
S
4
3
2
1
10
30
50
70
90
110
130
150
170
190
210
230
250
OFF
0009 :3
0
1
2
3
4
5
6
7
STOP
SERVICE

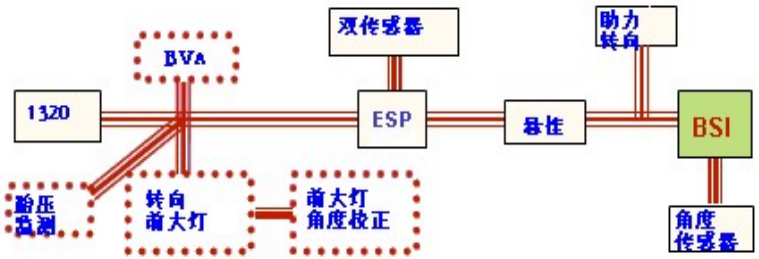
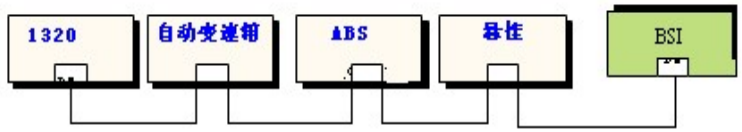
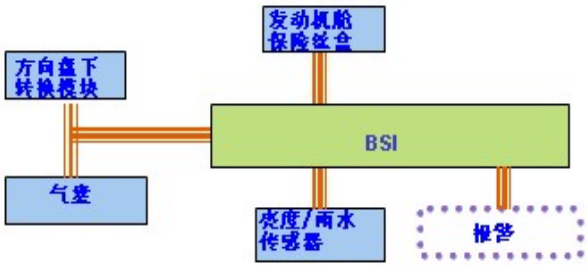
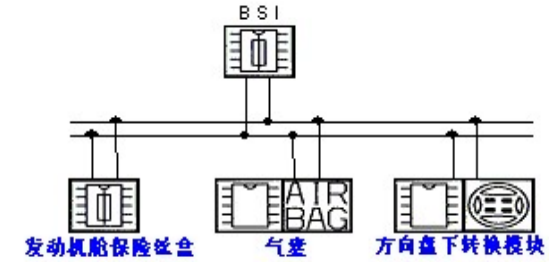
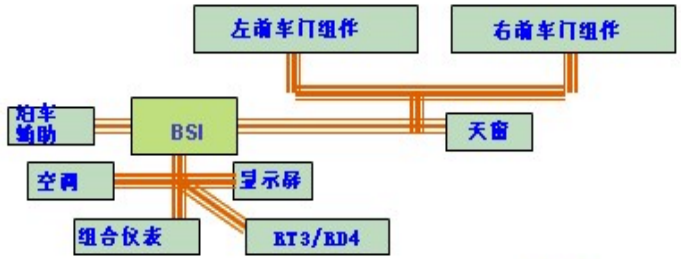
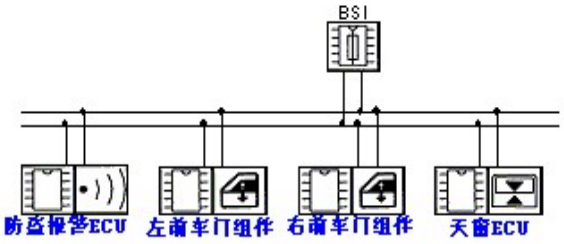
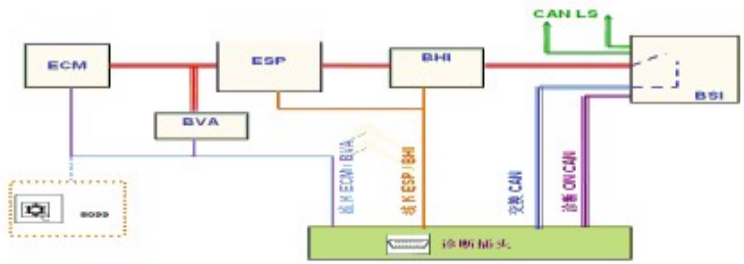
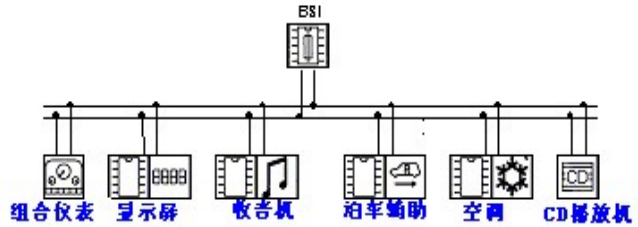
CAN诊断网络




