

AutoChips MCU选型手册

OC

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AC7840x Series of 32-bit ARM® Cortex-M4F MCUs Selection Guide

Part No.	Max Speed (MHz)	P-Flash (KB)	D-Flash (KB)	SRAM (KB)	I/O	Timer (32-bit)	WDG	UART	I2C	SPI	CAN	UART LIN	PWM	eIO	Crypto	ADC (12-bit)	Package	Operating Temp. Range(°C)
AC78406YGLA	120	1024	128	128	128	4	2	4	1	3	4	4	48-ch	1	1	48-ch	LQFP144	-40~125
AC78406LGLA	120	1024	128	128	89	4	2	4	1	3	4	4	39-ch	1	1	32-ch	LQFP100	-40~125
AC78406HGLA	120	1024	128	128	58	4	2	4	1	3	4	4	36-ch	1	1	29-ch	LQFP64	-40~125

字段	说明	值
AC	AutoChips	• AC
7	AutoChips mcu 系列	• 7
8	汽车通用型	• 8
4	Core Platform	• 4 = Cortex-M4F
0	特定功能位	<ul style="list-style-type: none"> • 0 = 产品系列代号 • 6/5/3 = 功能配置
6		
Y	引脚数目	<ul style="list-style-type: none"> • F = 48 • H = 64 • L = 100 • Y = 144 • U = 176
G	Flash存储器大小	<ul style="list-style-type: none"> • E = 256KB • F = 512KB • G = 1024KB • I = 2048KB
L	封装类型	<ul style="list-style-type: none"> • L = LQFP • Q = QFN • T = TSSOP
A	温度范围(° C)	<ul style="list-style-type: none"> • A = AEC-Q100 Grade 1(-40~125° C) • I = -40~105° C C = -40~85° C
/x	内部标识用, 仅包装P/N后缀用到	/A or /B and so on.

OC AC7802x Series of 32-bit ARM® Cortex-M0+ MCUs Selection Guide

Part No.	Max Speed (MHz)	Flash (KB)	Data Flash(KB)	SRAM(KB)	I/Os	Timer(32-bit)	WDG	RTC	UART/UART LIN	I2C	SPI	PWM	ACMP	12-bit ADCs	6-bit DAC	Package*	Operating Temp. Range(°C)
AC78022PBTA	32	32	2	4	16	4	1	1	2/1	1	1	3x2-ch	1	11-ch	0	TSSOP20	-40 to +125
AC78022MBQA	32	32	2	4	27	4	1	1	2/1	1	1	2x2-ch 1x4-ch	1	17-ch	1	HVQFN32	-40 to +125

OC AC7802x Series Naming Rule

字段	说明	值
AC	AutoChips	• AC
7	AutoChips MCU 系列	• 7
8	汽车通用型	• 8
0	Core Platform	• 0= Cortex-M0+
2	特定功能位	• 2:区分性能/版本
2		• 2:产品子系列: 2=不支持CAN-FD/CAN, 3=支持CAN-FD/CAN
F	引脚数目	• P : 20 • M : 32 • F : 48 • H : 64 • L : 100 • Y : 144 • U : 176
D	Flash存储器大小	• A = 16KB • B = 32KB • C = 64KB • D= 128KB
L	封装类型	• L = LQFP • Q = QFN • T = TSSOP
A	温度范围(°C)	• A= AEC-Q100 Grade 1(-40~125°C) • I= -40~105°C • C= -40~85°C
/x	内部标识用, 仅包装P/N后缀用到	/A or /B and so on.

