

N32M016	32 bit ARM Cortex-M0	64MHz	FLASH
64KB Flash	6KB SRAM	1	12bit 1Msps ADC
1 NTC	4 TIM	3	3*UART 2*I2C 2*SPI
6N LDO	150V	3	1 DMA

● CPU

— 32 ARM Cortex-M0

— 64MHz

●

— 64KByte Main Flash 10 10

— 6KByte SRAM STOP

●

— Run

— Stop TIM6 IWDG UART3 COMP SRAM IO

●

— HSI_64M RC OSC 64MHz

— LSI RC OSC 32KHz

— 1 SYSCLK HSI LSI

●

— / /

—

●

— 3 UART 4Mbps

485 UART3

— 2 SPI 16MHz

— 2 I2C 1MHz

● 1 DMA 3

●

— 32 /

— 32

●

— 1 12bits 1Msps ADC 11

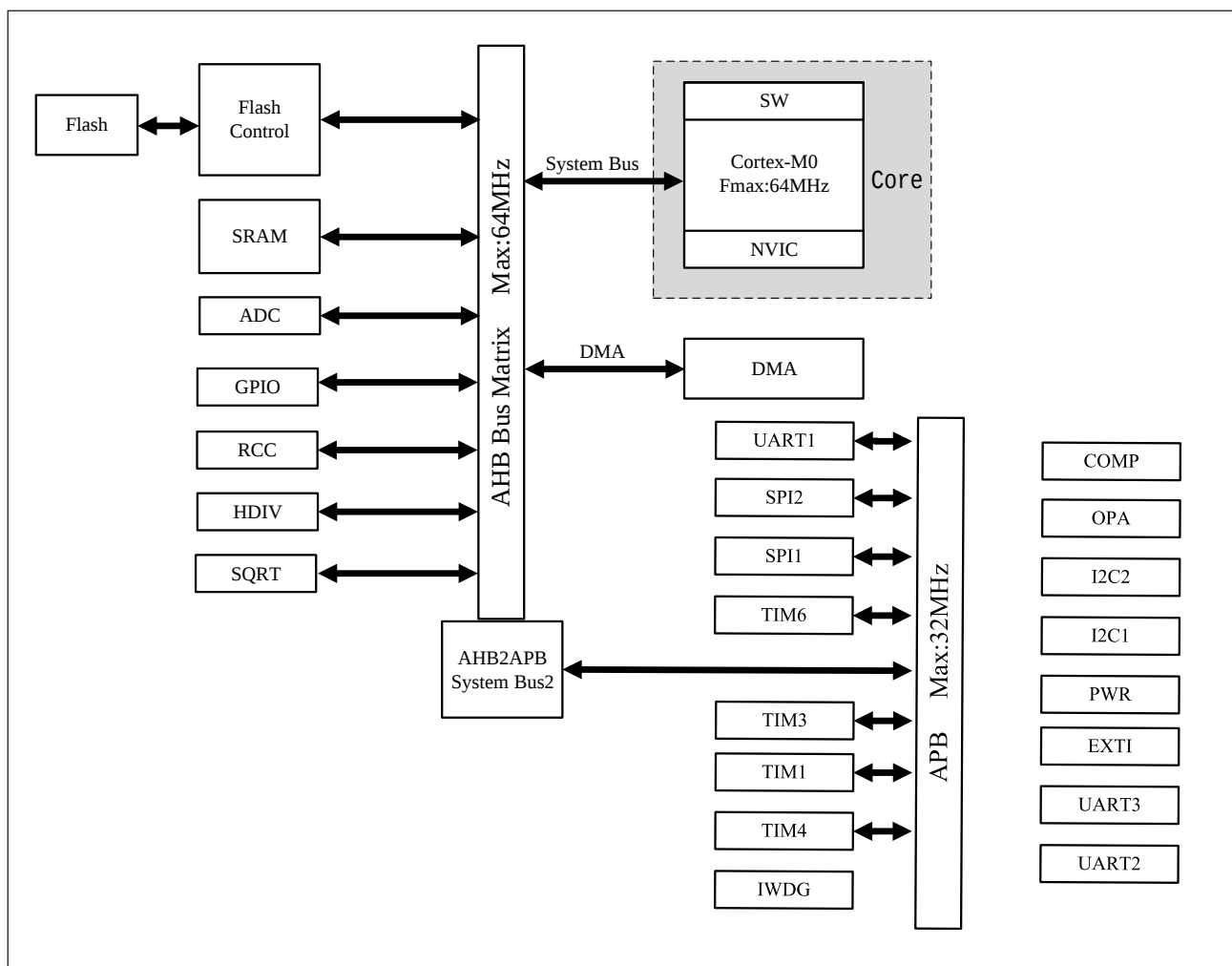
— 3 1.8V,1/2 VDDA,1/4 VDDA 32

