

TMS374 family in-circuit programming

**Users Manual
Rev. 1.3
2005.05.11**

Revision History

Revision	Date	Description of Changes
1.0	2004.11.17	Initial revision
1.1	2004.11.23	Added TMS374 with Am29F010A PLCC ROM target connection
1.2	2004.11.26	Added TMS374 with M28F256 and M27C256B PLCC ROM target connection
1.3	2005.05.11	Added Magneti Marelli IAW 1AP.80 target connection

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1. INTRODUCTION

This manual will guide you through the installation and operation of the XPROG-m with TMS374 in-circuit programming (ICP) adapter. The TMS374 ICP adapter has been designed for Reading, Programming of TMS374 internal EEPROM contents.

2. REQUIREMENTS

The following describes what items are required for TMS374 in-circuit programming.

- XPROG-m programmer board (P/C: 1-001-0002)
- TMS374 family in-circuit programming adapter (P/C: 1-002-0008)
- Power supply 15Vdc/300mA
- Device Programmer Desktop V4.2 or higher (P/C: 2-001-0001)
- TMS370/TMS374 family authorization (P/C: 2-002-0005)

Figure 1. shows system preparation for TMS374 in-circuit programming.

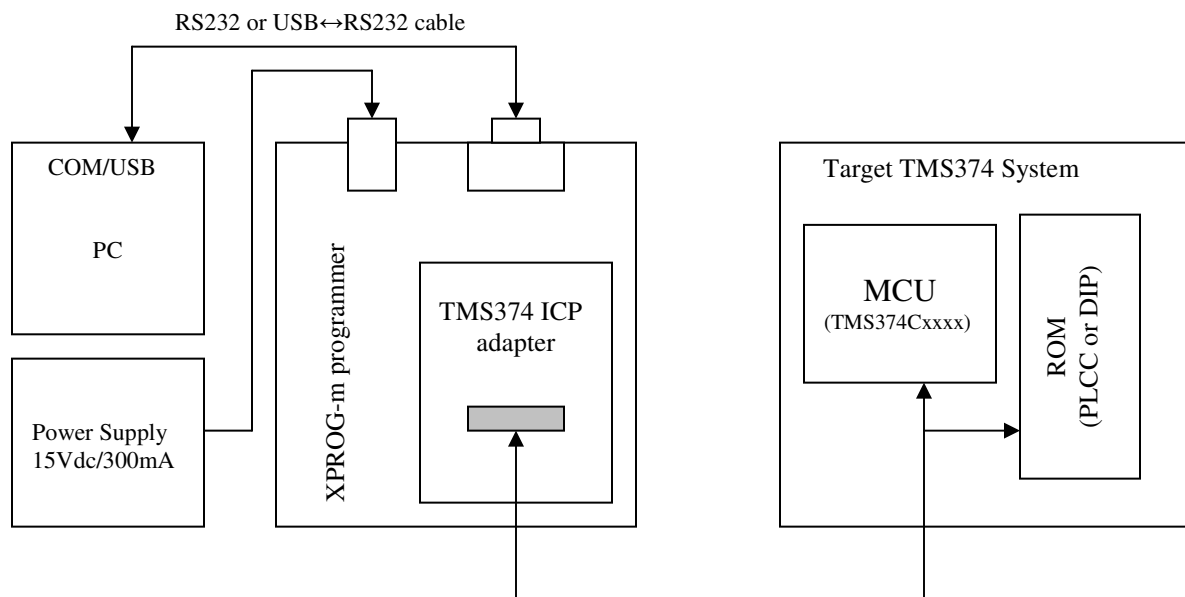


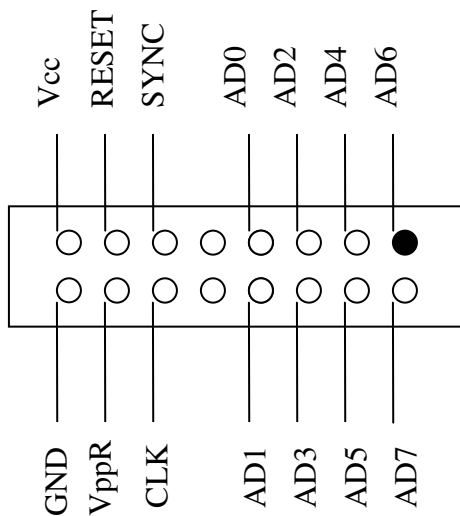
Figure 1. System preparation

3. TARGET CONNECTION

This section contains overall information about ICP interface and description how to connect TMS374 MCU family.