OC AC7801x Series of 32-bit ARM® Cortex-M0+ MCUs Selection Guide

Part No.	Max Speed (MHz)	Flash (Kbytes)	SRAM (Kbytes)	I/O	Timer (32-bit)	WDG	RTC	UART	I2C	SPI	CAN	UART LIN	PWM	PWDT	COMP	ADC (12-bit)	Package	Operating Temp. Range(°C)
AC78010FCLI	48	64	16	42	4	1	1	2	2	2	0	2	16-ch	1	1	12-ch	LQFP48	-40 to +105
AC78012PBTA	48	32	8	16	4	1	1	2	1	1	0	2	8-ch	1	1	8-ch	TSSOP20	-40 to +125
AC78012PBTI	48	32	8	16	4	1	1	2	1	1	0	2	8-ch	1	1	8-ch	TSSOP20	-40 to +105
AC78012MBQI	48	32	8	27	4	1	1	3	1	1	0	2	16-ch	1	1	9-ch	QFN32	-40 to +105
AC78012MCQI	48	64	16	27	4	1	1	3	1	1	0	2	16-ch	1	1	9-ch	QFN32	-40 to +105
AC78012MDQI	48	128	20	27	4	1	1	3	1	1	0	2	16-ch	1	1	9-ch	QFN32	-40 to +105
AC78012FBLLI	48	32	8	42	4	1	1	3	2	2	0	2	16-ch	2	1	12-ch	LQFP48	-40 to +105
AC78012FCLI	48	64	16	42	4	1	1	3	2	2	0	2	16-ch	2	1	12-ch	LQFP48	-40 to +105
AC78012FDLI	48	128	20	42	4	1	1	3	2	2	0	2	16-ch	2	1	12-ch	LQFP48	-40 to +105



AC7801x Series of 32-bit ARM® Cortex-M0+ MCUs Selection Guide

Part No.	Max Speed (MHz)	Flash (Kbytes)	SRAM (Kbytes)	I/O	Timer (32-bit)	WDG	RTC	UART	I2C	SPI	CAN	UART LIN	PWM	PWDT	COMP	ADC (12-bit)	Package	Operating Temp. Range(°C)
AC78013MBQA	48	32	8	27	4	1	1	3	1	1	1	2	16-ch	1	1	9-ch	QFN32	-40 to +125
AC78013MCQA	48	64	16	27	4	1	1	3	1	1	1	2	16-ch	1	1	9-ch	QFN32	-40 to +125
AC78013MDQA	48	128	20	27	4	1	1	3	1	1	1	2	16-ch	1	1	9-ch	QFN32	-40 to +125
AC78013FCLA	48	64	16	42	4	1	1	3	2	2	1	2	16-ch	2	1	12-ch	LQFP48	-40 to +125
AC78013FDLA	48	128	20	42	4	1	1	3	2	2	1	2	16-ch	2	1	12-ch	LQFP48	-40 to +125
AC78013MBQI	48	32	8	27	4	1	1	3	1	1	1	2	16-ch	1	1	9-ch	QFN32	-40 to +105
AC78013MCQI	48	64	16	27	4	1	1	3	1	1	1	2	16-ch	1	1	9-ch	QFN32	-40 to +105
AC78013MDQI	48	128	20	27	4	1	1	3	1	1	1	2	16-ch	1	1	9-ch	QFN32	-40 to +105
AC78013FCLI	48	64	16	42	4	1	1	3	2	2	1	2	16-ch	2	1	12-ch	LQFP48	-40 to +105
AC78013FDLI	48	128	20	42	4	1	1	3	2	2	1	2	16-ch	2	1	12-ch	LQFP48	-40 to +105
AC78016MCQI	72	64	16	27	4	1	1	3	1	1	1	2	16-ch	1	1	9-ch	QFN32	-40 to +105
AC78016MDQI	72	128	20	27	4	1	1	3	1	1	1	2	16-ch	1	1	9-ch	QFN32	-40 to +105
AC78016FCLI	72	64	16	42	4	1	1	3	2	2	1	2	16-ch	2	1	12-ch	LQFP48	-40 to +105
AC78016FDLI	72	128	20	42	4	1	1	3	2	2	1	2	16-ch	2	1	12-ch	LQFP48	-40 to +105
AC78016MDQA	72	128	20	27	4	1	1	3	1	1	1	2	16-ch	1	1	9-ch	QFN32	-40 to +125
AC78016FDLA	72	128	20	42	4	1	1	3	2	2	1	2	16-ch	2	1	12-ch	LQFP48	-40 to +125

字段	说明	值
AC	AutoChips	• AC
7	AutoChips MCU 系列	• 7
8	汽车通用型	• 8
0	Core Platform	• 0= Cortex-M0+
1	特定功能位	• 1:区分性能/版本
3		• 3:产品子系列 6= CPU 72MHz 3=支持CAN-FD/CAN 2=不支持CAN-FD/CAN 0= ESD 2KV
F	引脚数目	• P = 20 • M = 32 • F = 48
D	Flash存储器大小	• A = 16KB • B = 32KB • C = 64KB • D= 128KB
L	封装类型	• L = LQFP • Q = QFN • T = TSSOP
A	温度范围(°C)	• A= AEC-Q100 Grade 1(-40~125°C) • I= -40~105°C • C= -40~85°C
/x	内部标识用, 仅包装P/N后缀用到	/A or /B and so on.