- 1 256
- NTC
-
- (PVD)
- 21 **GPIOs.**
-
- 1 16bit / 7 4 8
- PWM
- 1 16bit 4 / /PWM
- 1 32bit 3 / /PWM
- 1 32bit
- 1x 24bit SysTick
- 1x 14bit (IWDG)
-
- SWD
- UART Bootloader
-
- WRP
- RDP L0/L1/L2
- 96 **UID** 128 **UCID**
-
- 2.0V~5.5V
- -
-
- N32M016H8Q7: 150V 6N 5V LDO
-
- QFN40 (5 x 5mm)

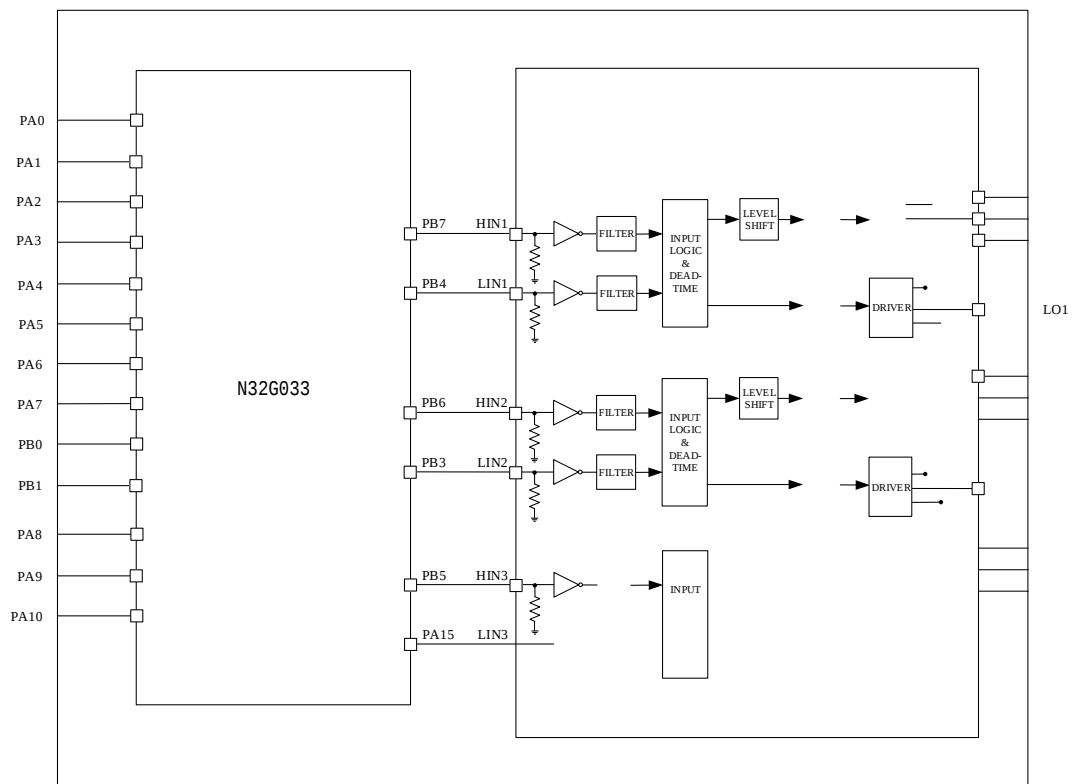
1

N32M016	N32G033x	MCU		N32G033	
N32G033		32	ARM Cortex®-M0	64MHz	64KB
Flash	6KB SRAM		AHB 1	APB 11	29
I/O		1 12	1Msps ADC	3	3
	1			UART 2	I2C 2 SPI
N32G033		-40 ℃ +105 ℃		2.0V 5.5V	
48					