车身网 (低速CAN)
舒适网 (低速CAN)
CAN 网络诊断(高速CAN 500 Kbit/秒)
BSI
智能化服务器
内部系统转换网
内部系统网(高速CAN 网)

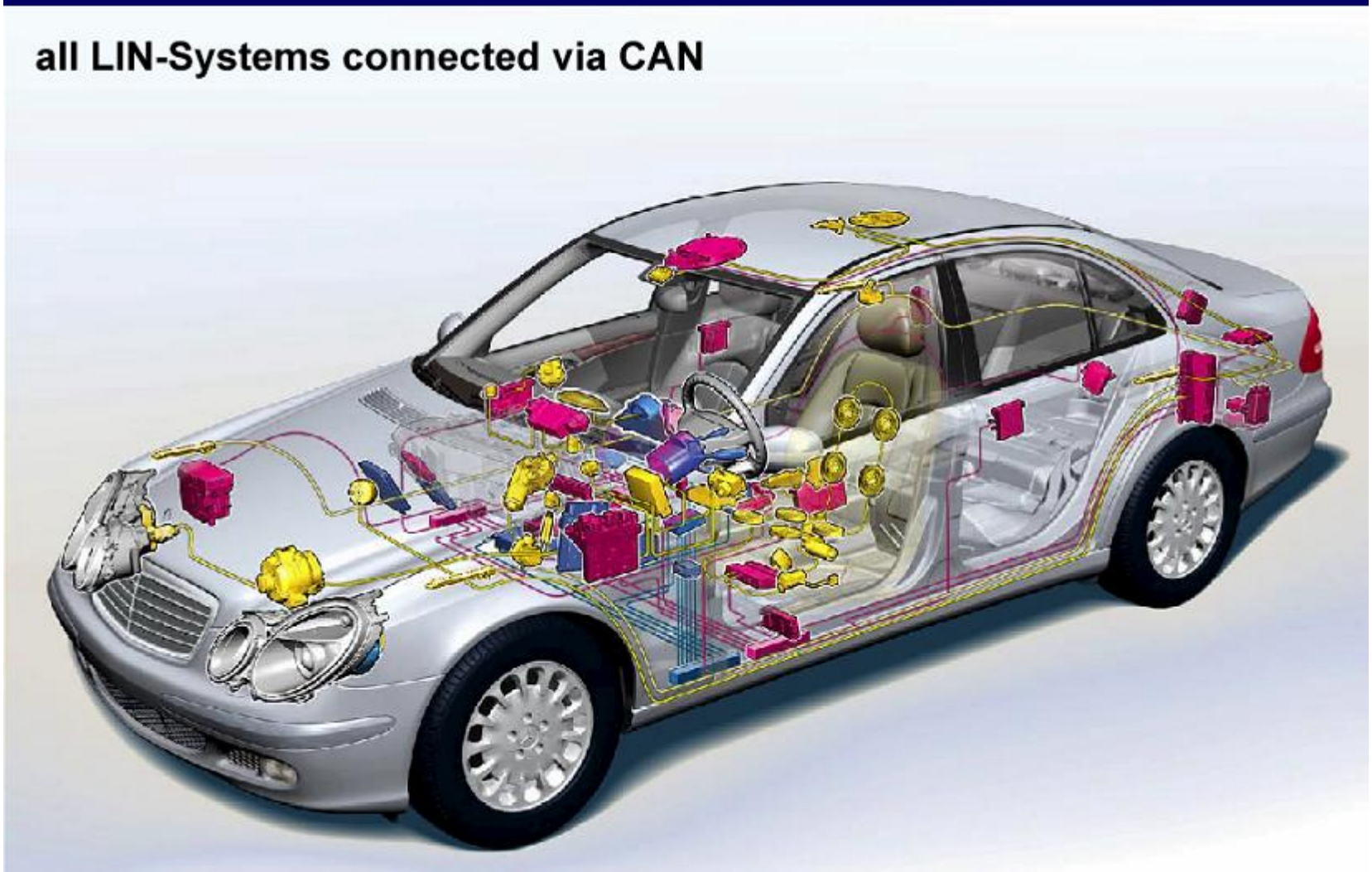
CAN LS