AC781x Series of 32-bit ARM® Cortex-M3 MCUs Selection Guide

Part No.	Max Speed (MHz)	Flash (Kbytes)	SRAM (Kbytes)	I/O	Timer (32-bit)	WDG	RTC	UART	I2C	SPI	CAN	LIN	PWM*	COMP	DAC* (6-bit)	ADC (12-bit)	Package*	Operating Temp. Range(°C)
AC7811QBGE	100	256	64	68	8	1	1	6	2	2	2	1	12-ch	2	2	16-ch	LQFP80	-40 to +125
AC7811OBGE	100	128	32	68	8	1	1	6	2	2	2	1	12-ch	2	2	16-ch	LQFP80	-40 to +125
AC7811MBGE	100	64	16	68	8	1	1	6	2	2	2	1	12-ch	2	2	16-ch	LQFP80	-40 to +125
AC7811QBFE	100	256	32	52	8	1	1	6	2	2	2	1	9-ch	2	2	12-ch	LQFP64	-40 to +125
AC7811OBFE	100	128	32	52	8	1	1	6	2	2	2	1	9-ch	2	2	12-ch	LQFP64	-40 to +125
AC7811MBFE	100	64	16	52	8	1	1	6	2	2	2	1	9-ch	2	2	12-ch	LQFP64	-40 to +125
AC7815QBGE	100	256	64	68	8	1	1	6	2	2	2	1	12-ch	2	2	16-ch	LQFP80	-40 to +85
AC7815OBGE	100	128	32	68	8	1	1	6	2	2	2	1	12-ch	2	2	16-ch	LQFP80	-40 to +85
AC7815MBGE	100	64	16	68	8	1	1	6	2	2	2	1	12-ch	2	2	16-ch	LQFP80	-40 to +85
AC7815QBFE	100	256	32	52	8	1	1	6	2	2	2	1	9-ch	2	2	12-ch	LQFP64	-40 to +85
AC7815OBFE	100	128	32	52	8	1	1	6	2	2	2	1	9-ch	2	2	12-ch	LQFP64	-40 to +85
AC7815MBFE	100	64	16	52	8	1	1	6	2	2	2	1	9-ch	2	2	12-ch	LQFP64	-40 to +85
AC7815JBFE	100	32	8	52	8	1	1	6	2	2	2	1	9-ch	2	2	12-ch	LQFP64	-40 to +85

*Package Identifier:80(10mm*10mm),64(7mm*7mm)

*PWM:12-ch (one 6-channel and three 2-channel) ,9-ch(one 6-channel,one 2-channel and one 1- channel)

*DAC:internal

AEC-Q100:AC7811,AEC-Q100 Grade 1; AC7813,AEC-Q100 Grade 3;AC7815,Not Guaranteed

AC7811xJxx:Add additional Test Pattern to eFlash ;

OC AC781x 命名规则

字段	说明	值
AC	AutoChips	• AC
7	AutoChips mcu 系列	• 7
8	汽车通用型	• 8
1	代	• 1= 第一代
1	温度范围(°C)	<ul style="list-style-type: none"> • 1= AEC-Q100 Grade 1 • 3= AEC-Q100 Grade 3 • 5= 85°C
Q	Flash存储器大小	<ul style="list-style-type: none"> • Q = 256 KB • O = 128 KB • M = 64 KB • J = 32 KB
B	标准	<ul style="list-style-type: none"> • B = 常规标准 • J = BCM标准
G	引脚数目	<ul style="list-style-type: none"> • F = 64 (7 mm x 7 mm) • G = 80 (10 mm x 10 mm)
E	封装类型	• E = LQFP
/x	内部标识用, 仅包装P/N后缀用到	/A or /B and so on.

THANK YOU



官方网址:

<http://www.autochips.com>

21 IC论坛:

<https://bbs.21ic.com/iclist-864-1.html>

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