1-1



1-2 N32M016H8Q7



1.1

		N32M016H8Q7
Flash	KB	64
SRAM	KB	6
CPU		ARM Cortex-M0 @64MHz
		2.0~5.5V/-
		1
	16	1
	32	1
		1

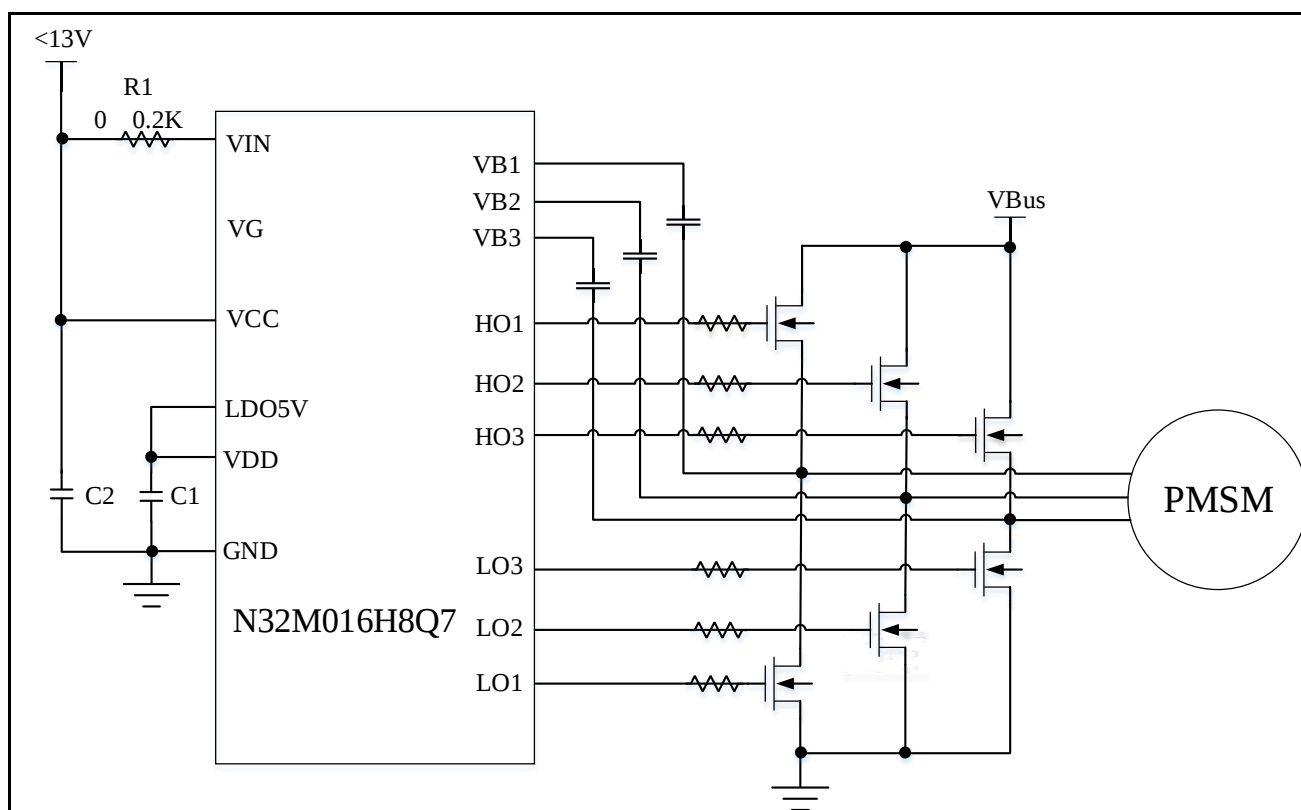
	SPI	2
	I2C	2
	UART	3
DMA		1x 3 Channel
COMP		1
		RDP/WRP
12bit ADC		10 +5 Channel
OPA		3
GPIO		21
PWM		6
		6N
		150V
LDO		5V
		QFN40