3.1. ICP interface

In-Circuit Programming interface is basic for TMS374 ICP adapter. With this interface XPROG-m can access internal MCU EEPROM memory for reading and programming. Figure 2. and Table 1 shows ICP connector signals and descriptions.



Signal name	Description
AD0...AD7	Address/Data input/output pins
CLK*	Target MCU external clock
SYNC	Target MCU synchronization pin
RESET	Target MCU RESET pin
VppR**	Target MCU EEPROM write protection override signal.
Vcc	Target MCU power supply +5V/100mA
GND	Signal and power ground

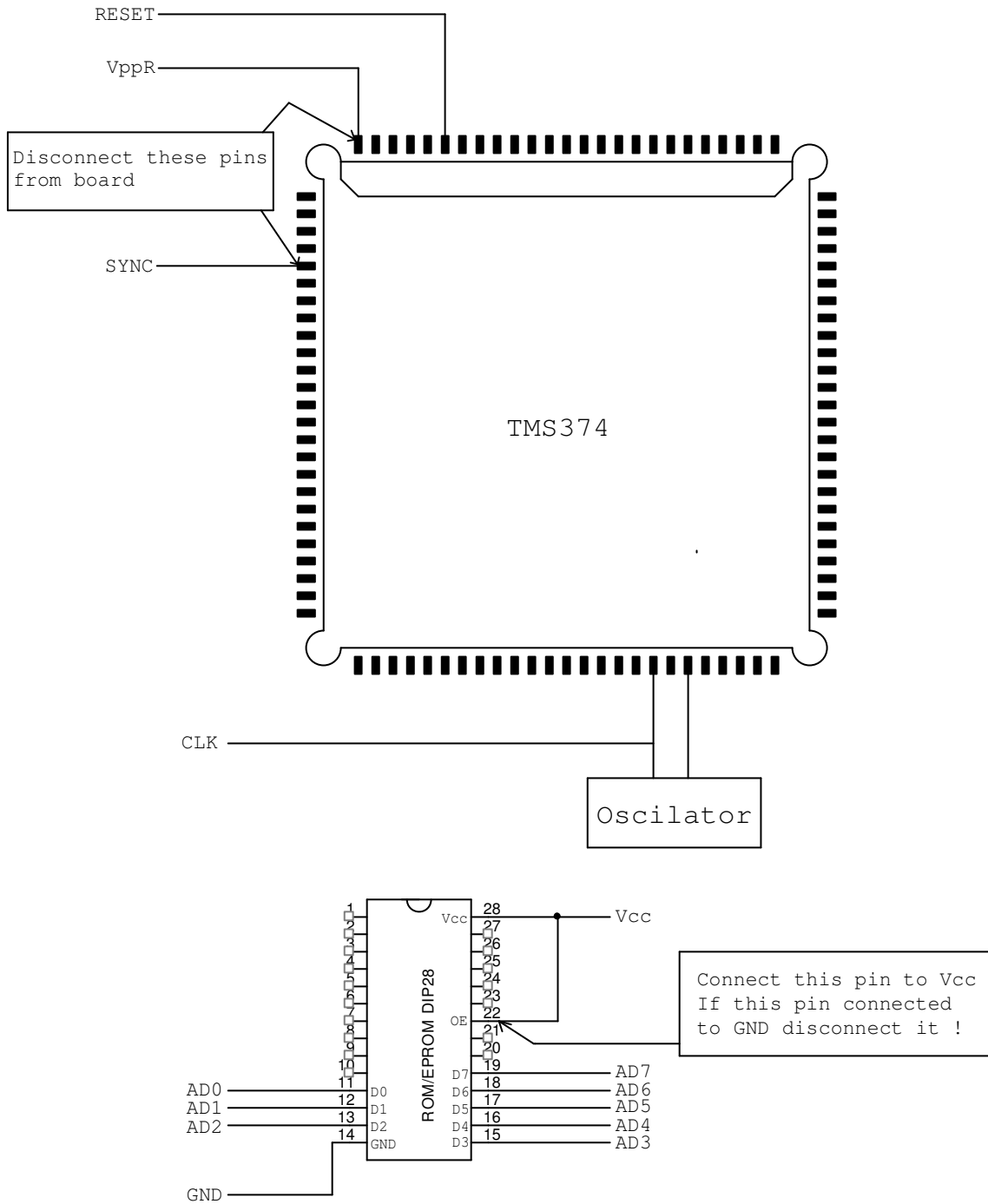
* In some cases requires 2K series resistor.

