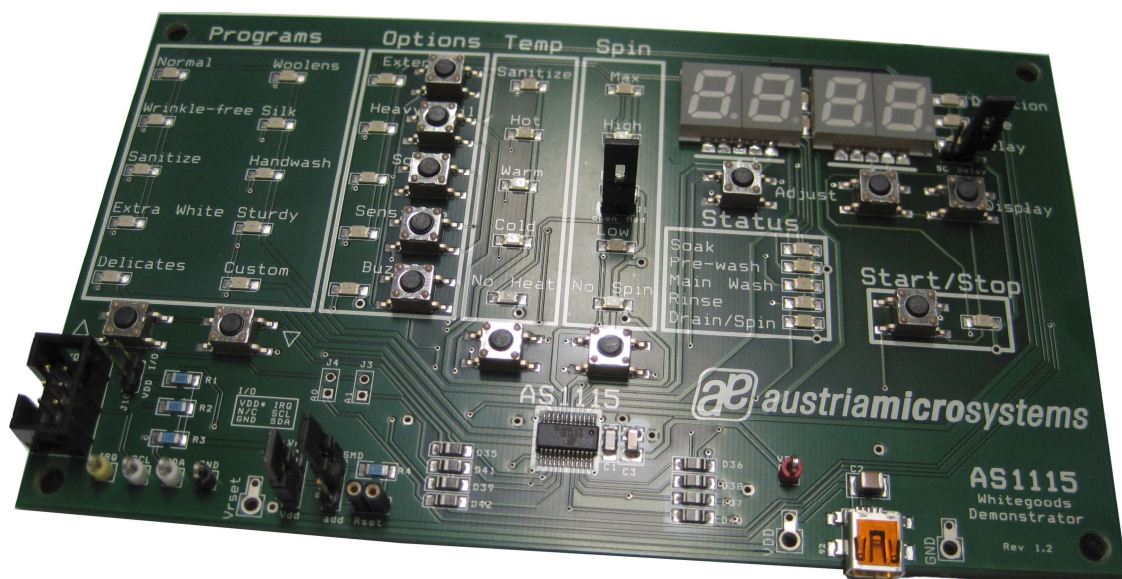


White Goods Demo Board Manual

AS1115

64 LEDs, I²C Interfaced LED Driver with Keyscan

www.austriamicrosystems.com/AS1115



General Description

Board Description

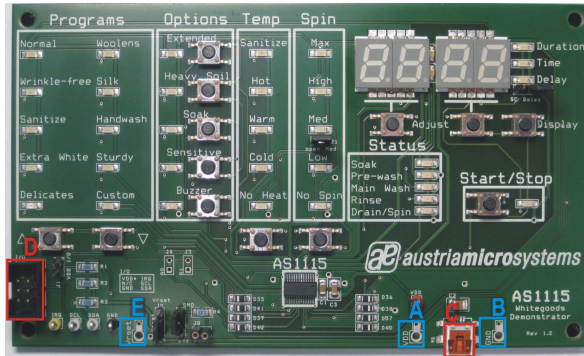


Figure 2: Board Description - Connectors

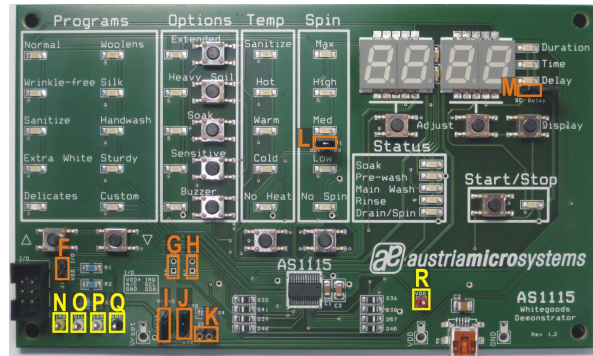


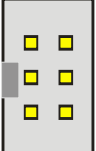
Figure 3: Board Description – Jumper and Measurement Points

Connector Description

Label	Name	Description	Info
A	VDD	Power Supply Connectors for VDD and Ground.	+2.7V to +5.5V
B	GND		
C	USB	Mini USB 5-pin Connector	Supplies the AS1115 with 5V. Connect to a standard USB port.
D	I / O	Interface Connector	See Interface Connector Description below
E	VRSET	Reference Voltage Connector	The brightness of the display segments could be controlled via this connector.

Note: Use only the Connectors VDD “A” and GND “B” or USB Connector “C”. Never use both supply possibilities at the same time!