1.2

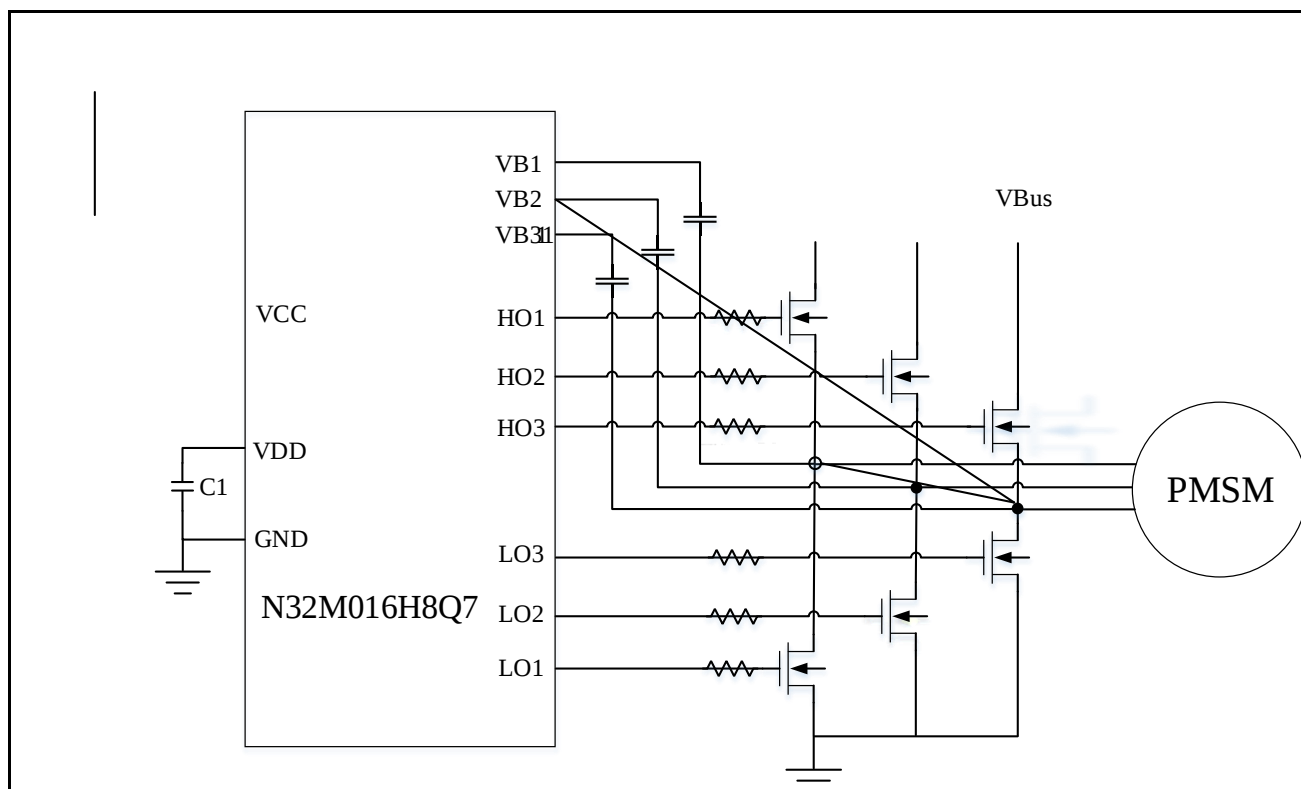
1.2.1

N32M016H8P7

1-3 N32M016H8Q7

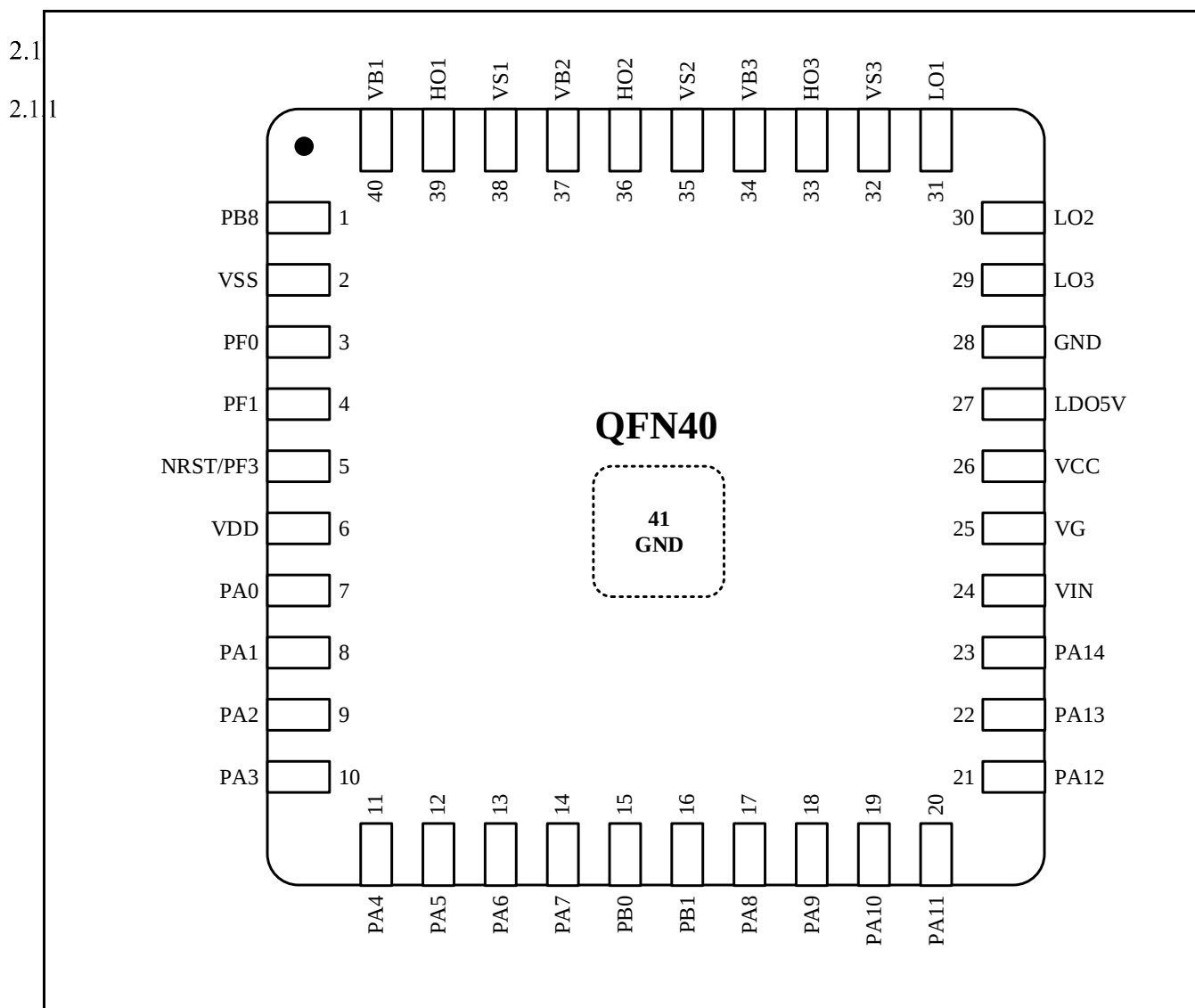


1-4 N32M016H8Q7



2

N32M016H8Q7



IO
N32M016H8Q7

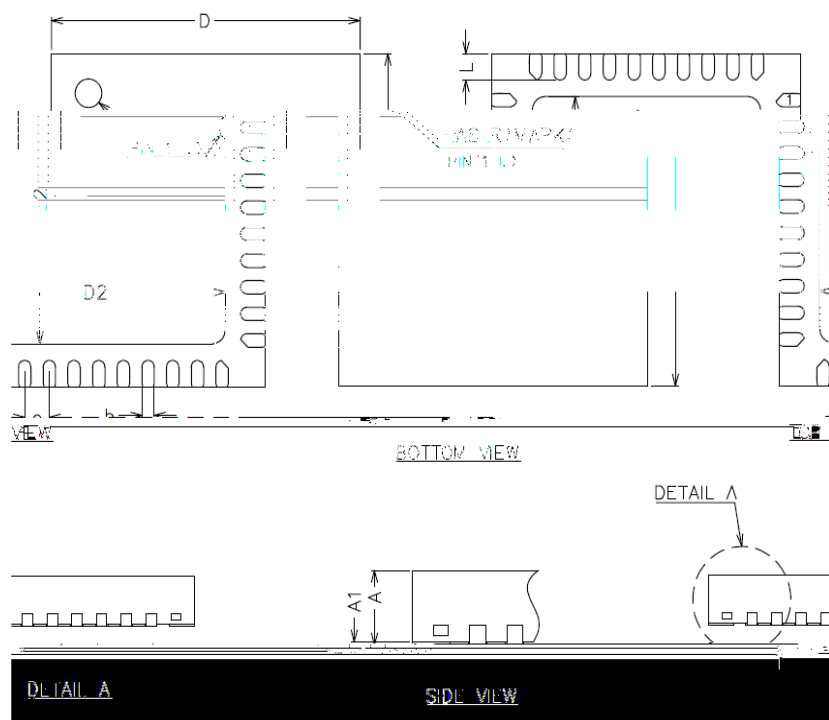
2.2	QFN40	()	(1)	I/O ⁽²⁾		
2.2.1	1	PB8	I/O	TC	I2C1_SCL, TIM1_CH1, TIM1_CH1N, TIM1_CH2, TIM1_CH2N, TIM1_CH3, TIM1_CH3N, TIM1_CH4, TIM1_CH4N, TIM3_CH4,	-
	2	VSS	S	TC	MCU	
	3	PF0	I/O	TC	I2C1_SDA, TIM3_CH1, UART1_TX, UART2_TX, UART3_TX, TIM3_ETR	OPAMP1_VINP
	4	PF1	I/O	TC	I2C1_SCL, TIM3_CH2, UART1_RX, UART2_RX, UART3_RX, TIM4_ETR	OPAMP1_INM,
	5	NRST/PF3 ⁽³⁾	I	NRST	Device reset input/internal reset output(active low)	
			I/O	TC	TIM3_CH3, TIM4_ETR, UART1_DE, UART2_DE, UART3_DE,	-
