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Starter Kit Hardware A33G527VQN v1.00

User Manual

Version 1.00

May. 08, 2023

*For additional information or inquiry, please contact ABOV Semiconductor
or visit its website at www.abov.co.kr.*

Revision History

Date	Version	Description
Jun. 28, 2019	1.0.0	Document created.
May. 08, 2023	1.00	Changed the format of the revision number to "X.YZ" according to internal policy.

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Chapter 1. Starter kit board overview

Starter kit board exterior

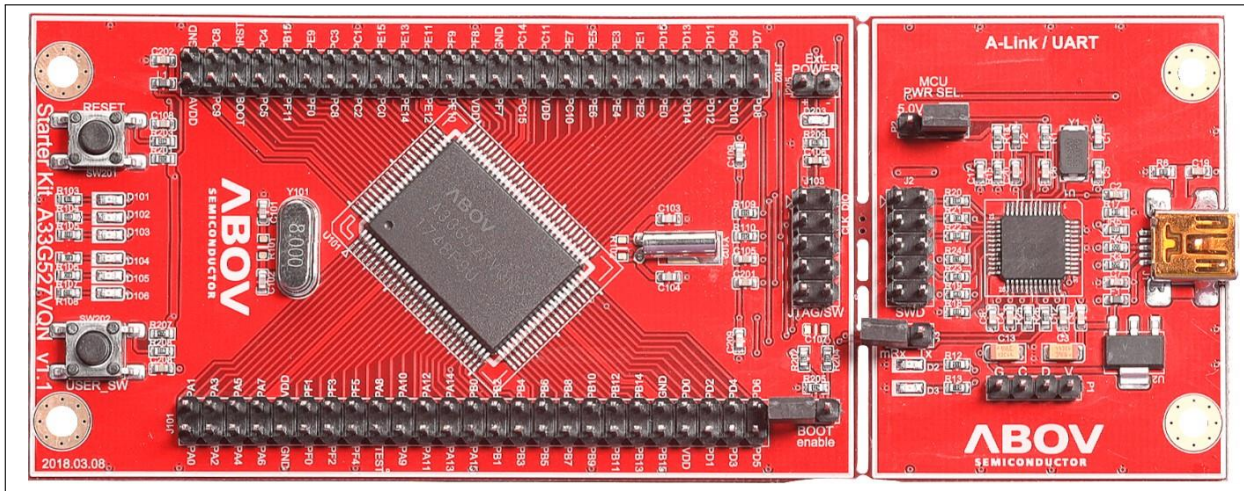


Figure 1: Starter Kit board

Starter kit board features

Table 1: Main features of starter Kit board

Main features	Specifications	Remarks
MCU	A33G527	ARM CORTEX-M3
Operating clock	8 MHz/32.768 KHz	Crystal Main/Sub
ROM	384 KB/32 KB flash ROM	Code / Data
RAM	24 KB	
Communication port	USB 2.0	Mini USB Type B 5-pin
Debugging port	SWD / JTAG	10-pin Connector
Input buttons	1 reset & 1 event input	TACT Switch

Chapter 2. A-Link part

USB connector (mini USB type B)

