

GENERAL DESCRIPTION

The SGM4556YXET is a 2-bit, non-inverting, bidirectional voltage-level translator which features two independent configurable power-supply lines. The A and B ports track the V_{CCA} supply and V_{CCB} supply respectively. The supply voltage range is 1.2V to 5.0V for A ports and 1.65V to 5.5V for B ports. The device provides a bidirectional translation function among the different voltage nodes (including 1.2V, 1.5V, 1.8V, 2.5V, 3.3V and 5V).

The SGM4556YXET has an output enable (OE) function, which controls the outputs states. When OE goes low, all outputs enter into the high-impedance state. When V_{CCA} is powered, OE has an internal pull-down current source. The OE should be connected to GND via a pull-down resistor, and the minimum resistor value is depended on the current source capability of the driver.

The SGM4556YXET is available in a Green XTDFN-1.35×1-8L package. It operates over an ambient temperature range of -40°C to +85°C.

FEATURES

- **Power Supply Voltage Ranges ($V_{CCA} \leq V_{CCB}$)**
 - ♦ **A Ports: 1.2V to 5.0V**
 - ♦ **B Ports: 1.65V to 5.5V**
- **Support V_{CCA} or V_{CCB} Isolation**
 - ♦ **When V_{CCA} or V_{CCB} is Low, Device Enters Power-Down Mode**
- **OE Input Circuit Referenced to V_{CCA}**
- **Support Partial-Power-Down Function**
- **Support Push-Pull Output**
- **Low Power Consumption**
- **-40°C to +85°C Operating Temperature Range**
- **Available in a Green XTDFN-1.35×1-8L Package**

APPLICATIONS

Universal Asynchronous Receiver/Transmitter (UART)
General Purpose I/O (GPIO)

TYPICAL APPLICATION

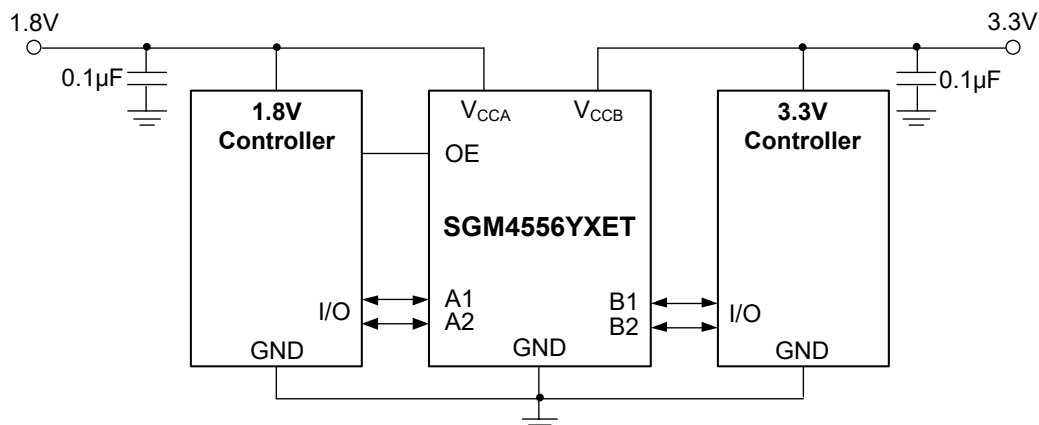
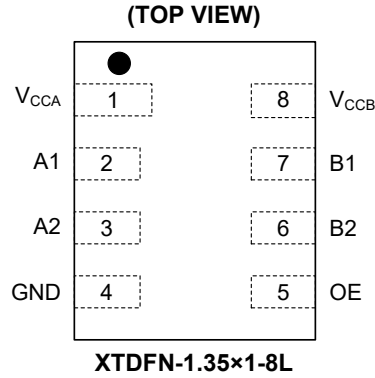