I/O - Interface Connector “D” Description

	Label	Name	AS1115
	A1	VDD+	Pin 19
	A2	N/C	
	A3	GND	Pin 6
	B1	IRQ	Pin 24
	B2	SCL	Pin 14
	B3	SDA	Pin 1

Jumper Description

Label	Name	Description	Info
F	VDD	Supply Jumper	 VDD Supply from Power Supply Connector “A” or “C”
			 VDD Supply from I / O Interface Connector “D”
G	A0	Self Addressing Bit 0	 Address Bit 0: logic “0”
			 Address Bit 0: logic “1”
H	A1	Self Addressing Bit 1	 Address Bit 1: logic “0”
			 Address Bit 1: logic “1”

I	VRSET	Reference Voltage Jumper	 	IN: Rset connected to Reference Voltage Connector "E" VDD: Rset connected to VDD
J	RSET	Resistor Selection Jumper	 	SMD: Rset used is R4 (20kΩ) add RSET: Rset used is "K" (User Resistor)
K	RSET	User Resistor		Connector for User Resistor
L	OPEN	Open Circuit		Remove Jumper to simulate an open circuit.
M	SC	Short Circuit		Set Jumper to simulate a short circuit.

Measurement Points Description

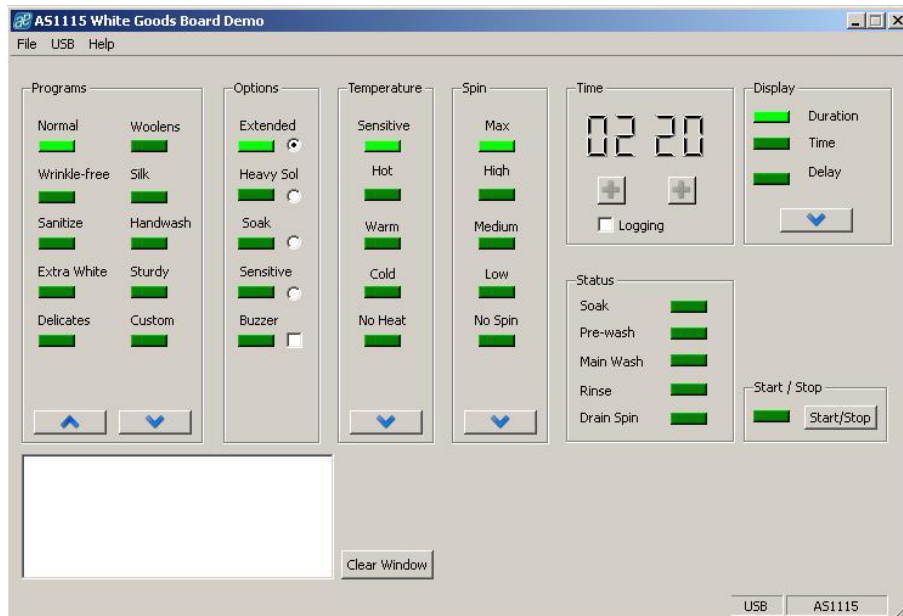
Label	Name	Description	Info
N	IRQ	Interrupt Request	Measurement Points
O	SCL	Serial Clock Input	
P	SDA	Serial Data I/O	
Q	GND	Ground	
R	VDD	Power Supply	

Software

To use the AS1115 White Goods Demoboard a controller is required. The controller can be connected to the demoboard via the I/O Connector “D”.

If no controller is available the austriamicrosystems USB box in combination with the AS1115 White Goods Demoboard software can be used as well. This USB box is needed to set-up the connection between the demoboard and the USB interface of a PC. The USB box can be ordered via <http://www.austriamicrosystems.com>.

The AS1115 Demoboard is controlled via the software and the board is only working in connection with software. The condition of the LED's (ON or OFF) or the different buttons can be triggered via the software or directly on the board.

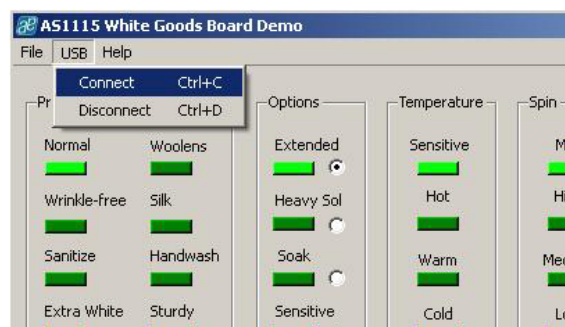


Picture 1: Software Panel

Note:

As a first step make sure that the hardware connection between the PC and the Demoboard via the austriamicrosystems USB box is set.

The second step is to connect the software to the board. For this go to the USB menu and click on “connect” (see *Picture 2: Software Panel detail*). If the USB sign on the right lower side (see *Picture 1: Software Panel*) is turned to green the software is correct linked to the demoboard.



Picture 2: Software Panel detail

Operational sequence

1. If not present get the datasheet for the AS1115 from www.austriamicrosystems.com. Use the IC on the demoboard only with the recommended settings and values as described in the datasheet.
2. First connect the Power Supply (+2.7V to +5.5V) to the demoboard (VDD "A" and GND "B") and than power up the controller (I/O Interface "D"). To power down the system disconnect first the controller and than the Power Supply of the demoboard.
3. For the data format of the I²C interface please see the datasheet of the AS1115.