** This signal is not required in Read mode. In Write mode this signal is required if EEPROM is programming protected. Dependence on target system the EEPROM is programming protected or not.

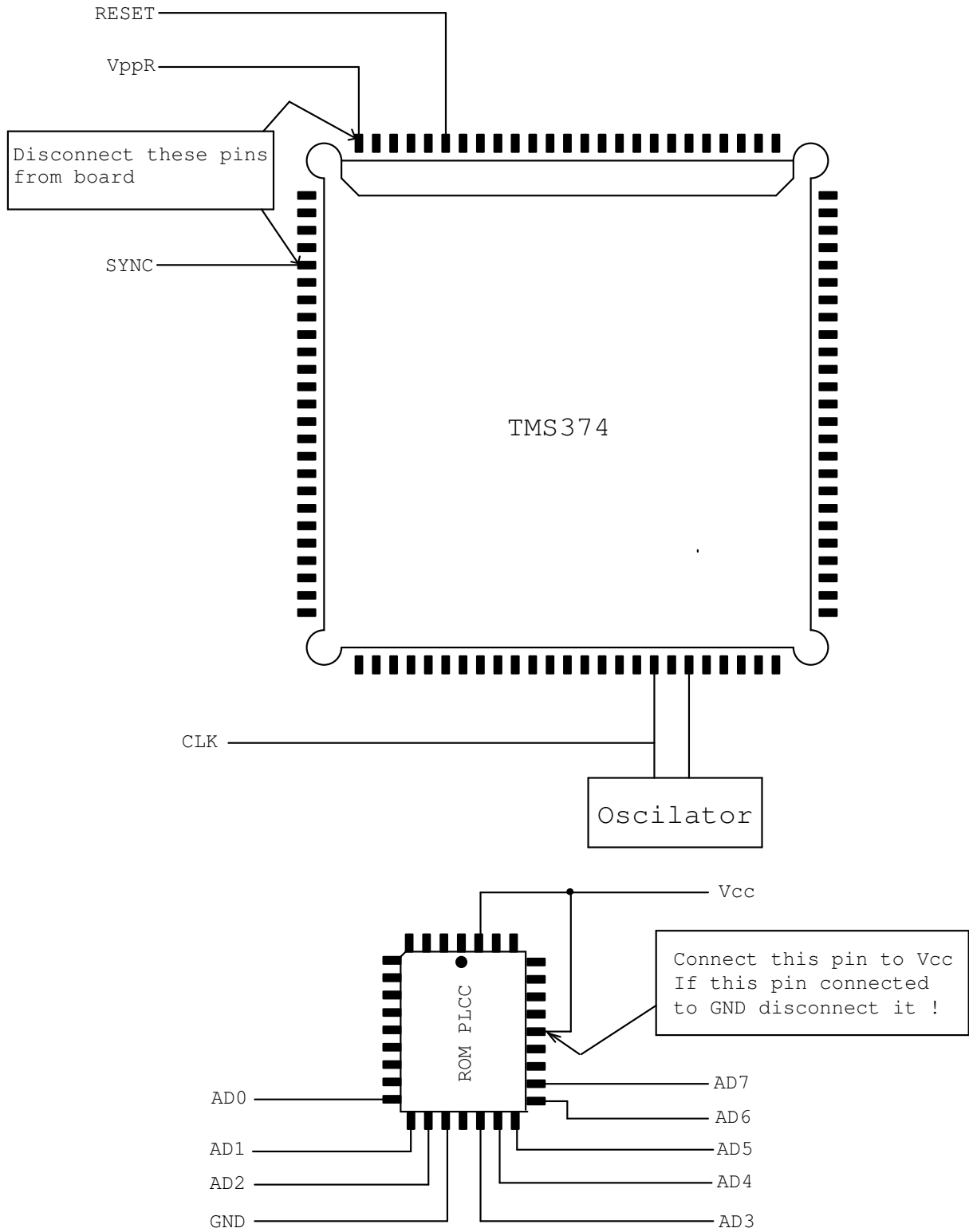
Figure 2. The ICP connector

Table 1. Signals description

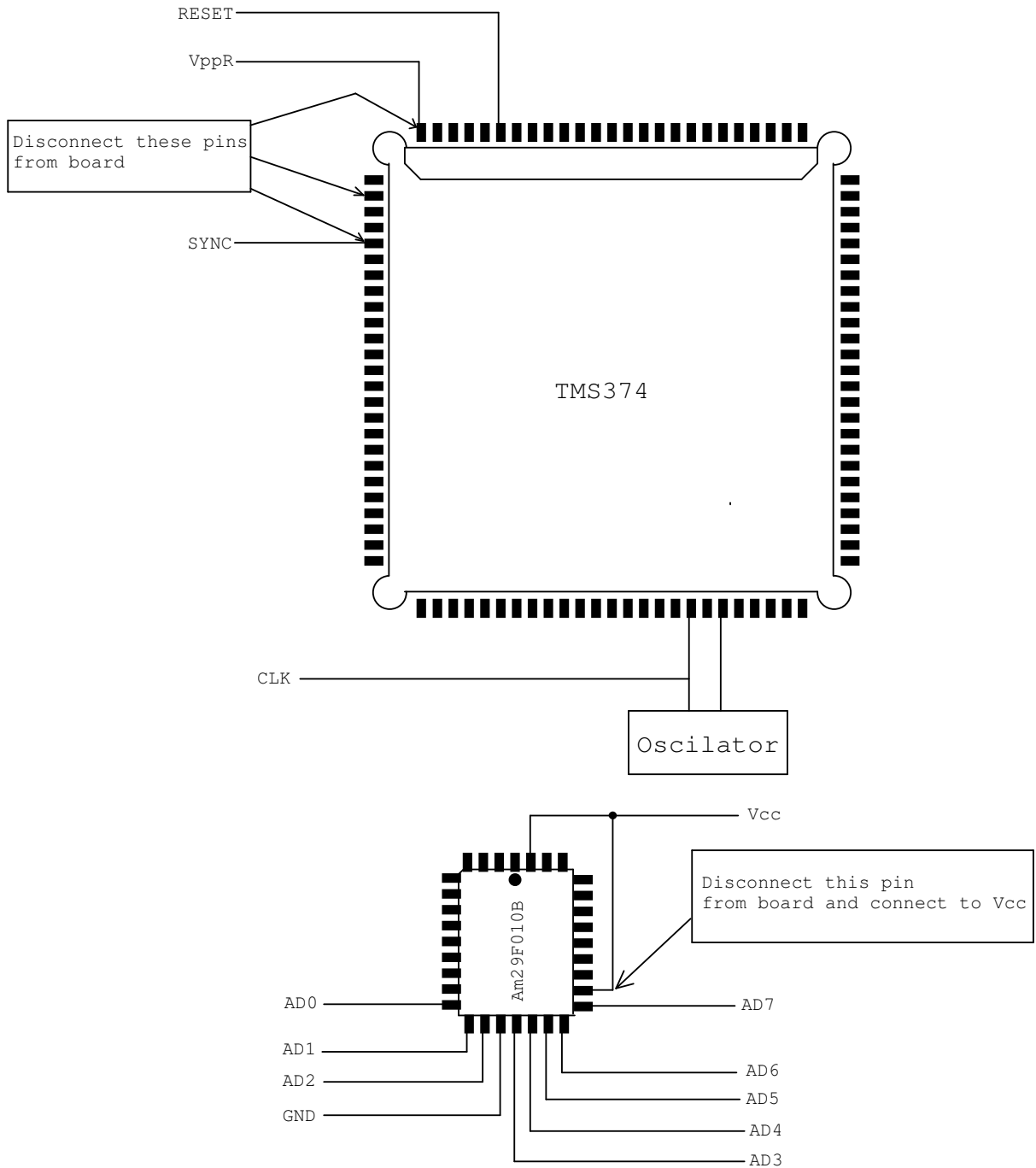
3.2. TMS374 with DIP ROM



