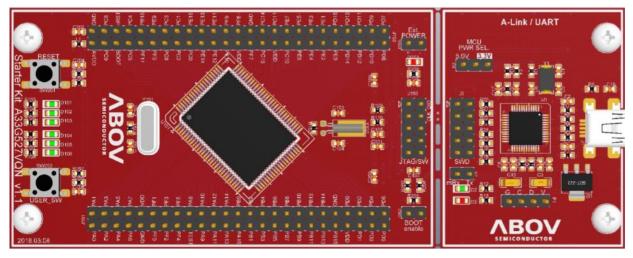**Application Note**

How to use A33G527VQN v1.1 Starter Kit Board

2018.4.27

Starter Kit Board Description

[Figure1. Starter Kit board]

Contents	Main Features	Note
MCU	A33G527	ARM CORTEX-M3
Operating clock	8MHz/32.768KHz	Crystal Main/Sub
ROM	384kB/32KB flash ROM	Code / Data
RAM	24KB	
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

[Table1. Main features of Starter Kit board]

Starter Kit board (A-Link)

- **USB Connector (Mini USB type B)**
  - **PC USB interface (Debug Keil, IAR ..)**
  - **CMSIS-DAP (Debug)**
  - **COM Port**

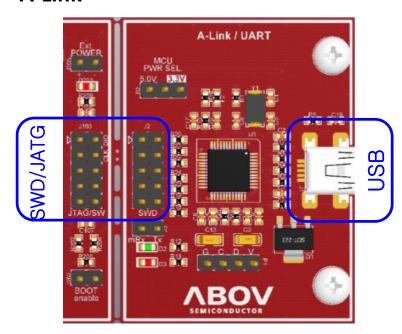- **J103 (Box Header) : JTAG/SWD Connector**

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

[Table2. JTAG pin description]

- **J2 (Box Header) : SWD Connector**

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

[Table3. A-Link SWD Pin Description]

- **A-Link**

[Figure2. A-Link section]

Confidential

Starter Kit board (A-Link)

- **P2 : MCU Power Selector**
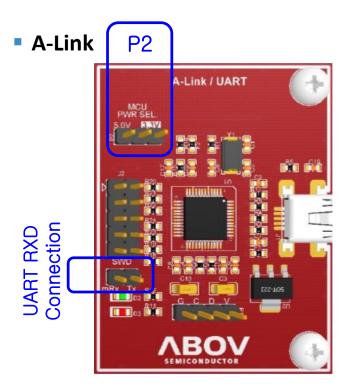
	5.0V
	3.3V
	External Power

[Table4. Power Selection switch description]

- **J3 : USB to UART Connection**

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

[Table5. USB to UART description]

- **A-Link**

[Figure3. A-Link section]

Power, Boot Mode and Switch

▪ JP1 : External Power (Not used)

JP1	Pin name	Connection
🔲🔲 + −	VDD	+3.3 ~ 5.0V
	GND	0V

[Table6. JP1 description and connection]

▪ JP2 : Mode select(Boot/ Normal) pins
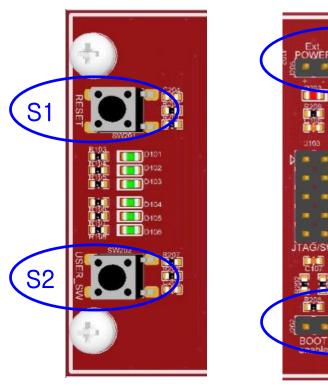
JP2	Pin	Connection
🔲	Short	Boot mode
🔲🔲	Open	Normal mode

[Table7. JP2 Boot Mode selector]

▪ S1, S2 : Switch

Switch	Function
S1	**nRESET** / PC6
S2	PB1

[Table8. S1, S2 description and Function]
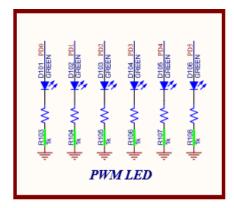
[Figure4. Power, Boot Mode and Switch section]

