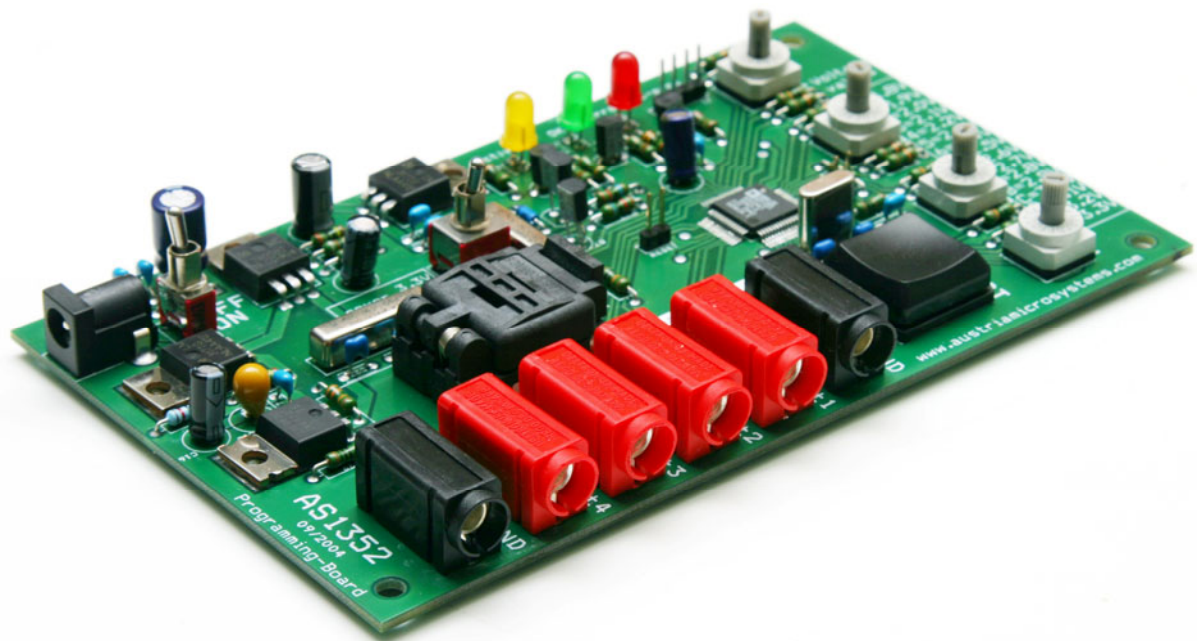


AS1352/57

Programming Board Application Note



General Description

Switch Description

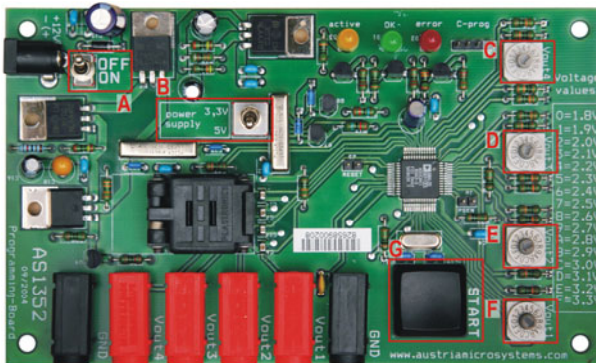


Figure 1: Board description

Table 1 : Switch description

Mark	Switch	Description	Information
A	ON/OFF	ON/OFF switch	<input type="checkbox"/> Board powered OFF <input type="checkbox"/> Board powered ON
B	power supply	Voltage switch	<input type="checkbox"/> V _{CC} of the IC is set to 3.3V <input type="checkbox"/> 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	V_{OUT3}	Programming voltage value 3	Rotary switch for programming V _{OUT3} of the IC. Please see table for values.
F	V_{OUT4}	Programming voltage value 4	Rotary switch for programming V _{OUT4} of the IC. Please see table for values.
G	START	Start Button	If hit the IC will be programmed with the chosen values for V _{OUT1-4}

Feedback and Socket Description

Table 2: Feedback and Socket Description

Mark	Name	Description
H	active	ON if Supply is active.
I	OK	If ON after programming sequence, the IC was successfully programmed. Blinks if an already programmed IC was placed in the socket.
J	error	If ON after programming sequence, the programming of the IC failed.
K	Socket	An AS1352 or an AS1357 can be placed here, either to be programmed or to be evaluated.