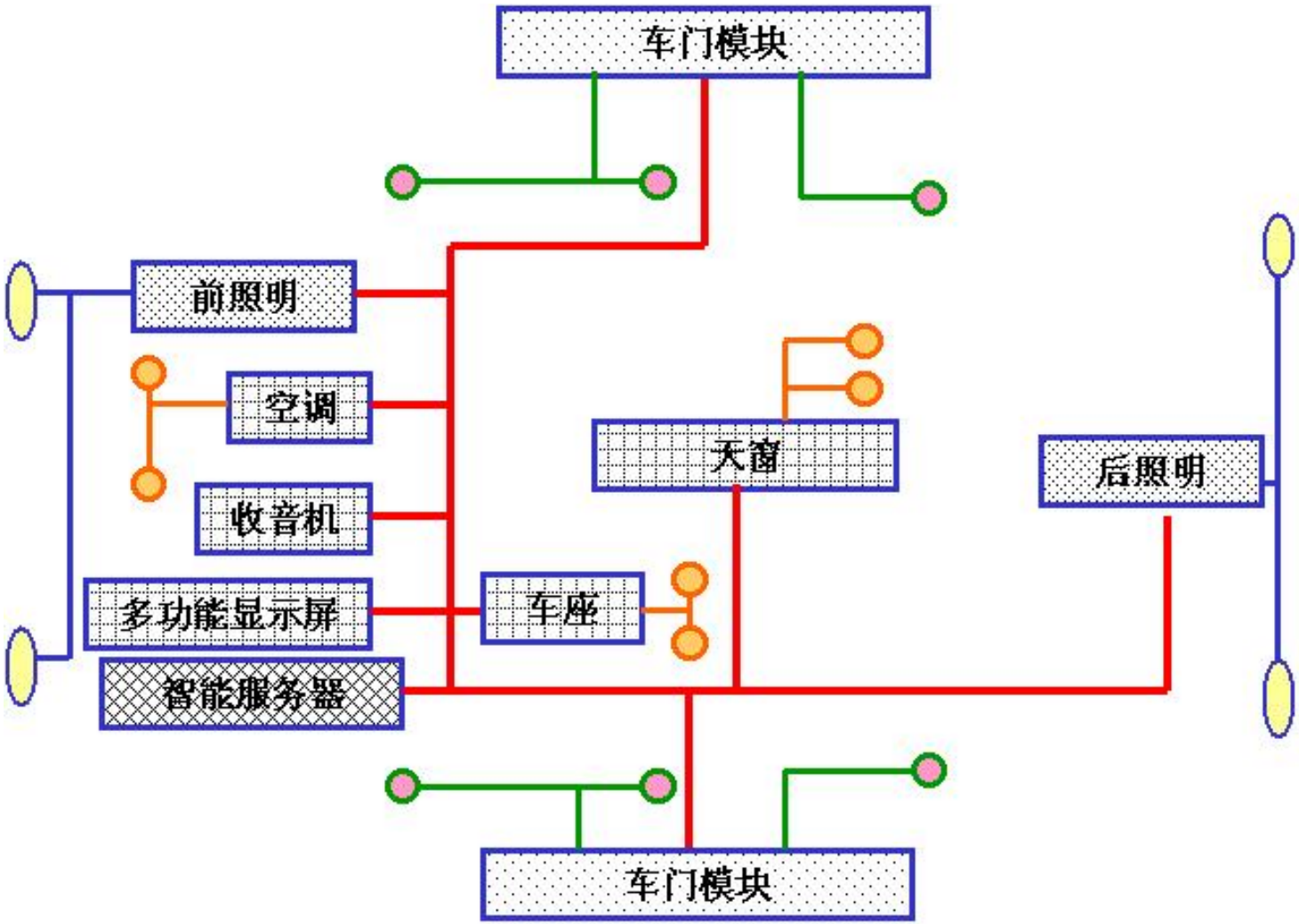


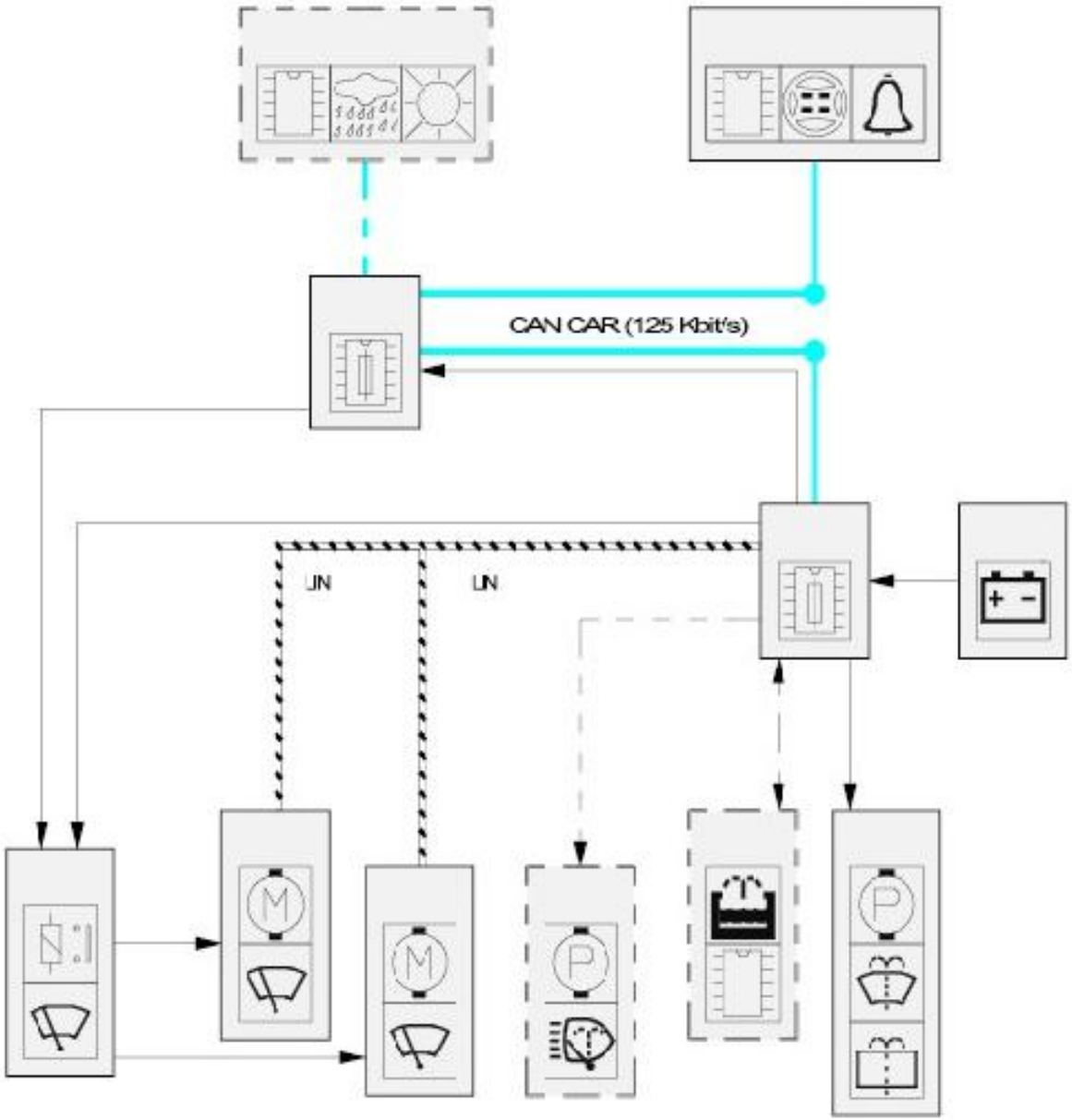
		全 CAN 网（CAN 低速-CAN 高速）			双 VAN-CAN 网
种类	速度	网络结构	种类	速度	网络结构
CAN 高速	500 kTS/s		CAN	250 kTS/s	
车身 CAN 低速	125 kTS/s		车身 VAN 1	62.5 kTS/s	
舒适 CAN 低速	传输速度为 125 kTS/s		车身 VAN 2	62.5 kTS/s	
诊断插头			舒适 VAN	125 kTS/s	