Have fun using the demoboard. If there are questions do not hesitate to contact us. See contact information at the end of the application note.

Layout of the demoboard

Board schematics and layout

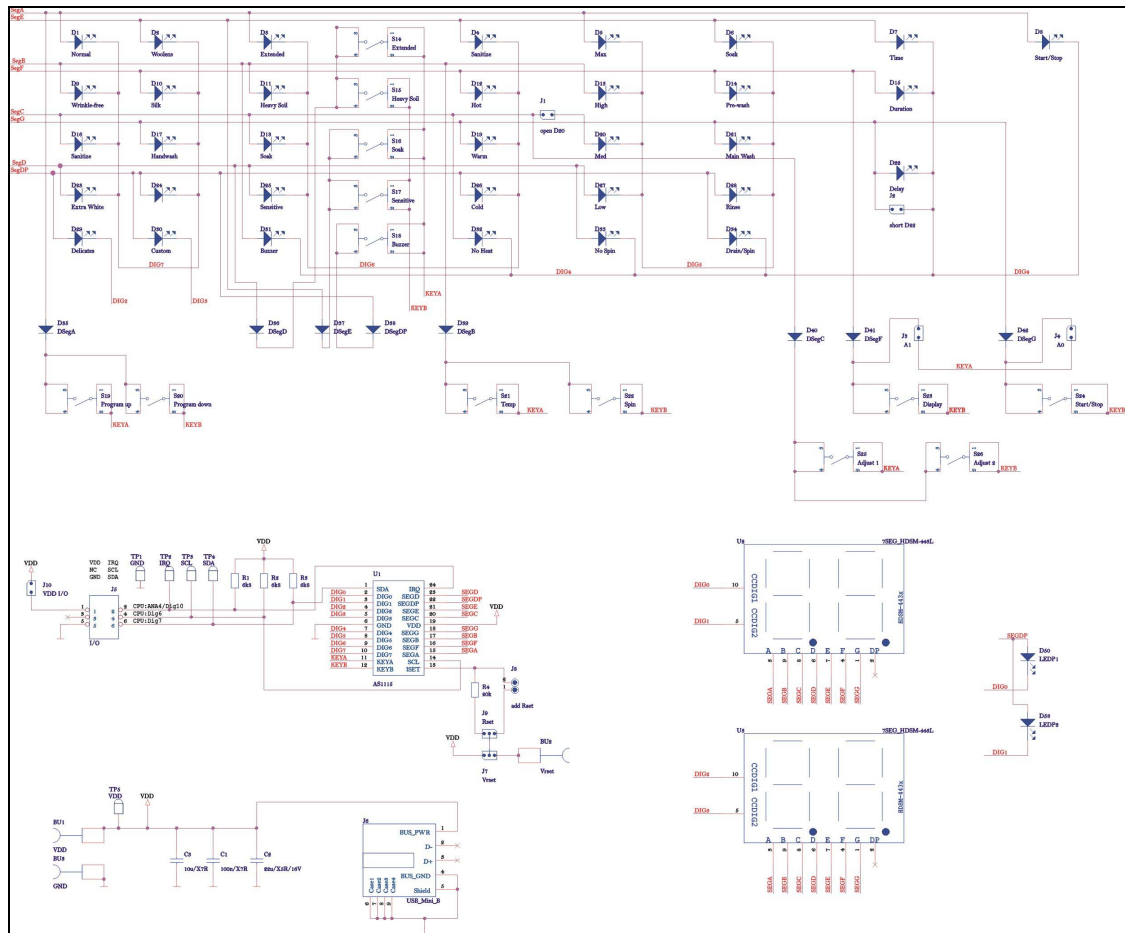


Figure 3: Schematics

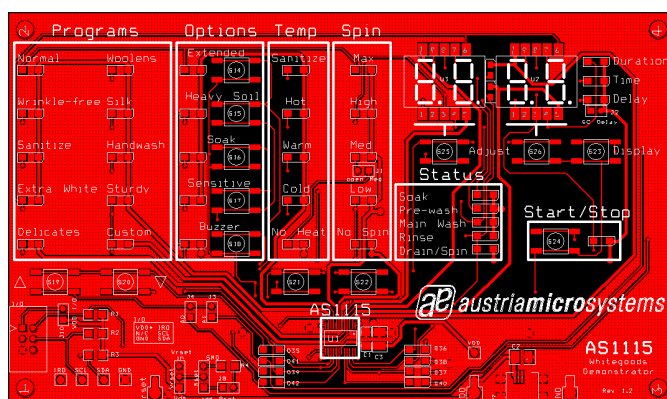


Figure 4: Top view

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