

OPTICAL ROTARY ENCODER

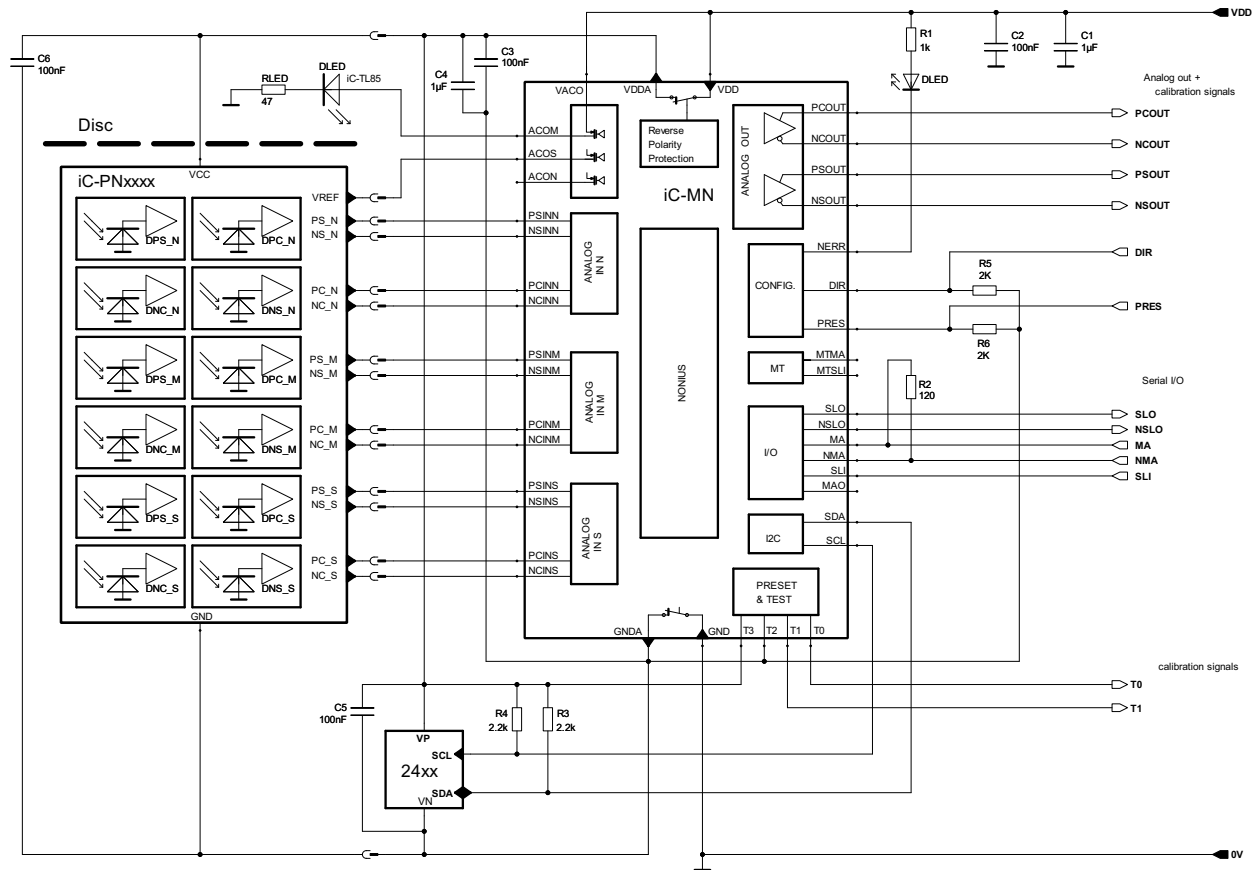


Figure 1: Application circuit of iC-MN with iC-PNxxxx for optical rotary encoder featuring 3-channel nonius interpolation.