	6	VDD	S	TC	5V	
	7	PA0	I/O	TC	SPI1_SCK, UART2_RX, UART3_RX, TIM3_CH1, TIM1_CH5, TIM4_CH1, UART1_RX, COMP_OUT,	ADC_IN0, COMP_INM, OPAMP1_VINP,
	8	PA1	I/O	TC	EVENTOUT, SPI1_NSS, I2C1_SMBA, TIM3_ETR, UART3_TX, TIM3_CH2, TIM1_CH6, TIM4_CH2, SPI1_MISO, UART2_TX, UART1_TX,	ADC_IN1, COMP_INP, OPAMP1_VINP,

9	PA2	I/O	TC	UART1_TX, UART2_TX, SPI1_MOSI, TIM1_BKIN, TIM3_CH3, TIM1_CH7, TIM4_CH3, UART3_TX,	ADC_IN2, OPAMP1_VINM,
10	PA3	I/O	TC	UART1_RX, UART2_RX, TIM1_CH2, SPI1_MISO, UART3_RX	ADC_IN3, COMP_INP,
11	PA4	I/O	TC	SPI1_MISO, TIM3_CH1, TIM1_CH1, SPI1_NSS, I2C1_SCL, UART3_TX, UART1_DE, UART2_DE,	ADC_IN4, COMP_INM, OPAMP1_VINP,
12	PA5	I/O	TC	SPI1_SCK, TIM1_CH2N, TIM1_CH3, SPI1_MOSI, I2C_SDA,	ADC_IN5, COMP_INM, OPAMP1_VINM,
