



VOH260A / VOH263A - 10 MBd Evaluation Board User's Guide

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INTRODUCTION

The "VOH26xA - 10 MBd" evaluation boards provide a readily available platform for performance and design evaluation of Vishay's VOH260A and VOH263A 10 MBd single-channel and dual-channel digital high speed optocouplers, as shown below in Fig. 1.

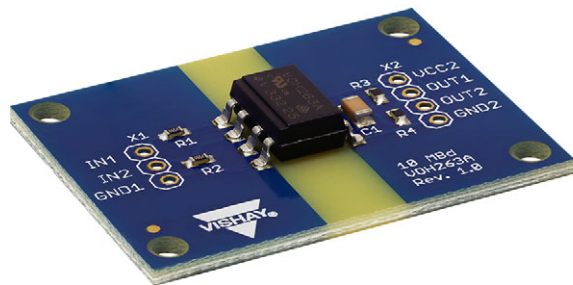
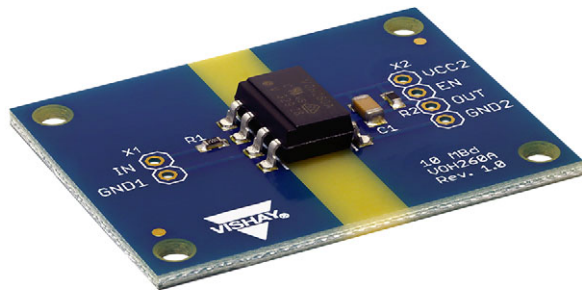


Fig. 1 - VOH260A and VOH263A Evaluation Boards

DESCRIPTION - VOH263A - 10 MBd

The IRLED on the input side can be driven directly with a 3.3 V signal at connector X₁, I_{N1} and I_{N2}, resulting in a forward current I_F of 7.5 mA.

On the output side the VOH263A provides two open drain outputs, which are terminated with the pull-up resistances R₃ and R₄. The output signals are provided at connector X₂, OUT₁ and OUT₂. The 3.3 V power supply must be connected at X₂, V_{CC2}.

TEST CONFIGURATION

The default board configuration provides for inverted pulse transmission and requires the connection of a pulse generator G₁ and a voltage source V_{CC2} and oscilloscope OSC, as shown in Fig. 3 and Fig. 4.

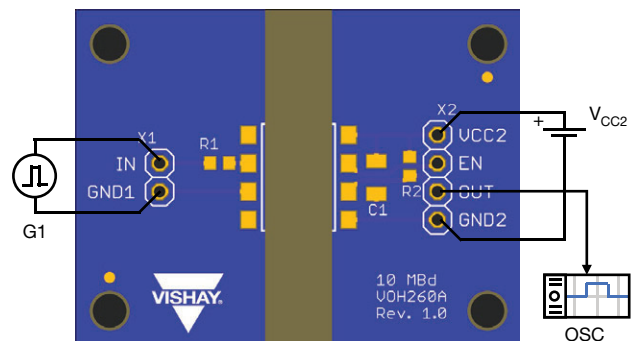


Fig. 2 - VOH260A, Default Connection

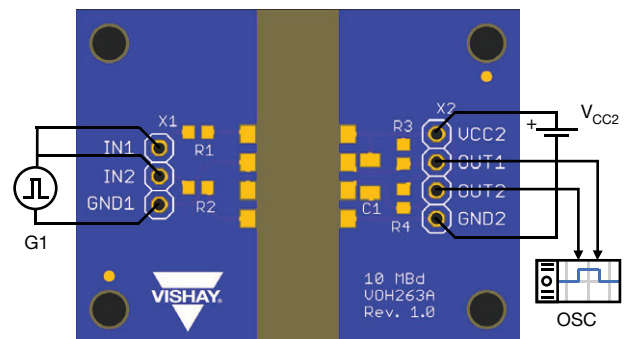


Fig. 3 - VOH263A, Default Connection

DESCRIPTION - VOH260A - 10 MBd

The IRLED on the input side can be driven directly with a 3.3 V signal at connector X₁, I_N, resulting in a forward current I_F of 7.5 mA.

On the output side, the VOH260A provides an open drain output, which is terminated with a pull-up resistance R₂. The output signal is provided at connector X₂, OUT. The 3.3 V power supply must be connected at X₂, V_{CC2}.

The output enable EN at X₂ enables or disables the output and can be set to either V_{CC2} or GND₂ level, or (default) left open, which is equal to setting to V_{CC2}.

