

K32W041AM

Features

High Performance and Ultra-Low-Power MCU for Zigbee®, Thread, and Bluetooth LE 5.0 with Built-in NFC option.

Package

HVQFN40

plastic thermal enhanced very thin quad flat package; no leads; 40 terminals; body 6 x 6 x 0.85 mm.



Operating Features

Parameter	Value
I _{DD} [typ] (nA)	4.3,12.1,50
Flash Data (MB)	1000000
Junction Temperature (Min) (°C)	-40
Core: Number of cores (SPEC)	1
GPIO	22
Description	High Performance and Ultra-Low-Power MCU for Zigbee®, Thread, and Bluetooth LE 5.0 with Built-in NFC option
Free Programmable CPU	Arm Cortex-M4
Supply Voltage [Min - Max]	2.4,3.6

Parameter	Value
Operating Frequency [Max] (MHz)	48
Frequency (Max) (kHz)	48000
Supply Voltage [max] (V)	3.6
Supply Voltage [min] (V)	2.4
I _{CC} [typ] (mA)	50
I _{DD} [typ] (uA)	4300,12100,50000
Memory Size (B)	156000,640000,1000000
Supply Voltage [Min to Max] (V)	2.4 to 3.6
Peripheral Type	I ² C,SPI,UART
S _{RX} [typ] FSK @ 10 kHz BW (dBm)	-100.0
Serial Communication	2 x I ² C,2 x SPI,2 x UART
Core Type	1 x Arm Cortex-M4
Number of pins	40
Package Style	HVQFN

Parameter	Value
Peripheral Type	I ² C,SPI,UART
SRAM (Bytes)	156000
I ² C	2

Parameter	Value
T _{vj} [max] (°C)	85
Security Status	COMPANY PUBLIC
SPI	2
Max Transmit Power (dBm)	15
Receive Current Consumption (mA)	4.3
Core Type	Arm Cortex-M has child M3, M33, M4, M4F
Internal Memory Supported	FLASH,SRAM
RX Sensitivity (dBm)	-100
UART	2
Flash (kB)	640,1000
Junction Temperature (Max) (°C)	85
Junction Temperature (Min to Max) (°C)	-40 to 85
MCU Internal User Flash (SPEC) (kByte)	640,1000
Communication protocol	I ² C,SPI,UART
SRAM (kB)	156
Core Type	Arm Cortex-M4
Arm Core	Arm Cortex-M4
Master Interface	I ² C,SPI,UART
Operating Frequency [Max] (MHz)	48

Environmental

Part/12NC	Pb-Free	EU RoHS	Halogen Free	<u>RHE Indicator</u>	<u>REACH SVHC</u>	Weight (mg)
K32W041AMK(935414893557)	Yes	Yes	Yes	D	<u>REACH SVHC</u>	98.93063161356
K32W041AMY(935414893518)	Yes	Yes	Yes	D	<u>REACH SVHC</u>	98.93063161356
K32W041AMZ(935414893515)	Yes	Yes	Yes	D	<u>REACH SVHC</u>	98.93063161356

Quality

Part/12NC	Safe Assure Functional Safety	Moisture Sensitivity Level (MSL)		Peak Package Body Temperature (PPT) (C°)	
		Lead Soldering	Lead Free Soldering	Lead Soldering	Lead Free Soldering
K32W041AMK (935414893557)	No	3	3	240	260
K32W041AMY (935414893518)	No	3	3	240	260
K32W041AMZ (935414893515)	No	3	3	240	260