13	PA6	I/O	TC	EVENTOUT, SPI1_MISO, TIM3_CH1, TIM1_BKIN, UART3_TX, I2C2_SCL, COMP_OUT,	ADC_IN6, OPAMP1_VOUT,
14	PA7	I/O	TC	SPI1_MOSI, SPI2_NSS, TIM3_CH2, TIM1_CH1N, UART3_RX, I2C2_SDA,	ADC_IN7, COMP_INP, OPAMP1_VINP, OPAMP1_VOUT_R,
15	PB0	I/O	TC	TIM3_CH3, TIM1_CH2N, SPI2_SCK,	ADC_IN8, OPAMP1_VINP,
16	PB1	I/O	TC	TIM3_CH3, TIM3_CH4, TIM1_CH3N, SPI2_MOSI, SPI1_MOSI,	ADC_IN9, OPAMP1_VINM,
17	PA8	I/O	TC	TIM1_CH1, MCO, SPI2_NSS, UART1_DE, UART2_DE,	COMP_INP, OPAMP3_VINP,
18	PA9	I/O	TC	UART1_TX, TIM1_CH2, I2C1_SCL, I2C2_SCL, SPI2_SCK, UART2_TX, MCO,	COMP_INP, OPAMP3_VINM,
19	PA10	I/O	TC	UART1_RX, TIM1_CH3, I2C1_SDA,	COMP_INP, OPAMP2_VINM