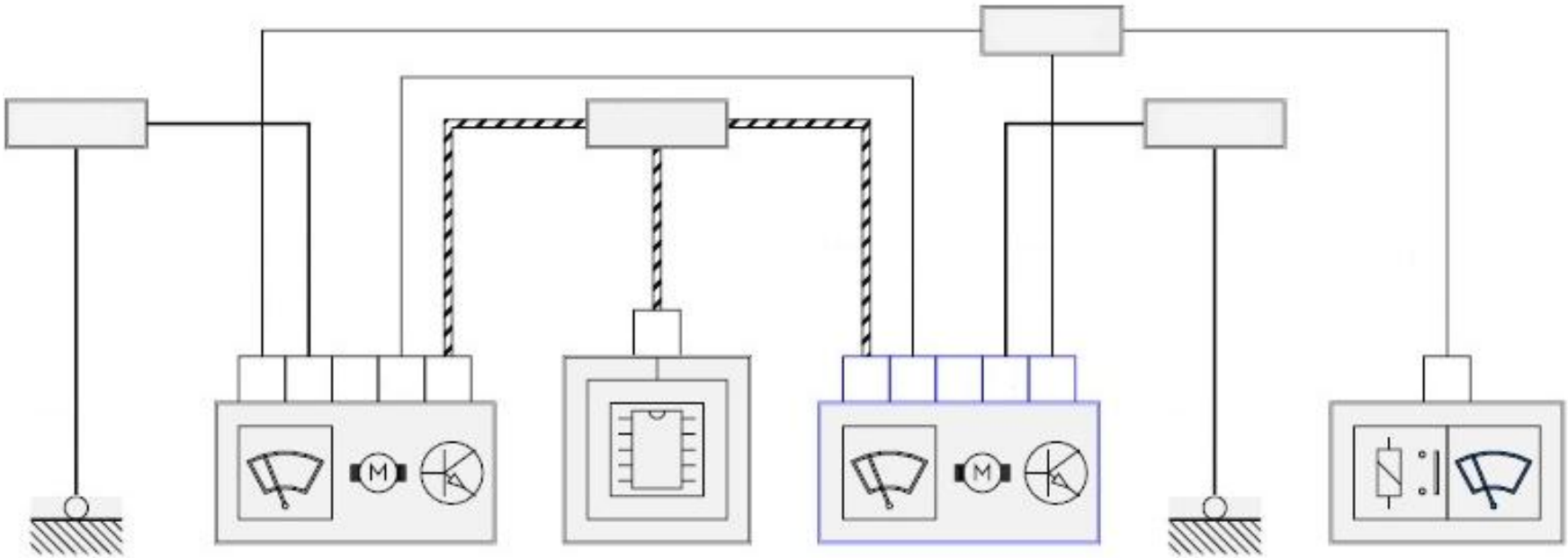
LIN协议

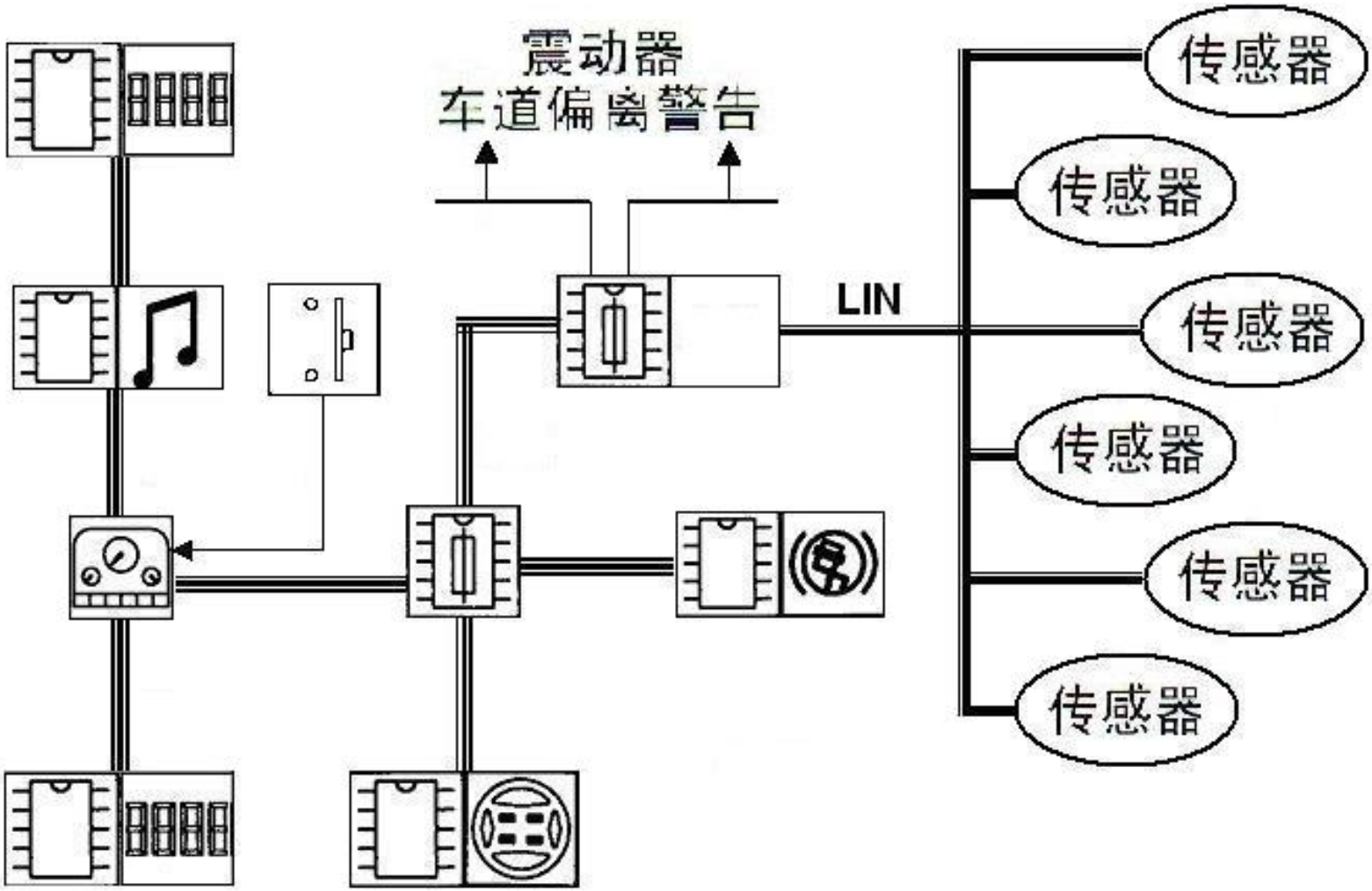
all LIN-Systems connected via CAN



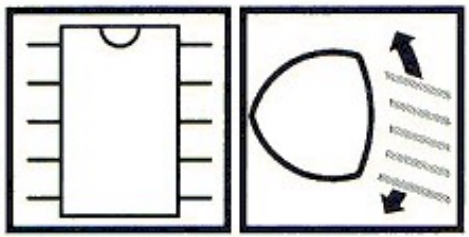

车门模块