- PC USB interface (Debug Keil, IAR ..)
- CMSIS-DAP (Debug)
- COM port

J103 (box header): JTAG pins

Table 2: JTAG pin description

V-Sense	1	2	SWDIO/TMS
GND	3	4	SWCLK/TCK
GND	5	6	NC/TDO
NC	7	8	NC/TDI
GND	9	10	nRESET




J2 (box header): SWD connector

Table 3: A-Link SWD pin description

V-Sense	1	2	SWDIO
GND	3	4	SWCLK
GND	5	6	NC
NC	7	8	NC
GND	9	10	nRESET



P2: MCU power selector

Table 4: Power selection switch description

	5.0V
	3.3V
	External Power

J3: USB to UART connection

Table 5: USB to UART description

JP2	Pin	Connection
	Short	MCU RXD0 ← PC TXD
	Open	MCU RXD0 Open

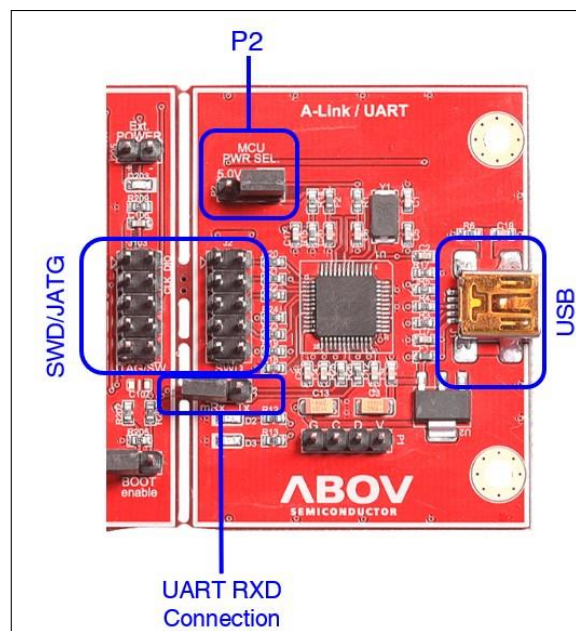


Figure 2: A-Link section

Chapter 3. Device part

3.1 Power/boot mode selector & switch

JP1: External power (not used)

