

## AX71552JAZ Evaluation Board User's Manual



ON Semiconductor®

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### Function

- 9-ch 出力LED Driver
- 3色LEDに対応 (RLED:3ch GLED:3ch BLED:3ch)

### Output Current Setting

- LEDドライバ出力は定電流出力とオープンドレイン出力を切り替えられます
- 輝度調整機能としてPWM輝度調整機能を内蔵:  
PWM = 0%~99.6% 8 bit (256 step)
- 9ch 独立でPWM輝度調整が可能

OUTSCT PINの設定

## EVAL BOARD USER'S MANUAL

表 1.

OUTSCT Terminal Setting	RLED1	RLED2	RLED3
	GLED1	GLED2	GLED3
	BLED1	BLED2	BLED3
L	定電流出力		
M	定電流出力		オープンドレイン出力
H	オープンドレイン出力		

### Output Current Value Control – 5 bit (32 Step)

定電流値はR, G, Bのグループ毎に可変できます

- 0.86 mA~31.24 mA
- Resistor 01h, 02h, 03h

### Interface

CTLSCT terminal設定.

表 2.

CTLSCT Terminal Setting	Serial I/F Mode		Maximum SCLK
L	3-wire SPI	SCLK SDATA SDEN	5 MHz
H	2-wire SPI	SCLK SDATA	5 MHz

