

Application Note

AN0015

SK5221 HID over I2C Keyboard Controller Test Setup Procedure

Associated Part Family: SK5221

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1 Overview

This document is to describe the test setup of SK5221 assembly using Sprintek SK6100 USBtol2C Convertor board and Sprintek SerialTerminal Software Tool.

2 Hardware Connection

SK6100 USBtoI2C Converter Board is used to convert I2C reports to USB serial virtual comport data stream. A 5-pin connection can be wired to the UTB (under test board). As the label shows, the 5 pins are laid out as following. V – VCC, T – nINT, C – SCL, D – SDA, G – GND

Step 1: Connect converter board to the UTB via 5-pin I2C cable.



Step 2: Connect the SK6100 USBtoI2C Converter Board to PC's USB port

3 Software Setup

Step 1: Run Sprintek SerialTerminal Software.

Step 2: Open virtual comport.

🕅 Sprintek SerialPort Terminal 1.2	-	
Application Started at 7/22/2019 4:11:17 PM	I2C Mouse Tester	Serial Mouse Tester
	HID over I2C Keyboard	HID over I2C Mouse
	SMBUS Keyi	coard Mouse
Send <u>D</u> ata:	Send	E <u>x</u> it
Serial Port Settings Data Mode COM Port: Baud Rate: Parity: Data Bits: Stop Bits: COM4 9600 None [8] One Hex	<u>O</u> pen Port	About
COM4 Notes: This software can be used with Sprintek products only Sprintek - The Leader of Human Input Device Product	cts	

Step 3: Make sure Hex mode is selected under "Data Mode" and click "Open Port." Send "86 04 ff 01" to initialize the SK6100.

🙀 Sprintek SerialPort Terminal 1.2	-	
Application Started at 7/22/2019 10:27:15 AM 86 04 FF 01 87 03 00	I2C Mouse Tester	Serial Mouse Tester
	HID over I2C Keyboard	HID over I2C Mouse
	SMBUS Keyt	ooard Mouse
	Sand	Evit
Send Data: 86 04 ff 01	Send	EXIL
Serial Port Settings Data Mode COM Port: Baud Rate: Parity: Data Bits: Stop Bits: COM4 9600 None 8 One Text Image: Hex Image: Hex Image: Hex Image: Hex Image: Hex	<u>C</u> lose Port	<u>About</u>
Notes: This software can be used with Sprintek products only Sprintek - The Leader of Human Input Device Product	ts	

Step 4: Press a key and receive key events to verify the connection Connect UTB of SK5221 to the converter board.

🔀 Sprintek SerialPort Terminal 1.2	_	
Application Started at 7/22/2019 10:30:01 AM 86 04 FF 01 87 03 00 AF 0E 03 AF 05 00 00 00 AF 0E 00 0B 00 01 00 00 06 00 00 00 00 AF 0E 00 0B 00 01 00 00 00 00 00 00 00 00	I2C Mouse Tester	Serial Mouse Tester
	HID over I2C Keyboard	HID over I2C Mouse
	SMBUS Key	board Mouse
Send <u>D</u> ata: <u>86 04 ff 01</u>	Send	E <u>x</u> it
Serial Port Settings Data Mode COM Port: Baud Rate: Parity: Data Bits: Stop Bits: COM4 9600 None 8 One	<u>C</u> lose Port	About
Notes: This software can be used with Sprintek products only Sprintek - The Leader of Human Input Device Product	ts	

Step 5: Click button "HID over I2C keyboard" to test keyboard function

📕 HID ove	r I2C Ke	yboard	Tester																		-		×
Delay Ti Repeat F	me: [Rate: [Virt Kej	ual Key / Scan	y Code: Code:	4] Disab	le Typ	pemati	C		Cle	ar		<u>C</u> lose	
Back	d A • DO) prwa Re rd	WN] [qa efres s	ind Q - U	price and Bo ma	ok Sea	N] (z and rc N	d Z - UP Mail Co u	(<mark>z and Z</mark> My Cal omp ati	cul N	ext P	x - UP) revio us	Stop	Play Pause	WN] [w a	Vol	- UP)[w I Vo De	and W	- DOWI	N] [s and NumL	<mark>S-UP](s</mark> ock C	and S - apsLock	DOWN]	(d and Illock
	FnF1	FnF2	FnF3	FnF4	FnF5	FnF6	FnF7	FnF8	FnF9	FnF10	FnF1	1 FnF	12	КА	KB	КС							
	F13	F14	F15	F16	F17	F18	F19	F20	F21	F22	F23	F24	4				Intl2 (Kana Hangu	Int1 (Ro)	Intl3 (Yen)	Lang2 (Hanja Kanji)	Intl4 (Conv ert)	Intl5 (NonC onvert	Lang1 (Hang uel/En
Esc	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	2 5	Print Scree	Scroll Lock	Pause		Clear	F	Copy Play	Attn Sysre q	CrSel	ExSel
~`	11	@2	#3	\$4	% 5	^6	& 7	•8	(9)	0	-	+=	Ba	ackspace	e	Ir	nsert H	ome	Page Up	Num Lock	1	•	•
Tab	(2 1	v i	E R	Т	Y	U	1	0	Ρ	{[}]		17		D	elete	End	Page Down	7 Home	8 Up	9 PgUp	
Caps L	.ock	A	s	D	F	G	н	J	ĸ				#~	Ent	er					4 Left	5	6 Right	*
LShift	1	1 2	z)	< c	V	В	N	м	<.	>.	?/	Γ	R	Shift				Up		1 End	2 Down	3 PgDn	5.1.1
LCtr	rl	LWin	LAJt			SPAC	E		R	Alt R	Win 4	Apps	RCtrl				Left D	lown	Right	0	ns	. Del	Enter



Step 6: Click button "HID over I2C Mouse" to test mouse function

4 History

Version	Date	Description
V1.00	2019-07-23	Initial release