

SENSYLINK Microelectronics

(CAS94257C)

Low-Voltage 4-Bit 1-of-2 FET Multiplexer/Demultiplexer

The CAS94257C device is a 4-bit 1-of-2 high-speed FET multiplexer/demultiplexer. The low on-state resistance of the switch allows connections to be made with minimal propagation delay.

It is ideally used in Server, Wearable Device, IOT Device, Industrial Automation and Telecom Equipment.

Low-Voltage 4-Bit 1-of-2 FET Multiplexer/Demultiplexer

1. Description

The CAS94257C device is a 4-bit 1-of-2 high-speed FET multiplexer/demultiplexer. The low on-state resistance of the switch allows connections to be made with minimal propagation delay.

The select(S) input controls the data flow. The FET multiplexers/demultiplexers are disabled when the output-enable (\overline{OE}) input is high. This device is fully specified for partial-power-down applications using I_{off} . The I_{off} feature ensures that damaging current will not backflow through the device when it is powered down. The device has isolation during power off.

To ensure the high-impedance state during power up or power down, \overline{OE} should be tied to V_{CC} through a pull-up resistor; the minimum value of the resistor is determined by the current-sinking capability of the driver.

Available Package:

SOP-16, TSSOP-16, QFN4x3.5-16 package.

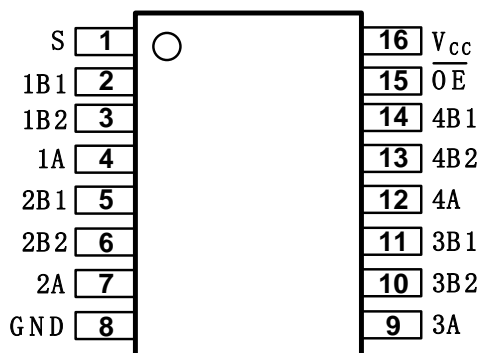
2. Features

- Rail-to-Rail Switching on Data I/O Ports
- I_{off} Supports Partial-Power-Down Mode Operation
- Latch-Up Performance Exceeds 100 mA Per JESD 78, Class II
- ESD Protection Exceeds JESD 22
 - – 2000-V Human-Body Model (A114-A)
 - – 200-V Machine Model (A115-A)

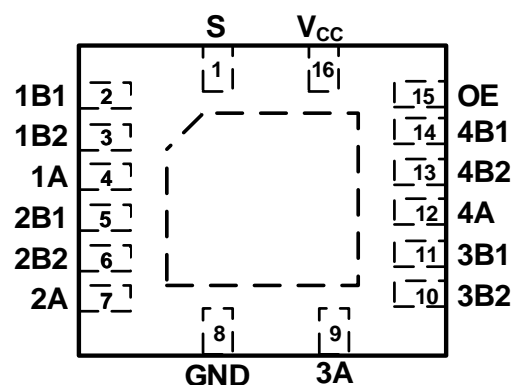
3. Applications

- Internet of Things
- Wireless Headphones
- Television Set
- 4-Bit Bus Multiplexing and Demultiplexing

4. Pin Configurations



SOP-16/TSSOP-16(Package Code M/MT)



QFN4x3.5-16(Package Code QN)