前照明
空调
收音机
多功能显示屏
智能服务器
车座
天窗
后照明
车门模块


CAN CAR (125 Kbit's)
LIN
LIN

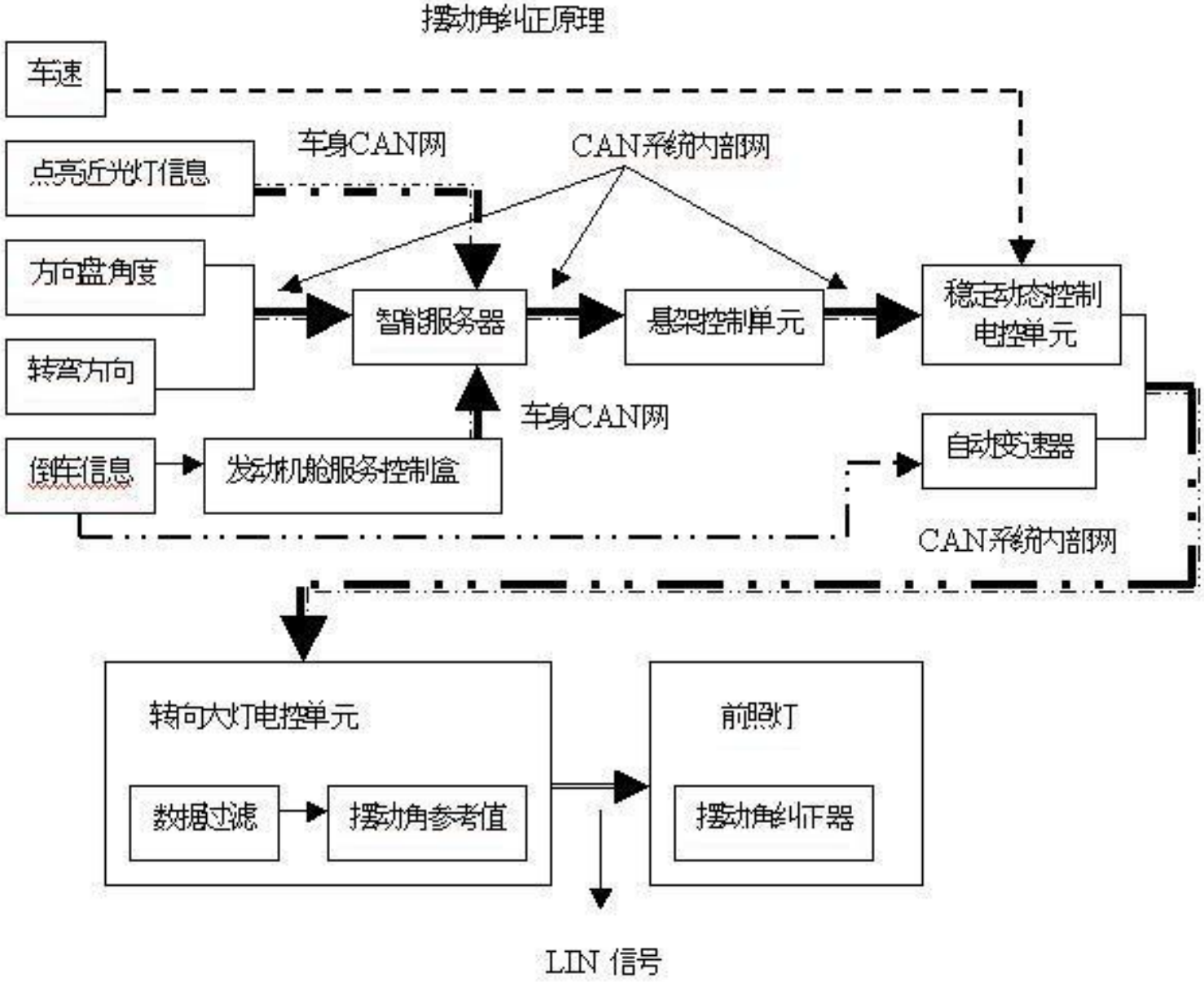

M
M

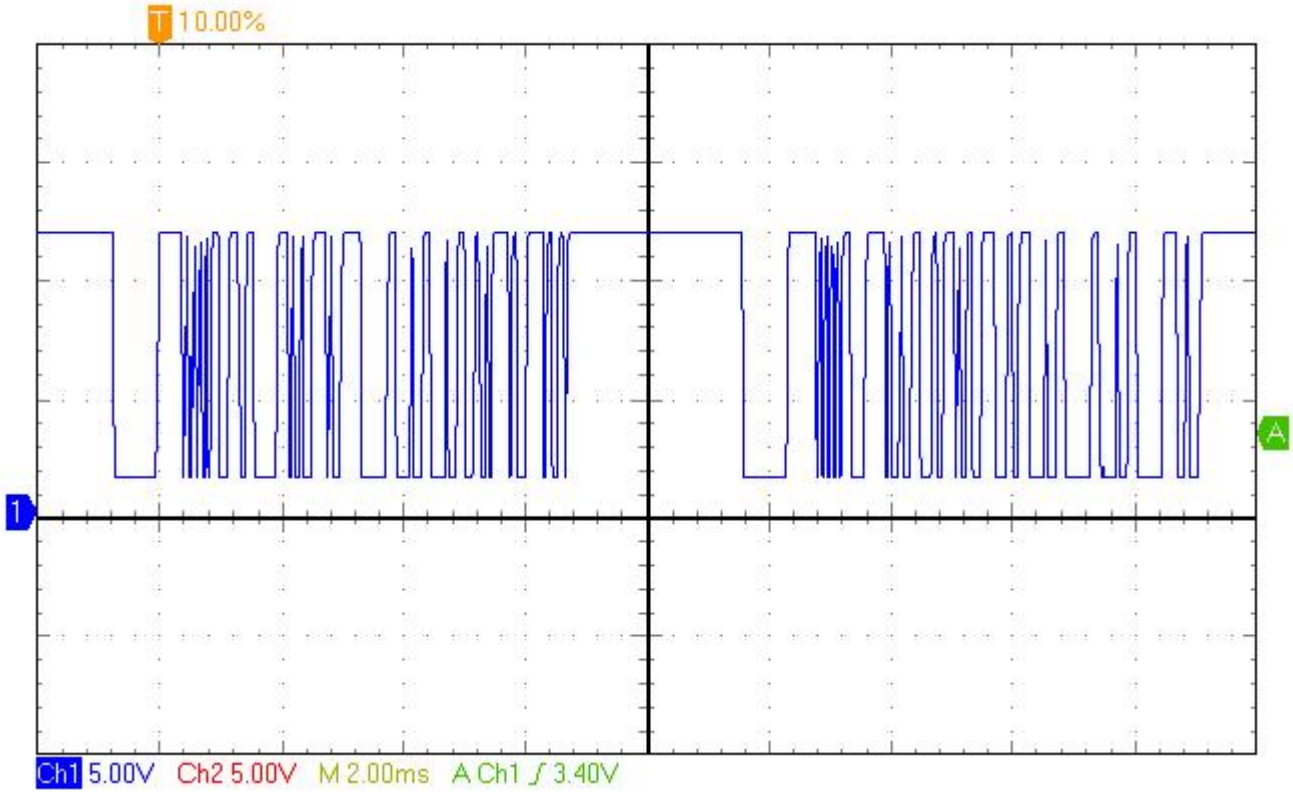

震动器
车道偏离警告
LIN
