

TCAN1044-Q1 Spec from Datasheet

< Dominant output voltage > @ $50\ \Omega \leq R_L \leq 65\ \Omega$

CANH : 2.75V~4.5V

CANL : 0.5V~2.25V

< Recessive output voltage >

CANH,L : 2V~3V

< Differential output voltage normal mode Dominant >

CANH - CANL : 1.5V~3V @ $50\ \Omega \leq R_L \leq 65\ \Omega$



Let's assume below case for example

< Dominant output voltage > @ $50\ \Omega \leq R_L \leq 65\ \Omega$

CANH : 2.75V

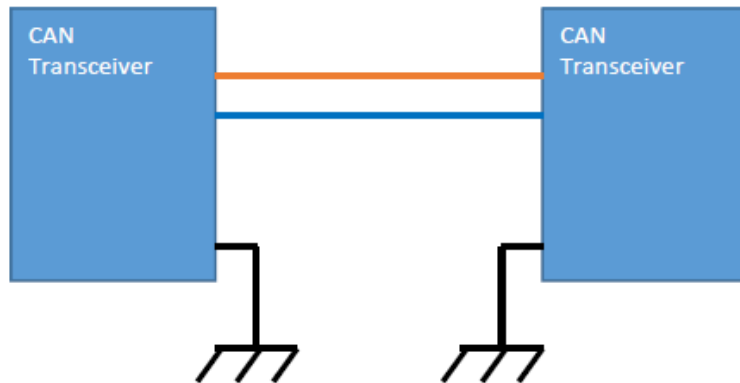
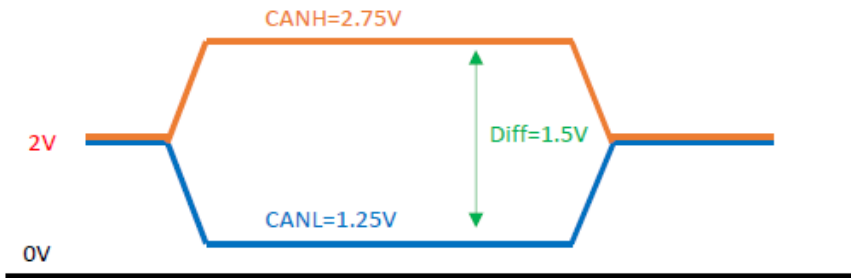
CANL : 1.25V

< Recessive output voltage >

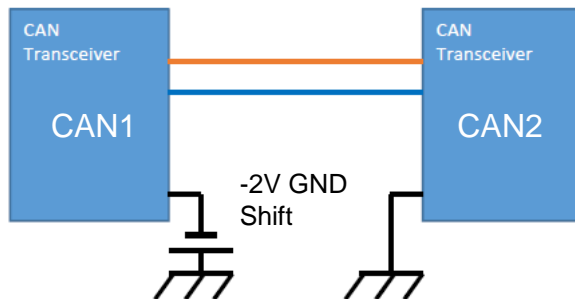
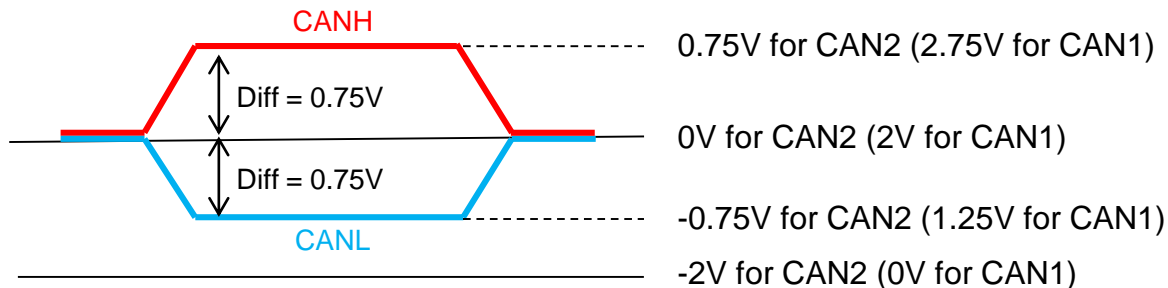
CANH,L : 2V

< Differential output voltage normal mode Dominant >

CANH - CANL : 1.5V @ $50\ \Omega \leq R_L \leq 65\ \Omega$



When -2V GND shift happens...



Normal comparator's signal input range is from V_- to V_+ roughly.
From CAN2 viewpoint, CANL can be read as -0.75V, and differential voltage can be read as 1.5V?
(Are there any chance that CAN2 interpret the CANL as 0V and CANH as 0.75V, and differential voltage for CAN2 viewpoint is 0.75V, and CAN2 cannot trigger low (dominant) at the RX?)