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5. Typical Application

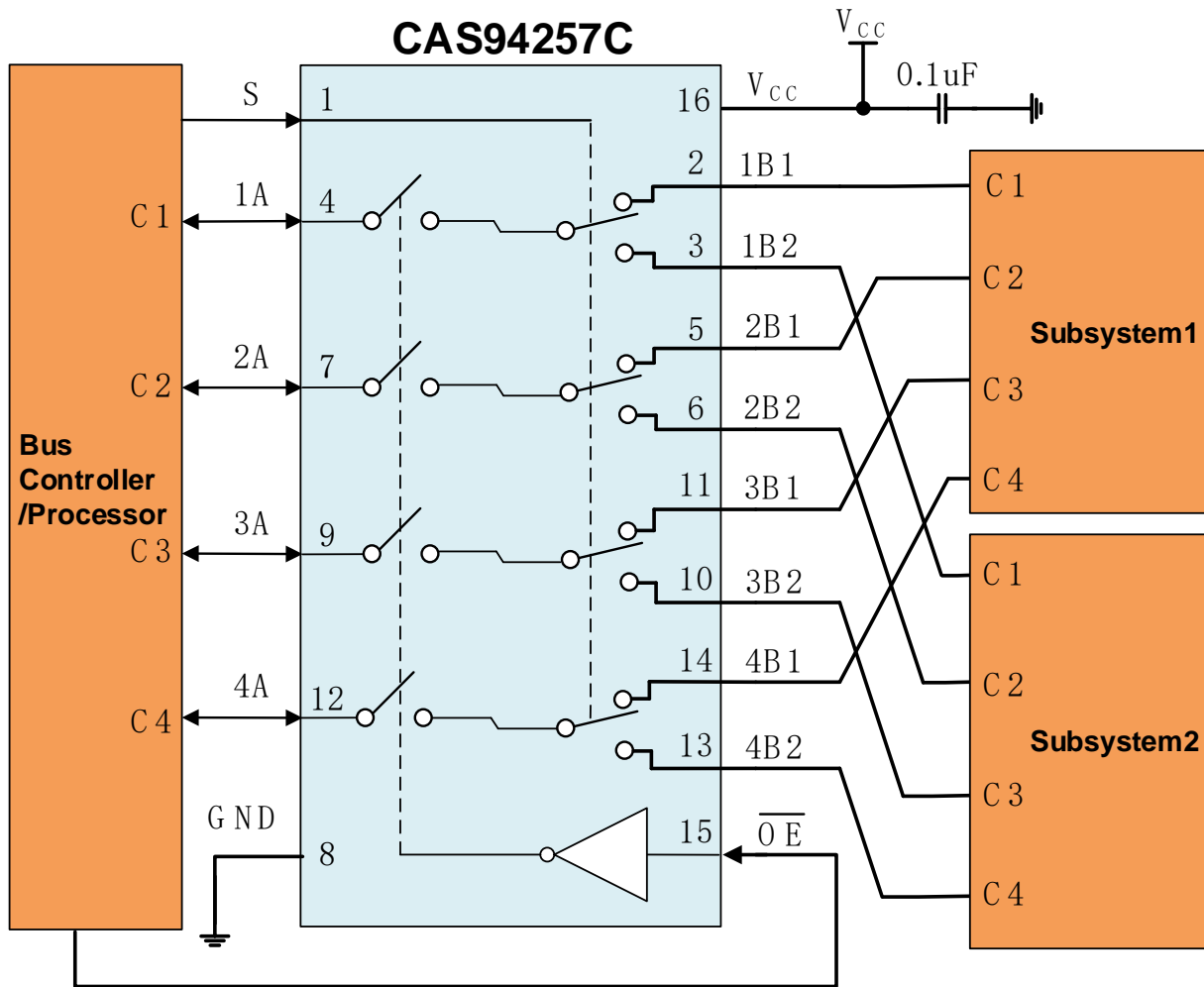


Figure 1. Typical Application of the CAS94257C

6. Pin Description

Pin Name	Pin No.	Description
1A	4	Channel 1 out/in common
1B1	2	Channel 1 in/out 1
1B2	3	Channel 1 in/out 2
2A	7	Channel 2 out/in common
2B1	5	Channel 2 in/out 1
2B2	6	Channel 2 in/out 2
3A	9	Channel 3 out/in common
3B1	11	Channel 3 in/out 1
3B2	10	Channel 3 in/out 2
4A	12	Channel 4 out/in common
4B1	14	Channel 4 in/out 1
4B2	13	Channel 4 in/out 2
GND	8	Ground
$\overline{\text{OE}}$	15	Output Enable, active low
S	1	Select
V _{CC}	16	Power supply input pin, using 0.1uF low ESR ceramic capacitor to ground