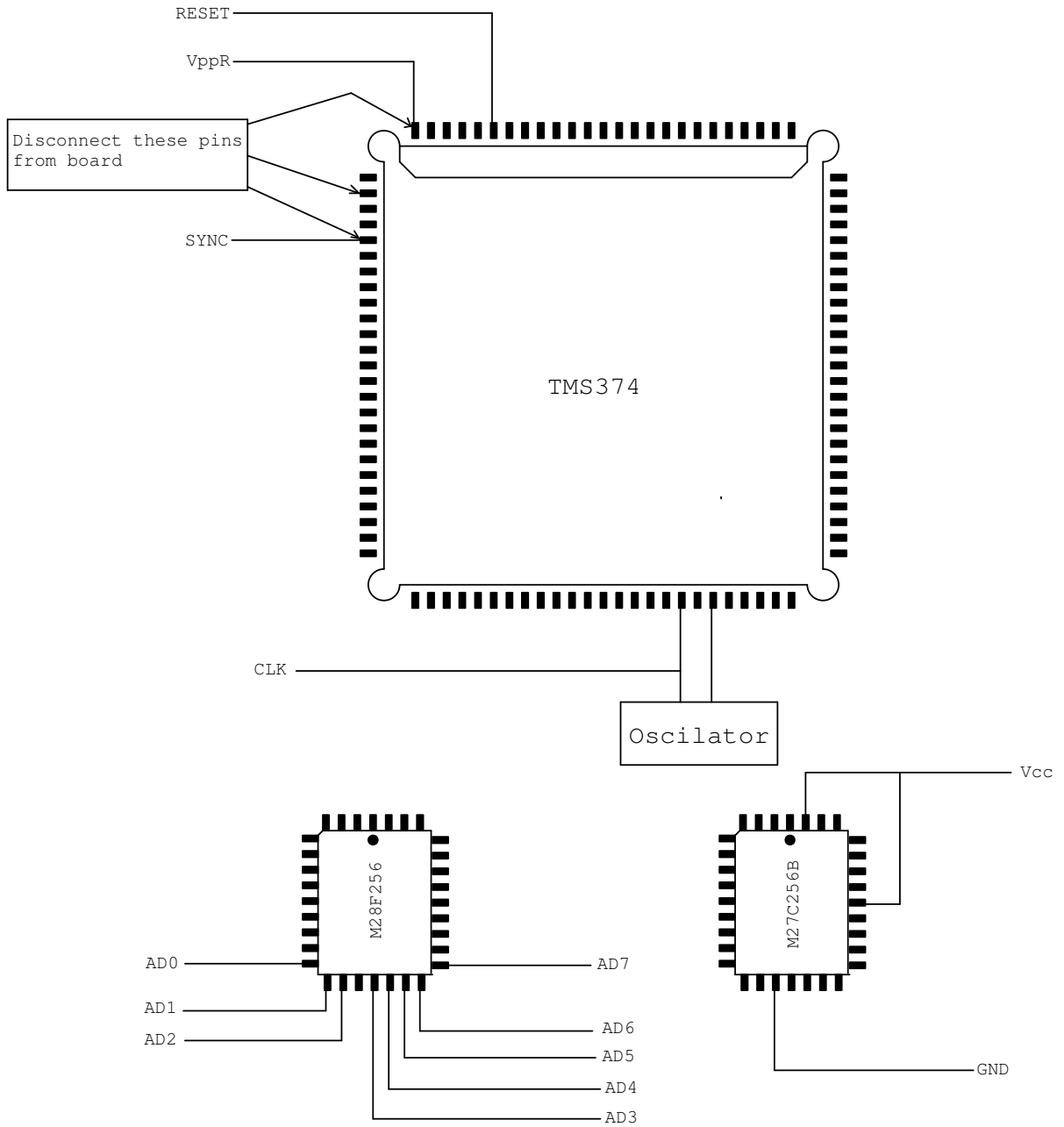
3.3. TMS374 with PLCC ROM



3.4. TMS374 with Am29F010A PLCC ROM



3.5. TMS374 with M28F256 and M27C256B PLCC ROM



3.6. Magneti Marelli IAW 1AP.80

