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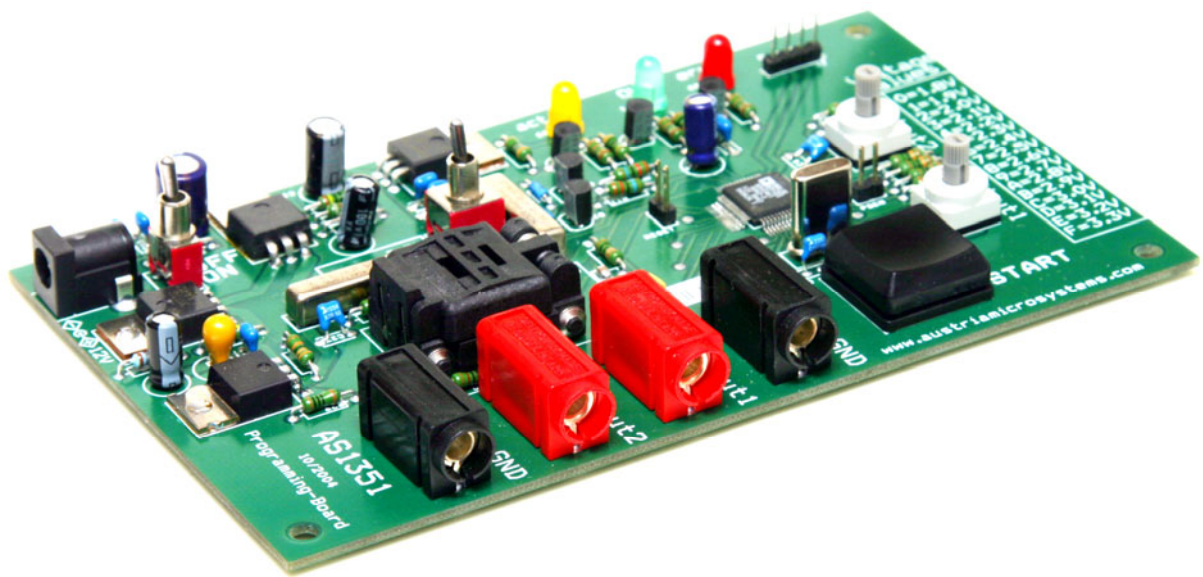
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AS1351

Programming Board Application Note



General Description

Switch Description

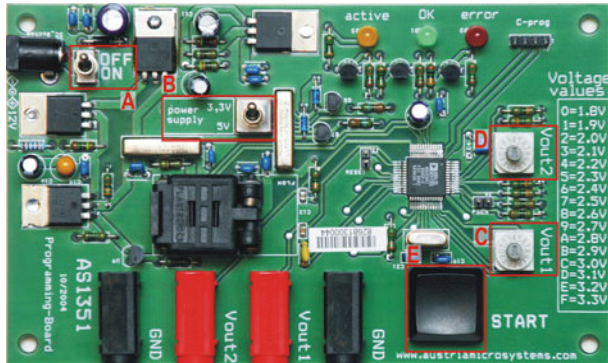


Figure 1: Board description

Table 1 : Switch description

| Mark | Switch | Description | Information | |
|------|-------------------|-----------------------------|---|--|
| A | ON/OFF | ON/OFF switch | Board powered OFF | Board powered ON |
| B | power supply | Voltage switch | V _{CC} of the IC is set to 3.3V | V _{CC} of the IC is set to 5V |
| C | V _{OUT1} | Programming voltage value 1 | Rotary switch for programming V _{OUT1} of the IC. Please see table for values. | |
| D | V _{OUT2} | Programming voltage value 2 | Rotary switch for programming V _{OUT2} of the IC. Please see table for values. | |
| E | START | Start Button | If hit the IC will be programmed with the chosen values for V _{OUT1-2} | |

Feedback and Socket Description

Table 2: Feedback and Socket Description

| Mark | Name | Description |
|------|--------|--|
| F | active | ON if Supply is active. |
| G | OK | If ON after programming sequence, the IC was successfully programmed. Blinks if an already programmed IC was placed in the socket. |
| H | error | If ON after programming sequence, the programming of the IC failed. |
| I | Socket | An AS1351 can be placed here, either to be programmed or to be evaluated. |

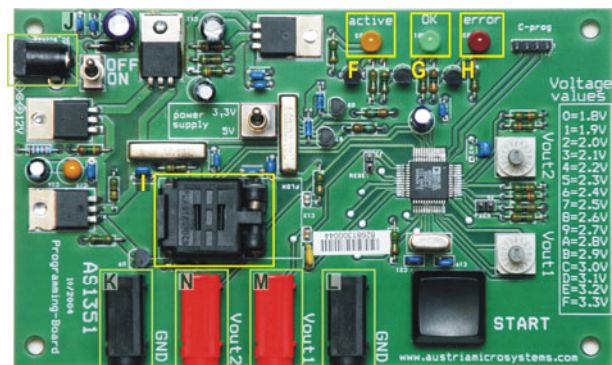


Figure 2: Board description

Input/Output Description

Table 3: Input/Output Description

| Mark | Connector | Description |
|------|-------------------|--|
| J | DC-Jack | Supply Voltage Connector (12V / 900mA) |
| K-L | GND | Ground Pins |
| M | V _{OUT1} | Output Voltage 1 |
| N | V _{OUT2} | Output Voltage 2 |