LED display
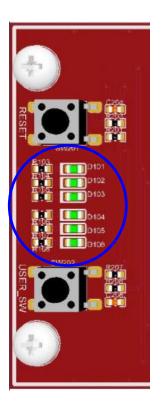
LED : D101~106

[Figure5. LED Schematic]

LED name	PORT
D101	PD0
D102	PD1
D103	PD2
D104	PD3
D105	PD4
D106	PD5

[Table9. LED pin description]
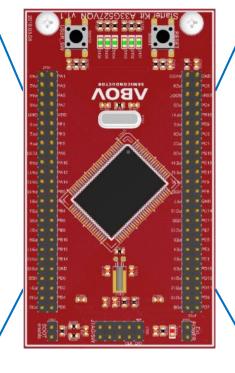
[Figure6. LED Display]

Pin Header
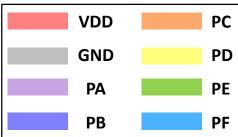
1	PA0/AN0/AVREF	PA1/AN1	2
3	PA2/AN2	PA3/AM3	4
5	PA4/AN4	PA5/AN5	6
7	PA6/T0C/AN6	PA7/T1C/AN7	8
9	GND	VDD	10
11	PF0/AN8	PF1/AN9	12
13	PF2/AN10	PF3/AN11	14
15	PF4/AN12	PF5/AN13	16
17	TEST	PA8/T2C	18
19	PA9/T3C	PA10/T4C	20
21	PA11/T5C	PA12/T6C	22
23	PA13/T7C	PA14/T8C/AN14	24
25	PA15/T9C/AN15	PB0/T0O	26
27	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/SS0	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

[Table10. CN1 description]
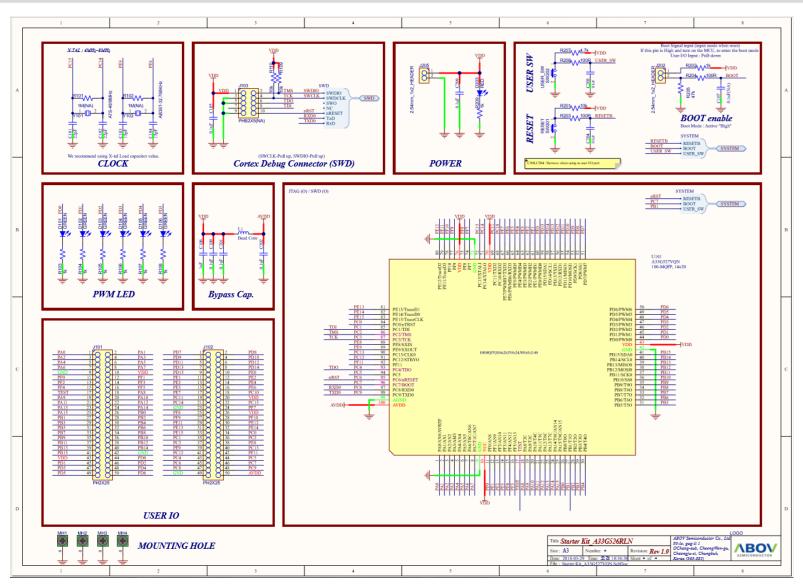
100	AVDD	AGND	99
98	PC9/TXD0	PC8/RXD0	97
96	PC7/BOOT	PC6/nRESET	95
94	PC5	PC4/TDO	93
92	PF11	PC12/STBYO	91
90	PC13/CLK0	PE9/SXOUT	89
88	PE8/SXIN	PC3/TCK	87
86	PC2/TMS	PC1/TDI	85
84	PC0/nTRST	PE15/TraceCLK	83
82	PE14/TraceD0	PE13/TraceD1	81
80	PE12/TraceD2	PE11/TraceD3	79
78	PF10	PF9	77
76	VDD	PF8	75
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

[Table11. CN2 description]

Color index:

VDD	PC
GND	PD
PA	PE
PB	PF

[Figure7. Color index information]

[Figure8. Schematic]