Low-Voltage 4-Bit 1-of-2 FET Multiplexer/Demultiplexer

7. Function Block

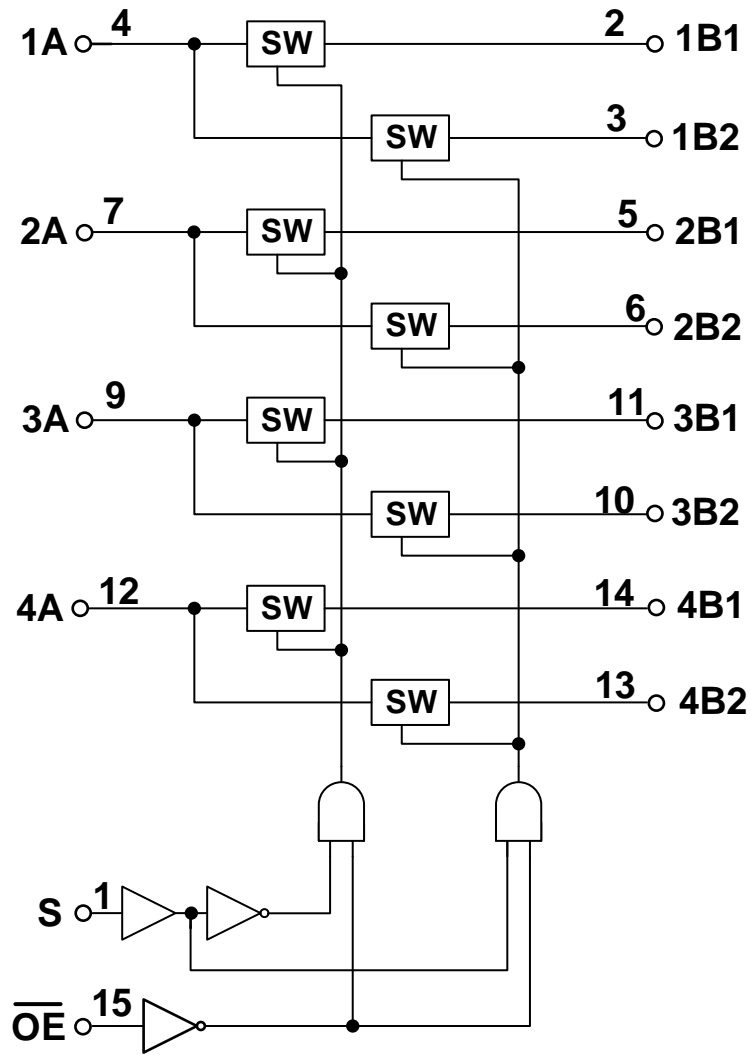
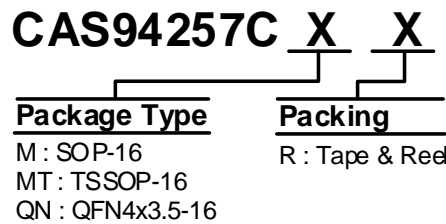


Figure 2. CAS94257C Function Block

Low-Voltage 4-Bit 1-of-2 FET Multiplexer/Demultiplexer
8. Ordering Information


Order PN	Green ⁽¹⁾	Package	Marking ID ⁽²⁾	Packing	MPQ	Operation Temperature
CAS94257CMR	Halogen free	SOP-16	94257C YWWAXX	Tape & Reel	4,000	-40°C~+125°C
CAS94257CMTR	Halogen free	TSSOP-16	94257C YWWAXX	Tape & Reel	4,000	-40°C~+125°C
CAS94257CQNR	Halogen free	QFN4x3.5-16	94257C YWWAXX	Tape & Reel	5,000	-40°C~+125°C

Notes:

- (1) Based on ROHS Y2012 spec, Halogen free covers lead free. So most package types Sensylink offers only states halogen free, instead of lead free.
- (2) Marking ID includes 2 rows of characters. In general, the 1st row of characters are part number, and the 2nd row of characters are date code plus production information.



SENSYLINK Microelectronics Inc.

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