

QUICK START MANUAL

SSI2USB Adapter



Sample: SSI2USB Adapter DB15 (VA01) (SSI Encoder: UCD-SHPPP-PPPP-L100-CRW)



Device Connection



▶ 1. Connect the encoder to the Terminal block.

- 2. Plug the Terminal block into the SSI2USB Adapter.
- ▶ 3. Plug the USB port to a PC.
- ▶ 4. Install the interface software in the PC.

POSITAL

Software Installation



1. Click to download the instruction on the Adapter box.

2. Click to download the interface software. Easy to install.

POSITAL

Pin Assignment



- ▶ 1. White pin to terminal 12. It is the GND level.
- 2. Grey pin to terminal 9. It is SSI DAT+.
- ≥ 3. Green pin to terminal 10. It is SSI CLK+.
- ▶ 4. Yellow pin to terminal 2. It is SSI CLK-.
- 5. Brown pin to terminal 5. It is the Sensor Power Supply.
- ▶ 6. Pink pin to terminal 1. It is SSI DAT-.
- **7**. Blue pin to terminal 4. It is Preset/Out1.
- ▶ 8. Red pin to terminal 11. It is Direction/Out2.



Connect

Select USB Device 2 s200000 Connect 3 1 Scan Devices Reset 4	Power SSI Device © External © Internal (+5V) © Internal DCDC (+12V) Power ON	1. Click to scan USB devices.
SSI Parameter SSI Mode SSI_Binary SSI Clock Frequency 8 MHz P	Output 1 Output 2 Output 3 C High / Ub C High / Ub C High / Ub © Open Open Open C Low / GND C Low / GND C Low / GND	2. Choose device in the pull-dov
Measurement Single Sample MT Bits MT Bits 13 Bit Continuous Sample Display as Hex Batch Sample 31	sST Bits 0 0 24 23 16 15 8 7 0	3. Click to connect.
1 connected device(s) found.		4. Click to reset all the settings

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wn menu.



Power Supply Mode & SSI Parameter

SSIBox			
Select USB Device S2U00000 Scan Devices Reset	Power SSI Device C External C Internal (+5V) I Tinternal DCDC (+12V)	Power ON 2	1. Choose the power supply mode
SSI Parameter SSI Mode SSI_Binary • 3 SSI Clock Frequency 1 MHz • 4	Output 1 C High / Ub Open C Low / GND	put 2 [•] High / Ub [•] Open [•] Low / GND [•] Low / GND	2. Click to power on the encoder.
_ Measurement	POSITAL FRABA		3. Choose SSI mode between Bina
ST Bits 12 Bit Single Sample MT MT Bits 13 Bit Continuous Sample Display as Hex Batch Sample	Bits S	O O	▲ 4. Choose SSI Clock Frequency in
History 1 connected device(s) found. 1 connected device(s) found. Connected to device 'SSI2USB', serial 'S2U00000'. Powermode of device is set to PWR_OFF,	24 23 16 1	5 8 7 0	

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ry and Gray.

the pull down menu.



Measurement

SSIBox			
Select USB Device S2U00000 Image: Comparison of the sect of th	Power SSI Device C External C Internal (+5V) C Internal DCDC (+12V)	Power OFF	▶ 1. Choose ST Bits.
SSI Parameter SSI Mode SSI Clock Frequency 1 MHz	Output 1 C High / Ub C Open C Israe (CND	Output 3 h / Ub C High / Ub en C Open	
	POSITAL FRABA		2. Choose MT Bits.
Measurement		<u>.</u>	3. Click on to display as Hex.
2 MT Bits 13 Bit Continuous Sample 5 3 Display as Hex Batch Sample History	11 24 23 16 15	8 7 0	▲ 4. Single Sample.
1 connected device(s) found. Connected to device 'SSI2USB', serial 'S2U00000'. Powermode of device is set to PVM_OFF. Switching output 1 to OUT_OPEN. Switching output 2 to OUT_OPEN. Switching output 3 to OUT_OPEN. Powermode of device is set to PVMR_INTERNAL_DCDC. Powermode of device is set to PVMR_OFF. Switching output 1 to OUT_OPEN. Switching output 1 to OUT_OPEN. Switching output 2 to OUT_OPEN. Switching output 3 to OUT_OPEN. Switching output 3 to OUT_OPEN. Powermode of device is set to PVWR_INTERNAL_DCDC.		E	▶ 5. Continues Sample
12			



Disp	lay
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SIBox			
Select USB Device S2U00000 Isconnect Scan Devices Reset	Power SSI Device C External C Internal (+5 C Internal DCD	V) C (+12V) Powe	r OFF
SSI Parameter SSI Mode SSI_Binary SSI Clock Frequency 1MHz	Output 1 C High / Ub Open C Low / GND	Output 2 C High / Ub G Open C Low / GND	Output 3 C High / Ub Open C Low / GND
Į	POSITAL		
Measurement ST Bits 12 Bit Single Sample 1 MT Bits 13 Bit Display as Hex Batch Sample 31	Bits 6477	ST Bits 2 16 15 8	84 3 7 0

- **1**. Displays the MT position.
- 2. Displays the ST position.
- ≥ 3. Display History messages.



