Test Procedure for the NCV7344A3V1GEVB

ON Semiconductor®

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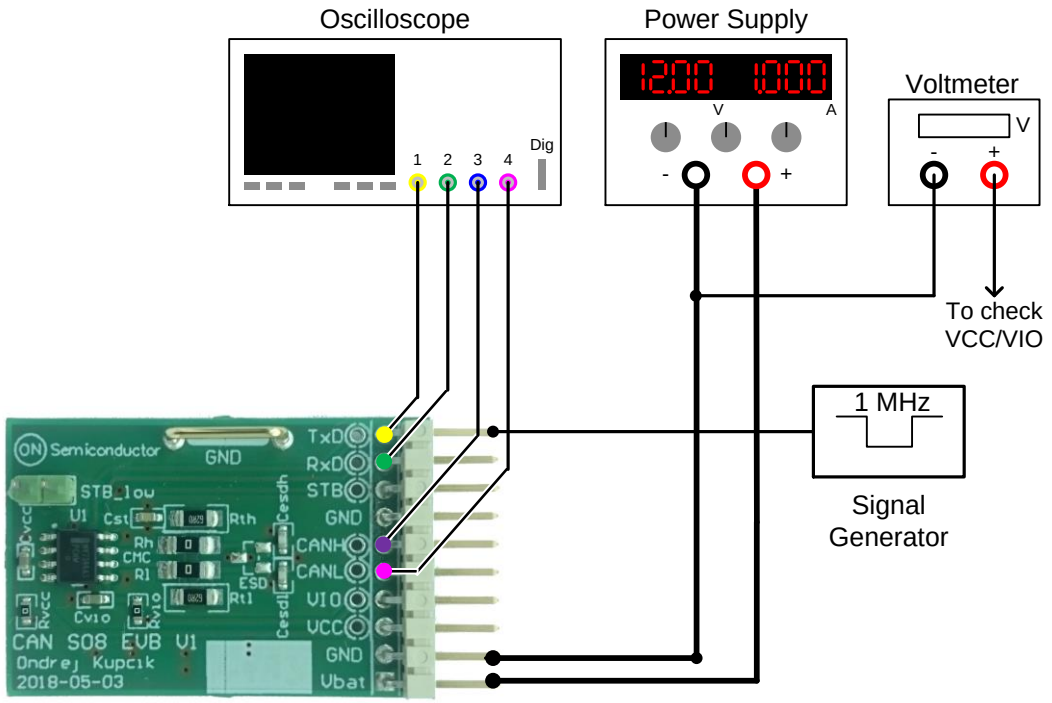

Figure 1: Test Setup Configuration

Required Equipment

- Oscilloscope
- Bench Power Supply
- Voltmeter
- Signal Generator
- CAN Evaluation Board

Test procedure Step 1 (Standby mode):

1. Connect the setup as shown above
2. Keep STB_low open
3. Check VCC, VIO
4. Check RxD, CANH, CANL
5. Check I_{Vbat}.

Table 1: Desired Results

VCC, VIO
RxD HIGH (or floating)
CANH OFF
CANL OFF
I_{Vbat} < 0.15 mA

Test procedure Step 2 (Normal mode, recessive):

1. Close (short) STB_low
2. Check I_{Vbat}.

Table 2: Desired Results

RxD HIGH
I_{Vbat} = < 2 mA – 12 mA >

Test procedure Step 3 (Normal mode, square-wave):

1. Apply Square-wave signal to TxD (0-3.3 V, 1 MHz)
2. Check AC characteristics of RxD, CANH, CANL

Table 3: Desired Results

RxD HIGH / LOW
CANH RECESSIVE / DOMINANT
CANL RECESSIVE / DOMINANT

DC Characteristics

	MIN	TYP	MAX
VCC	4.9 V	5.0 V	5.1 V
VIO	3.234 V	3.3 V	3. 366 V
RxD LOW		0 V	0.4 V
RxD HIGH	2 V	VIO	
CANH OFF			0.1 V
CANH OFF			0.1 V
CANH RECESSIVE	2 V	VCC/2	3 V
CANL RECESSIVE	2 V	VCC/2	3 V
CANH DOMINANT	2.75		VCC
CANL DOMINANT	0		2.25 V

AC Characteristics