MAGNETIC LINEAR / ROTARY ENCODER

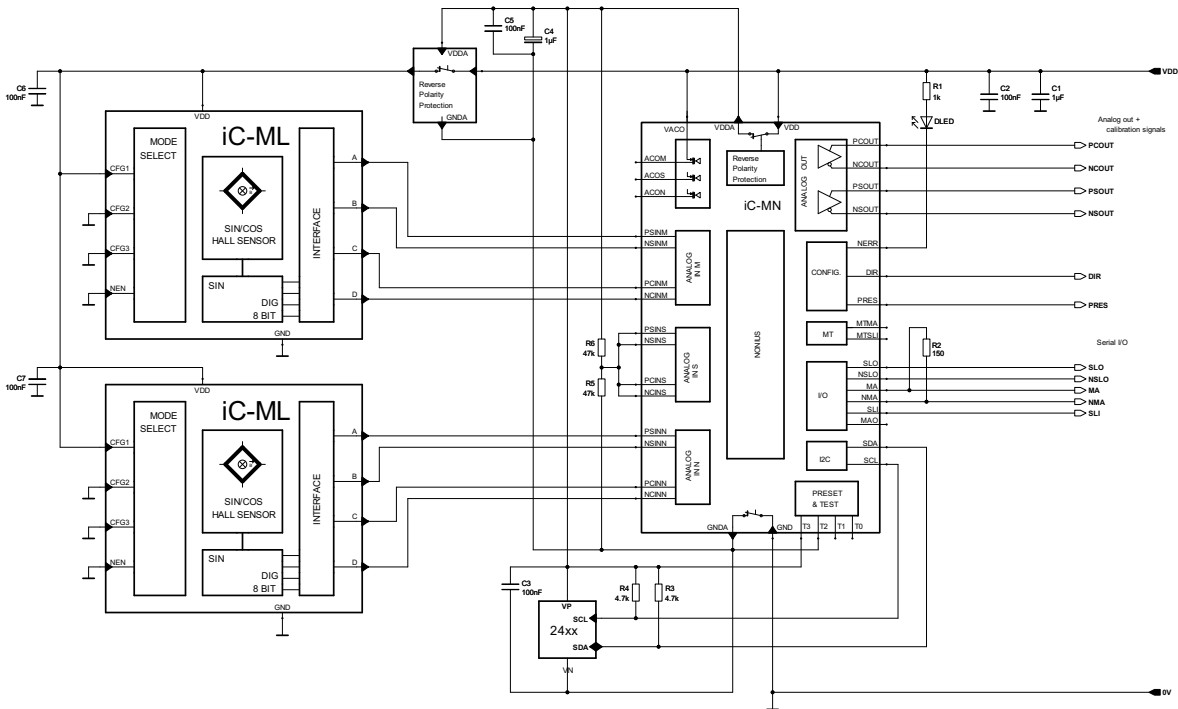


Figure 2: Application circuit of iC-MN with two iC-ML for magnetic linear / rotary encoders based on Hall sensors featuring 2-channel nonius interpolation.