Block Diagram

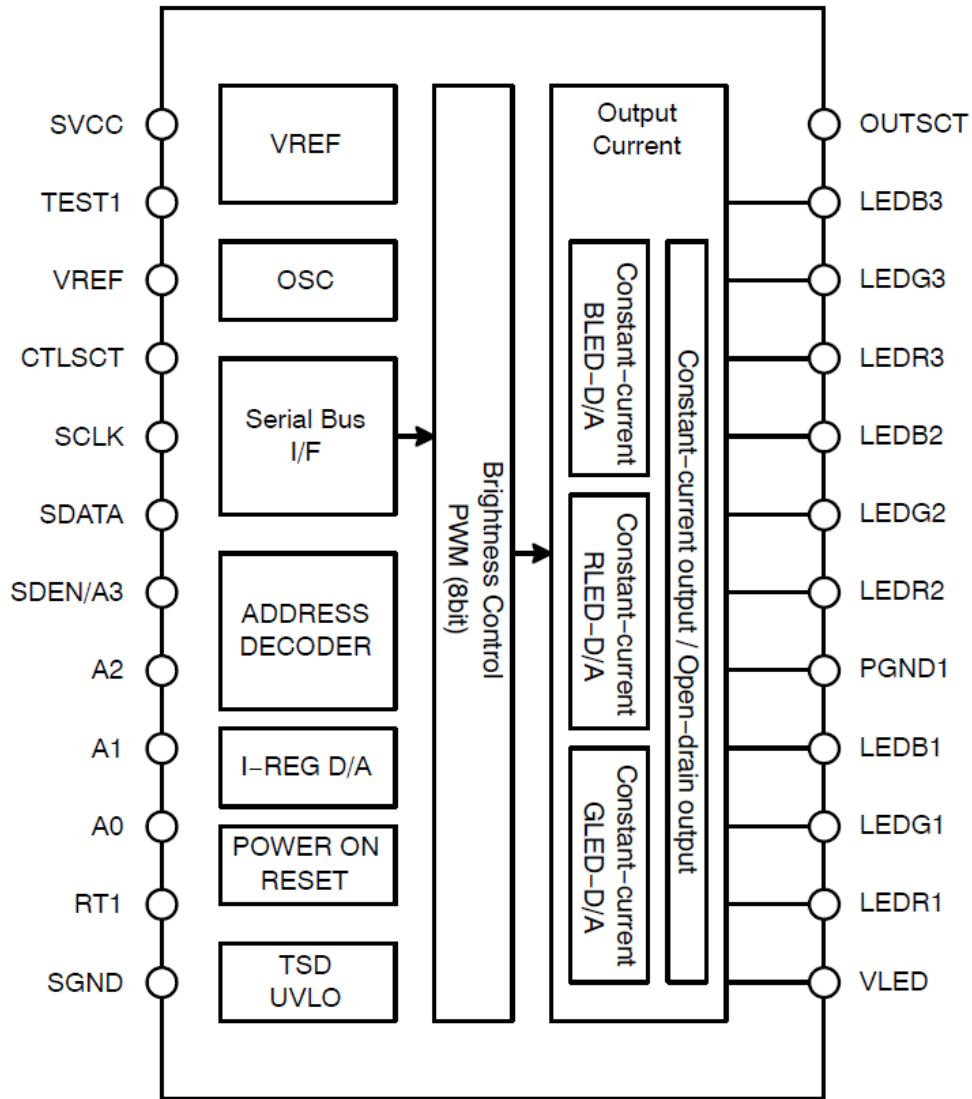


図 1. Block Diagram

SVCC Input Power Supply

SVCC は 3.1 V~12.8 V で使用可能です。

AX71552JAZ は 5 V 出力の LDO を内蔵しています。  
出力ピンは VREF です

SVCC 電圧が 5 V 以下になると VREF ピン内部 MOS トランジスタの ON 抵抗の影響で VREF 電圧が下がります。

対策として、SVCC が 5.5 V 以下で使用する場合は SVCC と VREF はショートしてください。

Number of Connections on the Same Bus Line

A0/A1/A2/A3 (SDEN) pins の設定を変更すると、スレーブアドレスを変更できますその個数は下記になります

表 3.

3-wire SPI	Up to 27 bus settings are possible
2-wire SPI	Up to 81 bus settings are possible

MAX Current Setting at Constant Current Output

定電流出力モード時 LED ドライバー 最大電流値 =  

$$(RT \text{ 端子電圧}(1.22 \text{ V})) / (RT \text{ 端子接続抵抗値}(\Omega)) \times 512$$

例

RT 接続抵抗値 = 20 kΩ

最大電流値 = 31.24 mA

# AX71552GEVB

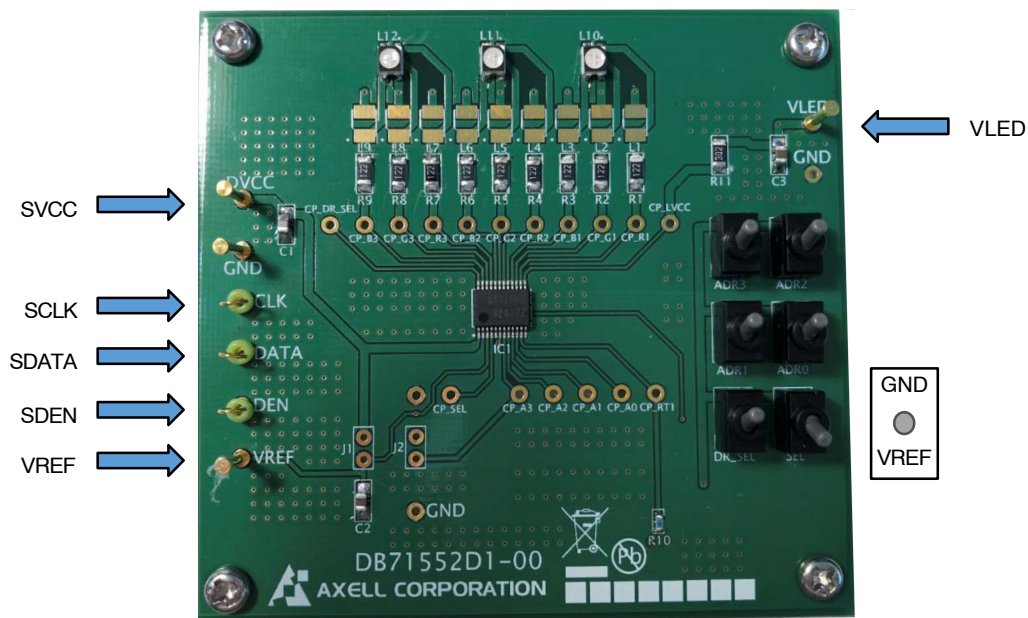


図 2.

表 4.

PIN Name	Description
SVCC	電源ピン 3.1 V~12.8 V
VLED	出力保護端子 3.1 V~42 V LED端子に印可される可能性のある最大の電圧を入力してください $VLED \geq LEDR1, R2, R3, G1, G2, G3, B1, B2, B3$
SCLK	シリアルクロック信号入力ピン
SDATA	シリアルデータ信号入力ピン
SDEN	シリアルイネーブル信号入力ピン
VREF	LDO 5 V 出力ピン SVCC電圧が3.1 V~5.5 Vの時は、SVCCとVREFをショートしてください

表 5. SW 設定

SW NAME	Description	VREF	CENTER	GND
DR_SEL	LED ドライバ出力形態設定	オープンドレイン出力	MIX	定電流出力
SEL	シリアル入力モード設定	2-wire SPI	-	3-wire SPI
A0~A3	スレーブアドレス設定	HIGH LEVEL	MID LEVEL	LOW LEVEL

\*A3は2-wireSPIの時使用可能です  
使用時はジャンパーJ2をショートして下さい

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