Preset/Out1 Function

Select USB Device	Power SSI Device		
S2U00000 Disconnect	C External		
	C Internal (+5V)	0	1
Scan Devices Reset	Internal DCDC	(+12V) Powe	r OFF
SSI Parameter	Output 1	Output 2	Output 3
SSI Mode SSI_Binary 👻	1 💽 High / Ub	C High / Ub	C High / Ub
	2 C Open	Open	Open
SSI Clock Frequency 1 MHz	C Low / GND	C Low / GND	C Low / GND
	FRABA		
Measurement	FRABA	ST Bits	
Measurement ST Bits 12 Bit Single Sample		ST Bits	0
Measurement ST Bits 12 Bit Single Sample MT Bits 13 Bit Continuous Sample	MT Bits	ST Bits	0
Measurement ST Bits 12 Bit Single Sample MT Bits 13 Bit Continuous Sample Display as Hex Batch Sample	MT Bits	ST Bits	0
Measurement ST Bits 12 Bit Single Sample MT Bits 13 Bit Continuous Sample Display as Hex Batch Sample	MT Bits 0	ST Bits	O 3 7 0
Measurement ST Bits 12 Bit Single Sample MT Bits 13 Bit Continuous Sample Display as Hex Batch Sample Story	MT Bits O 1 24 23	ST Bits	0 3 7 0
Measurement ST Bits 12 Bit	MT Bits O 31 24 23	ST Bits	O 3 7 0
Measurement ST Bits 12 Bit Single Sample MT Bits 13 Bit Continuous Sample Display as Hex Batch Sample 3 istory Switching output 1 to OUT_HIGH_UB. 3 Switching output 1 to OUT_HIGH_UB. Switching output 1 to OUT_OPEN. 3	MT Bits O 31 24 23	ST Bits	0 3 7 0
Measurement ST Bits 12 Bit Single Sample MT Bits 13 Bit Continuous Sample Display as Hex Batch Sample Switching output 1 to OUT_HIGH_UB. Switching output 1 to OUT_OPEN.	MT Bits O	ST Bits	0
Measurement ST Bits 12 Bit Single Sample MT Bits 13 Bit Continuous Sample Display as Hex Batch Sample Switching output 1 to OUT_HIGH_UB. Switching output 1 to OUT_HIGH_UB. Switching output 1 to OUT_HIGH_UB. Switching output 1 to OUT_OPEN.	MT Bits O 31 24 23	ST Bits	0 3 7 0
Measurement ST Bits 12 Bit Single Sample I MT Bits 13 Bit Continuous Sample I Display as Hex Batch Sample 3 Switching output 1 to OUT_HIGH_UB. Switching output 1 to OUT_OPEN. Switching output 1 to OUT_OPEN. Switching output 1 to OUT_OPEN. Switching output 1 to OUT_OPEN. Switching output 1 to OUT_OPEN. Switching output 1 to OUT_OPEN. Switching output 1 to OUT_OPEN. Switching output 1 to OUT_OPEN. Switching output 2 to OUT_LOW_GND. Switching output 2 to OUT_LOW_GND. Switching output 2 to OUT_LOW_GND. Switching output 2 to OUT_LOW_GND. Switching output 2 to OUT_LOW_GND. Switching output 2 to OUT_LOW_GND. Switching output 2 to OUT_LOW_GND. Switching output 2 to OUT_OPEN. Switching output 3 to OUT_OPEN.	MT Bits O 31 24 23	ST Bits	0

▶ 1. Apply high signal on Out1.

2. Then remove the high signal from Out1.

The present position will be set to the initial position. This is the preset function.



Direction / Out2 Function

Select USB Device	Power SSI Device	
S2LI00000	C External	
	C Internal (159)	
Scan Devices Reset	 Internal DCDC (+12V) 	Power OFF
SSI Parameter	Output 1 Output 2	Output 3
SSI Mode	C High / Ub 1 🕞 Hig	n/Ub C High/Ub
loss_bindiry	© Open 2 C Op	en (Open
SSI Clock Frequency		
	LOW / SND	
ST Bits 12 Bit Single Sample	T Bits ST Bit	4090
Display as Hex Batch Sample Batch Sample		
Display as Hex Continuous Sample	24 23 16 15	8 7 0
Continuous Sample Display as Hex Batch Sample istory Switching output 1 to OUT_LOW_GND. Switching output 1 to OUT_OPEN. Switching output 2 to OUT_LOW_GND. Switching output 2 to OUT_HIGH_UB.	24 23 16 15	8 7 0
Continuous Sample Display as Hex Batch Sample Switching output 1 to OUT_LOW_GND, Switching output 1 to OUT_OPEN, Switching output 2 to OUT_LOW_GND, Switching output 2 to OUT_LOW_GND, Switching output 2 to OUT_OPEN, Switching output 2 to OUT_HIGH_UB, Switching output 1 to OUT_HIGH_UB, Switching output 1 to OUT_HIGH_UB,	24 23 16 15	8 7 0
Display as Hex Continuous sample Display as Hex Batch Sample Bistory 3: Switching output 1 to OUT_LOW_GND, Switching output 1 to OUT_OPEN. Switching output 2 to OUT_LOW_GND. Switching output 2 to OUT_LOW_GND. Switching output 2 to OUT_OPEN. Switching output 2 to OUT_OPEN. Switching output 1 to OUT_OPEN.	24 23 16 15	8 7 0
Continuous Sample Display as Hex Batch Sample Switching output 1 to OUT_LOW_GND, Switching output 1 to OUT_OPEN. Switching output 2 to OUT_OPEN. Switching output 2 to OUT_HIGH_UB. Switching output 1 to OUT_OPEN. Switch	24 23 16 15	8 7 0

1. As long as there is high signal applied on Out2, the direction is inverted.

2. To restore default direction, remove the high signal on Out2.

This is the function of changing Direction with the Out2 pin.



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