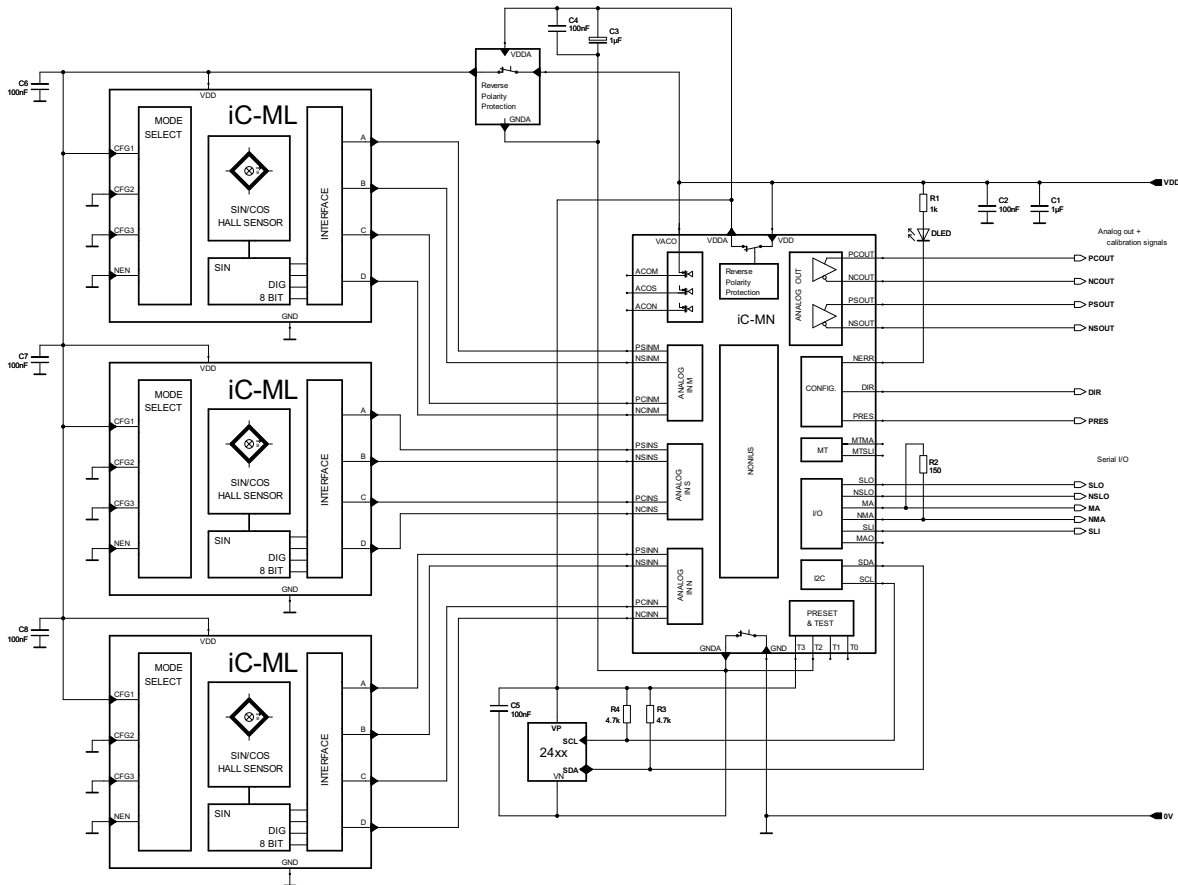


Figure 3: Application circuit of iC-MN with three iC-ML for magnetic linear / rotary encoders based on Hall sensors featuring 3-channel nonius interpolation.

iC-MN AN5

APPLICATION NOTE: CIRCUIT EXAMPLES



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SINGLETURN / MULTITURN ENCODER