传感器
传感器
传感器
传感器
传感器
传感器

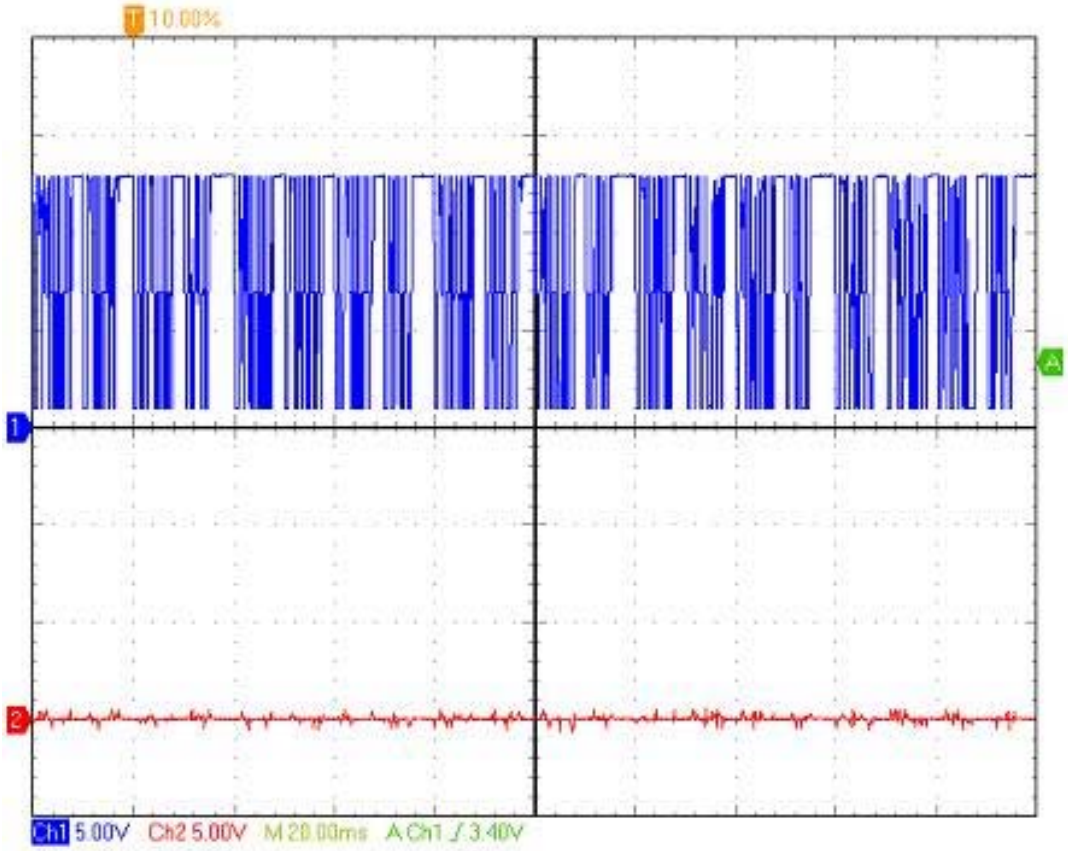
转向大灯



左大灯角度校正
右大灯角度校正


摆动角纠正原理
车速
车身CAN网
CAN系统内部网
点亮近光灯信息
方向盘角度
转弯方向
智能服务器
悬架控制单元
稳定动态控制
电控单元
车身CAN网
倒车信息
发动机舱服务控制盒
自动变速器
CAN系统内部网
转向大灯电控单元
数据过滤
摆动角参考值
前照灯
摆动角纠正器
LIN 信号


T 10.00%
A
1
Ch1 5.00V Ch2 5.00V M 2.00ms A Ch1 ∫ 3.40V


10.00%
Ch1 5.00V
Ch2 5.00V
M 20.00ms
A Ch1 ⁄ 3.40V