



54VCXH163245

Rad-hard 16-bit transceiver, bi-voltage 3.3 - 1.6 volts level shifter

Data brief

Features

- Dual supply bidirectional level shifter
- Voltage range from 3.3 V to 1.6 V
- Separated enable pin for 3-state output
- Internal 26 Ω limiting resistor on each I/O
- Bus hold
- Fail safe
- Cold spare
- Hermetic package
- 300 krad (Si) at any Mil1019 dose rate
- SEL immune to 110MeV.cm²/mg LET ions
- QML-V qualification on going

Description

The 54VCXH163245 is a rad-hard advanced high-speed CMOS, Schmitt trigger 16-bit bidirectional multi-purpose transceiver with 3-state outputs and cold sparing.

Designed for use as an interface between a 3.3 V bus and a 1.8 V bus in mixed 3.3 V / 1.8 V supply systems, it achieves high-speed operation while maintaining the CMOS low power dissipation.



Ceramic Flat-48

The upper metallic lid is not electrically connected to any pins, nor to the IC die inside the package

All pins have cold spare buffers to change them to high impedance when V_{DD} is tied to ground.

This IC is intended for two-way asynchronous communication between data buses and the direction of data transmission is determined by the nDIR inputs.

Table 1. Device summary

Reference	SMD	Quality level	Package	Lead finish	Mass	EPPL	Temp range
RHFXH163245K1	-	Engineering model	Flat-48	Gold	1.50 g	-	-55 °C to +125 °C
RHFXH163245K01V	5962F1120702VXC	Flight model					

Note: Contact your ST sales office for information on the specific conditions for products in die form.

1 Ordering information

Table 2. Order codes

Order code	Description	Temperature range	Package	Marking	Packing
RHFXH163245K1	Engineering model	-55 °C to +125 °C	Flat-48	RHFXH163245K1	Conductive strip pack
RHFXH163245K01V	QMLV-Flight			5962F1120702VXC	

2 Revision history

Table 3. Document revision history

Date	Revision	Changes
23-Sep-2011	1	Initial release.
26-Jan-2012	2	Modified title on cover page. Modified Table 1: Device summary on cover page. Added Table 2: Order codes .

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