3

QFN40(5x5mm)

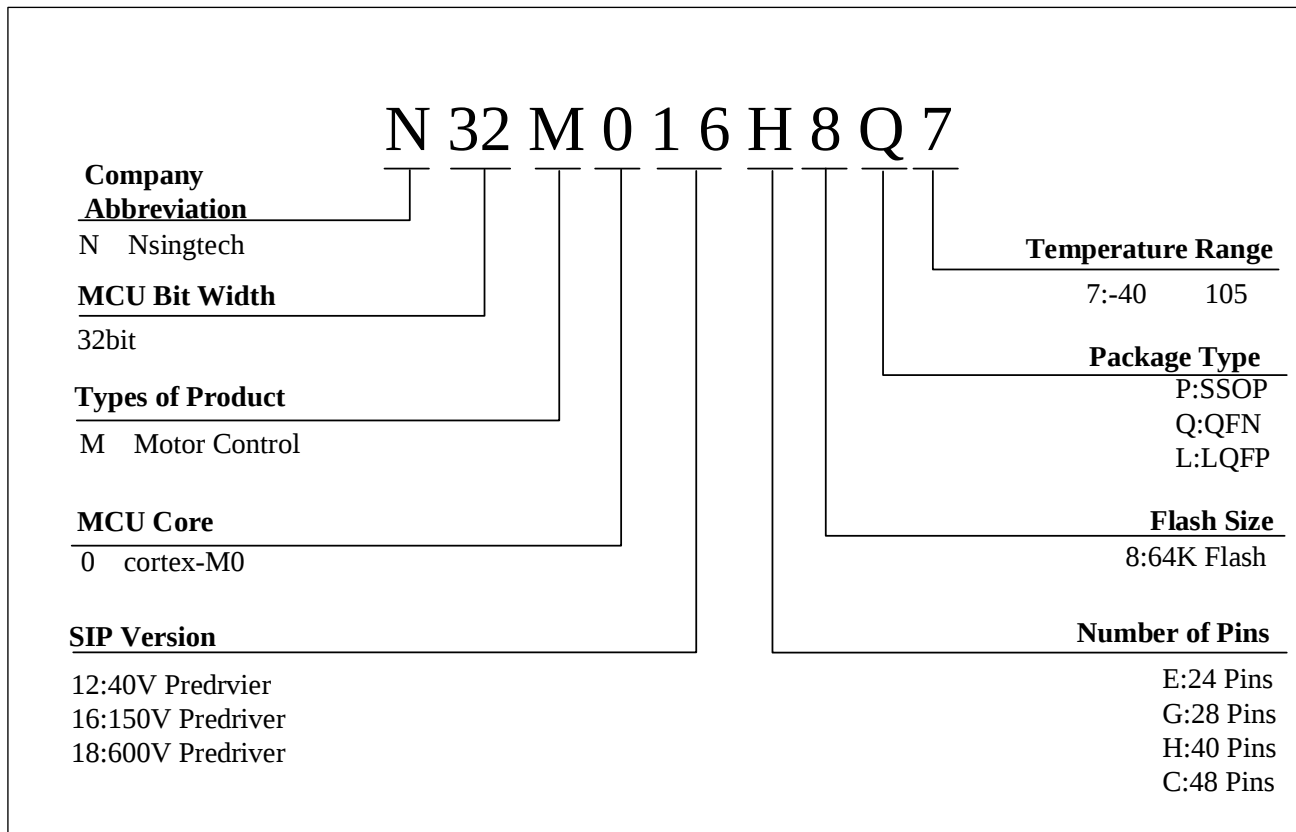
3.1



DIM	MIN	NOM	MAX
A	0.7	0.75	0.8
A1	0	0.02	0.05
b	0.15	0.2	0.25
e	0.4 BSC		
D	4.9	5	5.1
D2	3.6	3.7	3.8
E	4.9	5	5.1
E2	3.6	3.7	3.8
L	0.325	0.4	0.475

4

4-1 N32M016



4-1 N32M016

(1)			(2)	SPQ(3)	
N32M016H8Q7	QFN40	5mm *5mm	Tray	490	-

- 1.
- 2.
- 3.

5

2026.3.26	V1.0.0	1.