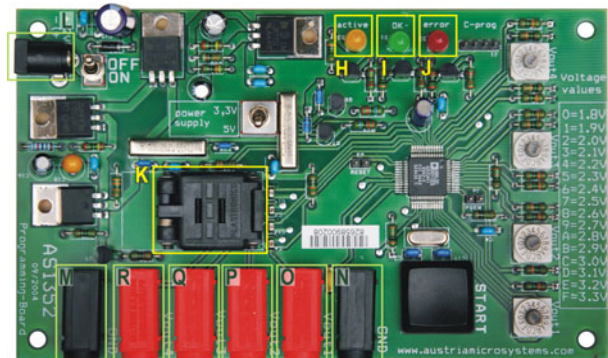


Figure 2: Board description

Input/Output Description

Table 3: Input/Output Description

Mark	Connector	Description
L	DC-Jack	Supply Voltage Connector (12V / 900mA)
M-N	GND	Ground Pins
O	V_{OUT1}	Output Voltage 1
P	V_{OUT2}	Output Voltage 2
Q	V_{OUT3}	Output Voltage 3
R	V_{OUT4}	Output Voltage 4

Voltage Selectors

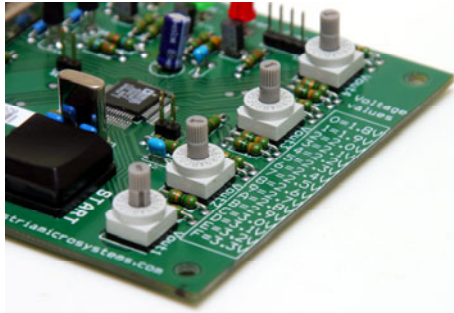


Figure 3: Voltage selectors

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 AS1352 Quad LDO regulators and AS1357 Triple LDO regulators as well. The specific type is automatically detected and 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 can be equipped with either the AS1352 or the AS1357. 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.

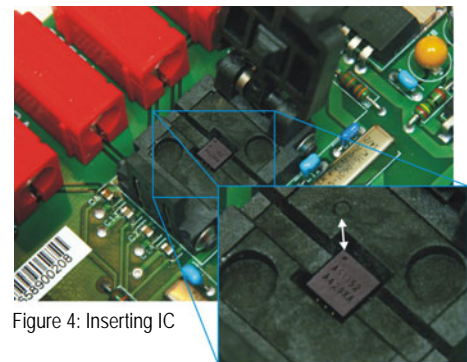


Figure 4: Inserting IC

Operational sequence

Measurement

1. If not present get the datasheet for the AS1352/57 from www.austriamicrosystems.com. Drive the IC on the Programboard 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 AS1352 or an AS1357 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 "H" should be on now.
6. Perform measurements at the outputs. "M-R"

Note: Due to influences of the socket the full performance of the regulators can be slightly lower. The AS1352/7 can be programmed to an output voltage only once (One-Time-Programming OTP function).

Programming

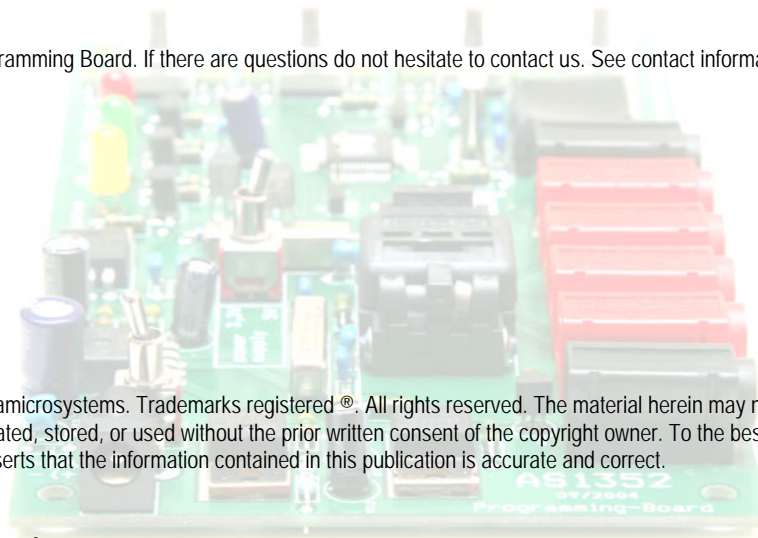
1. If not present get the datasheet for the AS1352/57 from www.austriamicrosystems.com. Drive the IC on the Programming Board only with the recommended settings and values as described in the datasheet.
2. Make sure that the board is **turned OFF**. (On/Off switch "A" set to OFF.) Connect the power supply if necessary. (See [Power Setup](#).)
3. Insert an AS1352 or an AS1357 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 "H" should be on now.
6. Select the required output voltages with the rotary switches. Each number corresponds to a certain output voltage. (See [Table 4: Positions for Voltage Programming](#).)
 - For the AS1352 all for rotary switches "C, D, E and F" are used.
 - For the AS1357 the rotary switches V_{OUT1} to V_{OUT3} "C, D, E" are used to program the voltages. V_{OUT4} "F" is ignored.

The programming board automatically detects whether an AS1352 or an AS1357 is inserted and performs programming accordingly

7. Press the START button "G"
 - If the green OK LED "I" turns ON, all required output voltages are programmed successfully!
 - If the red error LED "J" 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 AS1352 or AS1357.

Note: If an already programmed AS1352/57 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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