Table 6: JP1 description and connection

JP1	Pin	Connection
	VDD	+3.3 ~ 5.0V
	GND	0V

JP2: Mode selector (boot/normal) pins

Table 7: JP2 boot mode selector

JP2	Pin	Connection
	Short	Boot mode
	Open	Normal mode

S1 & S2: switches

Table 8: S1 & S2 description and function

Switch	Function
S1	nRESET / PC6
S2	PB1

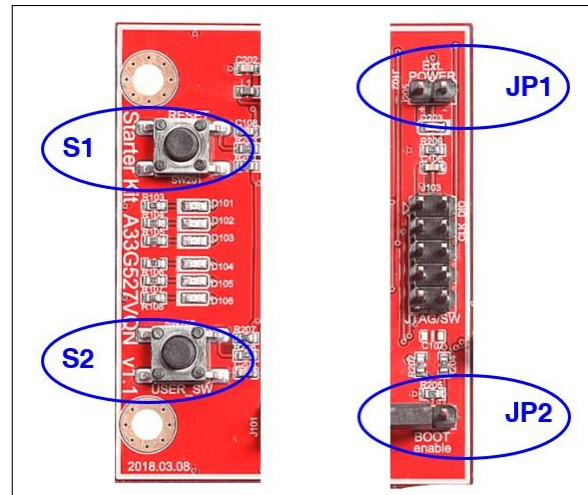


Figure 3: Power/boot mode and switch

3.2 LED display (D101 – D106)

LED schematic

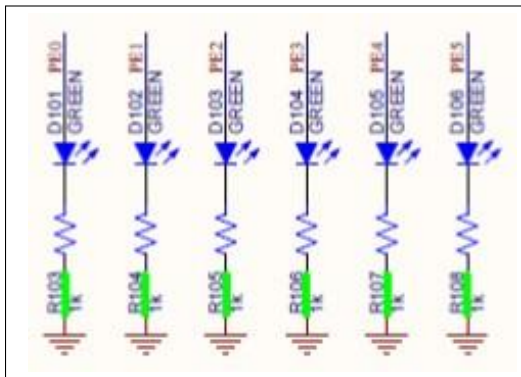


Figure 4: LED schematic

LED pin assignment

Table 9: LED pin description

LED name	PORT
D101	PE0
D102	PE1
D103	PE2
D104	PE3
D105	PE4
D106	PE5

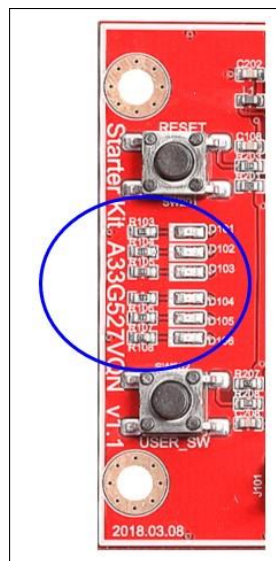


Figure 5: LED display

3.3 Pin assignment

Pin color legend

 VDD	 PC
 GND	 PD
 PA	 PE
 PB	 PF

CN1

1	PA0/AN0/AVREF	PA1/AN1	2
3	PA2/AN2	PA3/AN3	4
5	PA4/AN4	PA5/AN5	6
7	PA6/T0C/AN6	PA7/T1C/AN7	8
9	GND	VDD	10
11	PF0/AN8	PF1/AN9	12
13	PF2/AN10	PF3/AN11	14
15	PF4/AN12	PF5/AN13	16
17	TEST	PA8/T2C	18
19	PA9/T3C	PA10/T4C	20
21	PA11/T5C	PA12/T6C	22
23	PA13/T7C	PA14/T8C/AN14	22
25	PA15/T9C/AN15	PB0/T0O	24
27	PB1/T1O	PB2/T2O	28
29	PB3/T3O	PB4/T4O	30
31	PB5/T5O	PB6/T6O	32
33	PB7/T7O	PB8/T8O	34
35	PB9/T9O	PB10/SSO	36
37	PB11/SCK0	PB12/MOSI0	38
39	PB13/MISO0	PB14/SCL0	40
41	PB15/SDA0	GND	42
43	VDD	PD0/PWM0	44
45	PD1/PWM1	PD2/PWM2	46
47	PD3/PWM3	PD4/PWM4	48
49	PD5/PWM5	PD6/PWM6	50



CN2

100	AVDD	AGND	99
98	PC9/TXD0	PC8/RXD0	97
96	PC7/BOOT	PC6/nRESET	95
94	PC5	PC4/TDO	93
92	PF11	PC12/STBYO	91
90	PC13/CLK0	PE9/SXOUT	89
88	PE8/SXIN	PC3/TCK	87
86	PC2/TMS	PC1/TDI	85
84	PC0/nTRST	PE15/TraceCLK	83
82	PE14/TraceD0	PE13/TraceD1	81
80	PE12/TraceD2	PE11/TraceD3	79
78	PF10	PF9	77
76	VDD	PF8	75
74	PF7	GND	73
72	PC15/XTALI	PC14/XTALO	71
70	VDD	PC11/TXD2	69
68	PC10/RXD2	PE7/PWMB7/TXD3	67
66	PE6/PWMB6/RXD3	PE5/PWMB5	65
64	PE4/PWMB4	PE3/PWMB3	63
62	PE2/PWMB2	PE1/PWMB1	61
60	PE0/PWMB0	PD15/SDA1	59
58	PD14/SCL1	PD13/TXD1	57
56	PD12/RXD1	PD11/MISO1	55
54	PD10/MOSI1	PD9/SCK1	53
52	PD8/SS1	PD7/PWM7	51

Figure 6: Pin assignment

Korea**Regional Office, Seoul**

R&D, Marketing & Sales
8th Fl., 330, Yeongdong-daero,
Gangnam-gu, Seoul,
06177, Korea

Tel: +82-2-2193-2200
Fax: +82-2-508-6903
www.abovsemi.com

Domestic Sales Manager

Tel: +82-2-2193-2206
Fax: +82-2-508-6903
Email: sales_kr@abov.co.kr

HQ, Ochang

R&D, QA, and Test Center
93, Gangni 1-gil, Ochang-eup, Cheongwon-
gun,
Chungcheongbuk-do, 28126, Korea

Tel: +82-43-219-5200
Fax: +82-43-217-3534
www.abovsemi.com

Global Sales Manager

Tel: +82-2-2193-2281
Fax: +82-2-508-6903
Email: sales_gl@abov.co.kr

China Sales Manager

Tel: +86-755-8287-2205
Fax: +86-755-8287-2204
Email: sales_cn@abov.co.kr

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