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TABLE 1 - BILL OF MATERIALS - VOH260A			
IDENTIFIER	PART NUMBER	COMMENT	MANUFACTURER
X ₁	90120-0762	Pin header, 2 circuits, not assembled	Molex
X ₂	90120-0764	Pin header, 4 circuits, not assembled	Molex
R ₁	CRCW0603270RFKTA	270 Ω resistance	Vishay
R ₂	CRCW0603360RFKTA	360 Ω resistance	Vishay
C ₁	VJ1206Y104KXXAC	100 nF capacitance	Vishay
OC ₁	VOH260A-X007T	High speed optocoupler, 10 MBd	Vishay

TABLE 2 - BILL OF MATERIALS - VOH263A			
IDENTIFIER	PART NUMBER	COMMENT	MANUFACTURER
X ₁	90120-0763	Pin header, 3 circuits, not assembled	Molex
X ₂	90120-0764	Pin header, 4 circuits, not assembled	Molex
R ₁	CRCW0603270RFKTA	270 Ω resistance	Vishay
R ₂	CRCW0603270RFKTA	270 Ω resistance	Vishay
R ₃	CRCW0603360RFKTA	360 Ω resistance	Vishay
R ₄	CRCW0603360RFKTA	360 Ω resistance	Vishay
C ₁	VJ1206Y104KXXAC	100 nF capacitance	Vishay
OC ₁	VOH263A-X007T	High speed optocoupler, 10 MBd	Vishay

SCHEMATIC

The default assembly and schematic can be seen in Fig. 4 and Fig. 5.

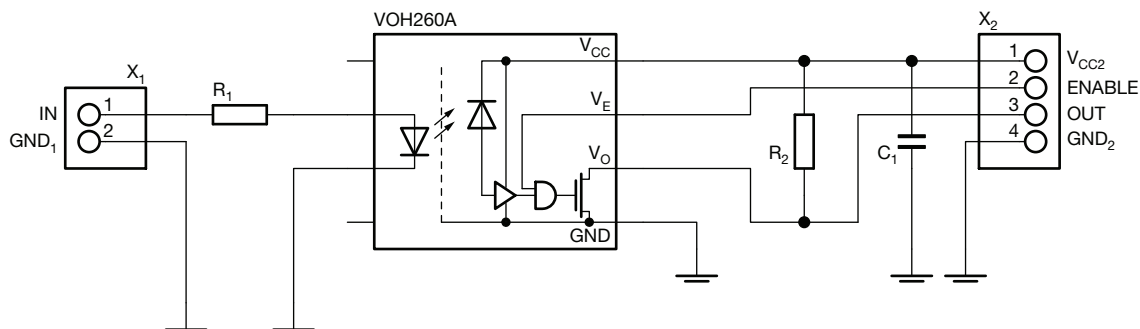


Fig. 4 - VOH260A Schematic

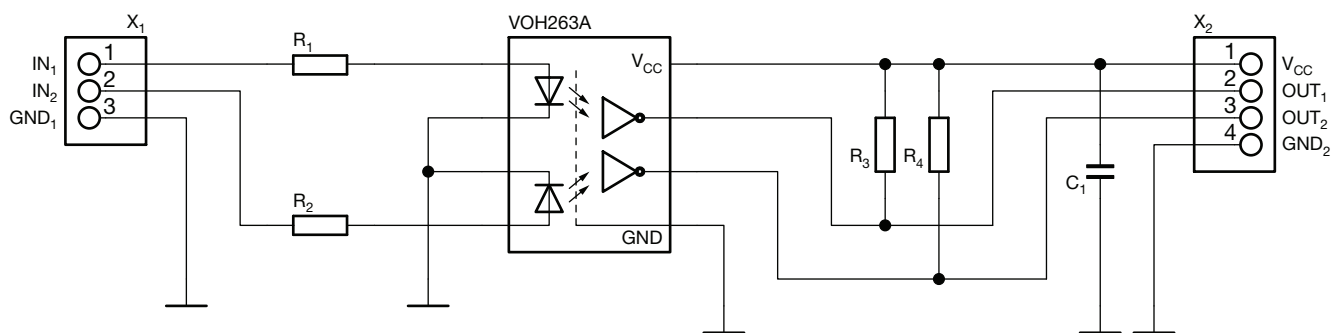


Fig. 5 - VOH263A Schematic