Figure 1. Typical Application Circuit

PIN CONFIGURATION

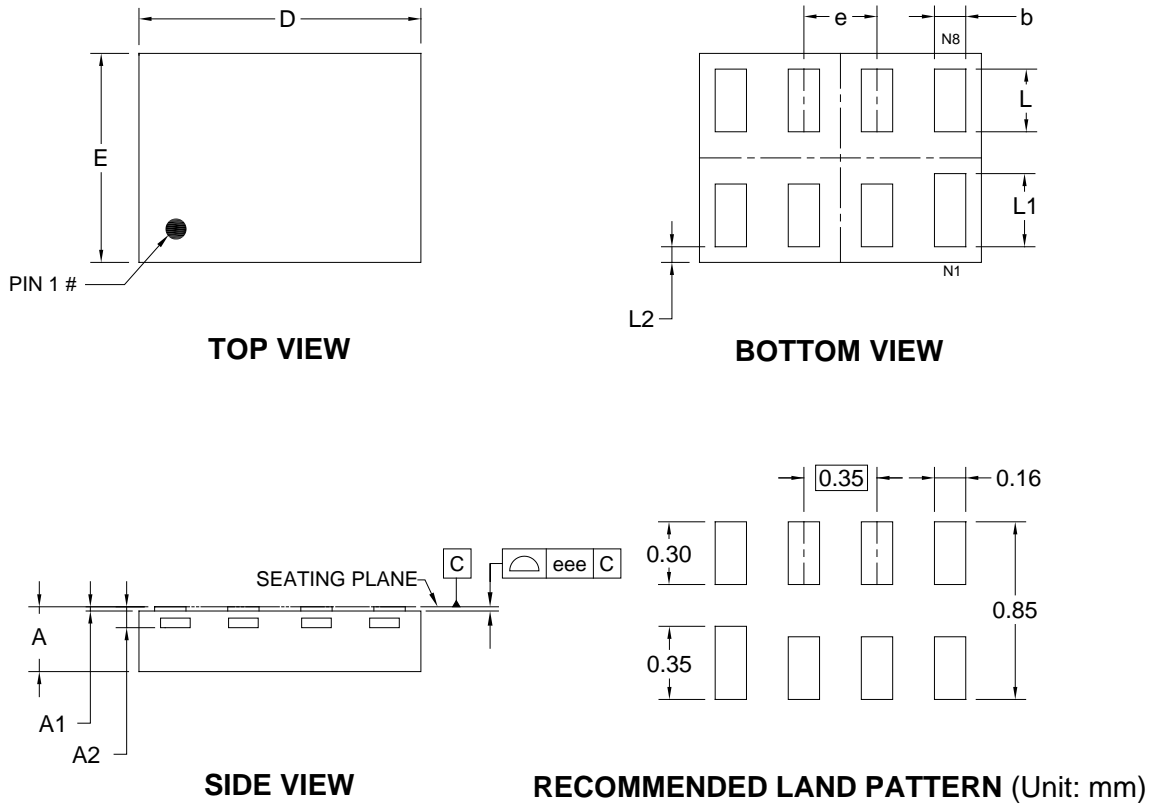


PIN DESCRIPTION

PIN	NAME	FUNCTION
1	V _{CCA}	Supply Voltage on A Ports. It can be operated from 1.2V to 5.0V, and V _{CCA} is always ≤ V _{CCB} .
2	A1	Channel 1 Input/Output A. It tracks the V _{CCA} supply.
3	A2	Channel 2 Input/Output A. It tracks the V _{CCA} supply.
4	GND	Ground.
5	OE	Output Enable Control Pin. Active high. When OE goes low, all outputs enter into the high-impedance state. It tracks the V _{CCA} supply.
6	B2	Channel 2 Input/Output B. It tracks the V _{CCB} supply.
7	B1	Channel 1 Input/Output B. It tracks the V _{CCB} supply.
8	V _{CCB}	Supply Voltage on B Ports. It can be operated from 1.65V to 5.5V.

PACKAGE OUTLINE DIMENSIONS

XTDFN-1.35x1-8L



Symbol	Dimensions In Millimeters		
	MIN	MOD	MAX
A	-	0.310	0.330
A1	0.000	-	0.050
A2	0.100 REF		
D	1.250	1.350	1.450
E	0.900	1.000	1.100
b	0.110	0.160	0.210
e	0.350 BSC		
L	0.250	0.300	0.350
L1	0.300	0.350	0.400
L2	0.075 REF		
eee	-	0.050	-

NOTE: This drawing is subject to change without notice.

PACKAGE INFORMATION

TAPE AND REEL INFORMATION

REEL DIMENSIONS



TAPE DIMENSIONS



NOTE: The picture is only for reference. Please make the object as the standard.

KEY PARAMETER LIST OF TAPE AND REEL

Package Type	Reel Diameter	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P0 (mm)	P1 (mm)	P2 (mm)	W (mm)	Pin1 Quadrant
XTDFN-1.35×1-8L	7"	9.5	1.21	1.51	0.39	4.0	4.0	2.0	8.0	Q1

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PACKAGE INFORMATION

CARTON BOX DIMENSIONS



NOTE: The picture is only for reference. Please make the object as the standard.

KEY PARAMETER LIST OF CARTON BOX

Reel Type	Length (mm)	Width (mm)	Height (mm)	Pizza/Carton
7" (Option)	368	227	224	8
7"	442	410	224	18

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