Voltage Selectors

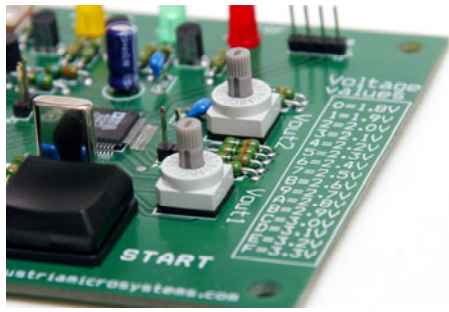


Figure 3: Voltage Selectors

Table 4: Positions for Voltage Programming

| Position | Voltage | Position | Voltage |
|----------|---------|----------|---------|
| 0 | 1.8V | 8 | 2.6V |
| 1 | 1.9V | 9 | 2.7V |
| 2 | 2.0V | A | 2.8V |
| 3 | 2.1V | B | 2.9V |
| 4 | 2.2V | C | 3.0V |
| 5 | 2.3V | D | 3.1V |
| 6 | 2.4V | E | 3.2V |
| 7 | 2.5V | F | 3.3V |

Starting Up

Introduction

The Programming Board can be used to program the AS1351 Dual LDO regulator. The IC will be programmed according to the setting of the Rotary Switches. Programming is performed automatically after pressing the start button.

Power Setup

Make sure that the board is switched OFF (On/Off Switch “A” is OFF) then connect 12V supply voltage to the DC-jack (see Table 3: Input/Output Description). The supply must be capable to drive a current of 900mA. The polarity of the DC-Jack connector must be +12V inside and GND outside.

Inserting IC

The programming board must be equipped with the AS1351. When inserting an IC into the socket it is vital that the Pin1 marker of the IC (small dot) is placed in the corner where the socket is marked with the small dot.

Note: The programming board must be powered OFF while inserting or extracting an IC from the socket.

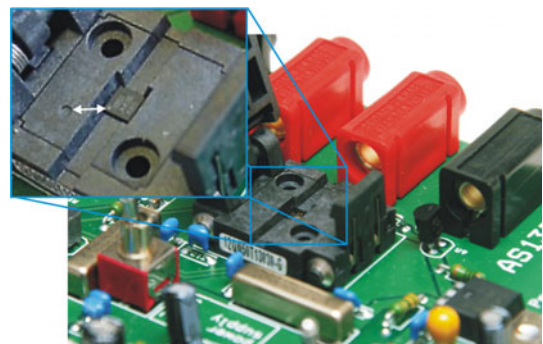


Figure 4: Pin1 Marker

Operational sequence

Measurement

1. If not present get the datasheet for the AS1351 from www.austriamicrosystems.com. Drive the IC on the Programming Board only with the recommended settings and values as described in the datasheet.
2. Make sure that the board is **turned OFF**. (On/Off switch “A” set to OFF.) Connect the power supply if necessary. (See Power Setup.)
3. Insert an AS1351 into the socket. Pin1 **must match** with the pin1 marking on the socket. (See Inserting IC.)
4. Set the power supply switch “B” to the desired supply voltage 3.3 or 5V
5. **Turn** the programming board **ON**. (On/Off switch “A” set to ON.) The yellow LED “F” should be on now.
6. Perform measurements at the outputs. “K-N”

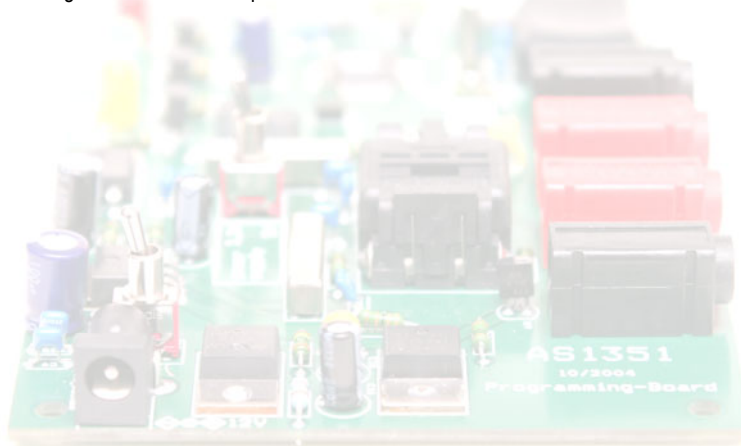
Note: Due to influences of the socket the full performance of the regulators can be slightly lower. The AS1351 can be programmed to an output voltage only once (One-Time-Programming OTP function).

Programming

1. If not present get the datasheet for the AS1351 from www.austriamicrosystems.com. Drive the IC on the Programming Board only with the recommended settings and values as described in the datasheet.
2. Make sure that the board is **turned OFF**. (On/Off switch “A” set to OFF.) Connect the power supply if necessary. (See [Power Setup](#).)
3. Insert an AS1351 into the socket. Pin1 **must match** with the pin1 marking on the socket. (See [Inserting IC](#).)
4. Set the **power supply** switch to **5V**
5. **Turn** the programming board **ON**. (On/Off switch “A” set to ON) The yellow LED “F” should be on now.
6. Select the required output voltages with the rotary switches “C, D”. Each number corresponds to a certain output voltage. (See [Table 4: Positions for Voltage Programming](#).)
7. Press the Start button “E”
 - If the green OK LED “G” turns ON, all required output voltages are programmed successfully!
 - If the red error LED “H” turns ON an error occurred during the programming.
8. **Turn** the board **OFF** (On/Off switch “A” set to OFF). Open the socket and remove the fully programmed AS1351.

Note: If an already programmed AS1351 is entered and the **START** button is pressed, the green LED starts to blink. A new programming is not performed.

Have fun using the Programming Board. If there are questions do not hesitate to contact us. See contact information below.



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