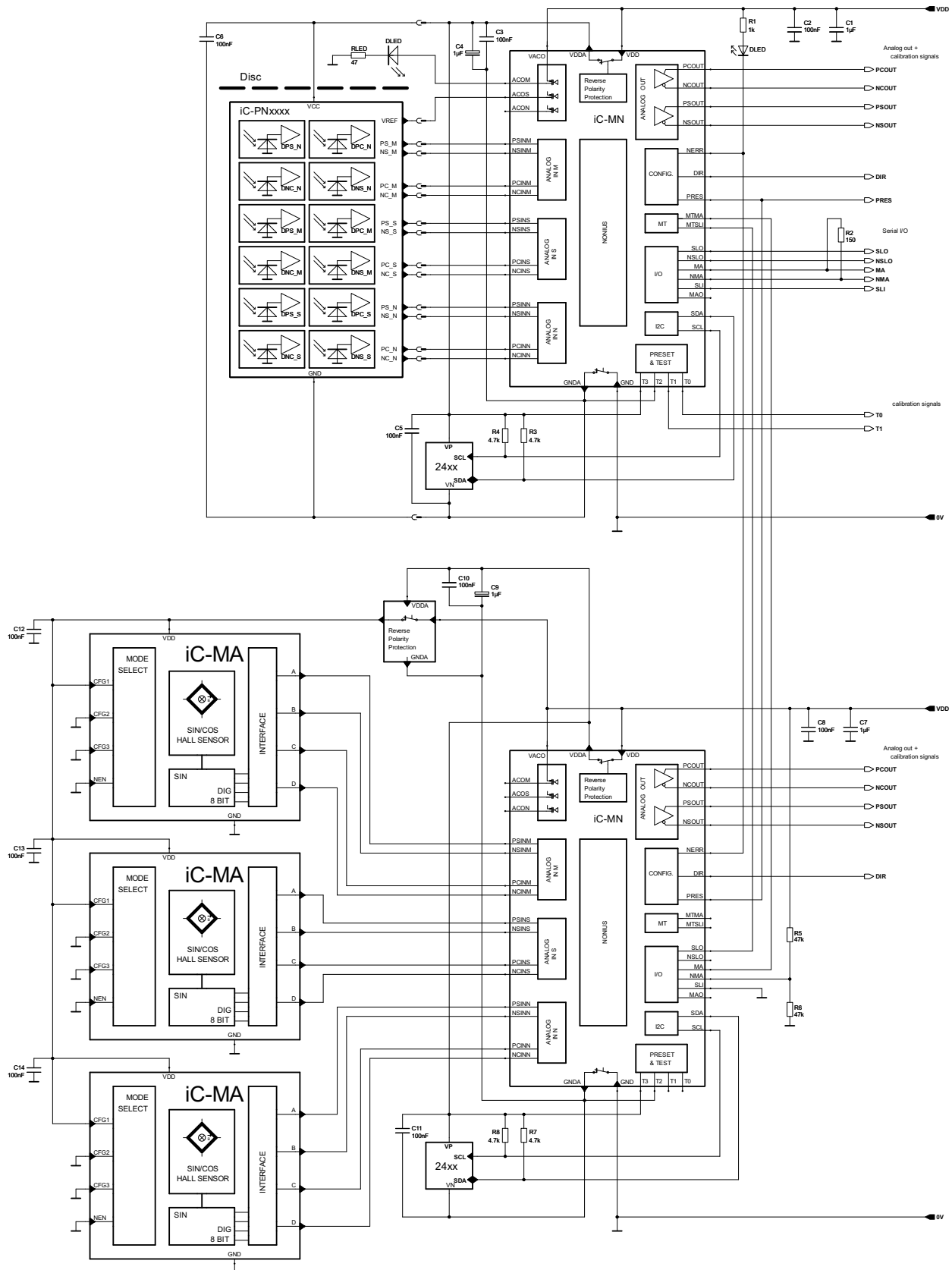


Figure 5: Application circuit of iC-MN with iC-PNxxxx as singleturn sensor and iC-MA as multiturn sensor.

ADDITIONAL APPLICATION HINTS

To protect the EEPROM against a reversed power supply voltage it is connected to the integrated supply switch (pins VDDA and GNDA). The EEPROM specifications and absolute maximum ratings should comply to the pin voltages of VDDA, SCL and SDA during startup and operation. A protective circuit may be advisable depending on the EEPROM model.

REVISION HISTORY

Rel.	Rel. Date*	Chapter	Modification	Page
A1	2009-03-10		Initial version	
A2	2010-02-08	ADDITIONAL APPLICATION HINTS	Chapter added	6
A3	2012-03-12		Figure 1: R3 and R4 added	1
A4	2012-06-26		Figure 1, 5: added iC-TL85 for LED type	1, 5
A5	2015-08-11		Figure 1: C1 1µF capacitor changed to 1µF unipolar capacitor Figure 2: C1 1µF capacitor changed to 1µF unipolar capacitor Figure 3: C1 1µF capacitor changed to 1µF unipolar capacitor Figure 4: C1 1µF capacitor changed to 1µF unipolar capacitor Figure 5: C1 and C7 1µF capacitor changed to 1µF unipolar capacitor	1...5

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* Release Date format: YYYY-MM-DD