



十速科技股份有限公司  
tenx technology inc.

Advance  
Information

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# USB Micro-Controller

## TMU3112MS

**The difference between TMU3112  
and TMU3112MS**

## Application Note

**Tenx reserves the right to change or  
discontinue this product without notice.**

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**PRODUCT NAME****TMU3112MS****TITLE****The difference between TMU3112 and TMU3112MS****APPLICATION NOTE**

The TMU3112MS is Mask-ROM Type and cost down version for TMU3112, The DC electrical characteristics have some variations with TMU3112. Please refer to the TMU3112MS datasheet for more details.

TMU3112MS functions are basically same as TMU3112, except some functions listed as below:

	TMU3112	TMU3112MS	Note
ROM-type	OTP	MASK	
RC Freq	1MHz	850KHz	R=1K, C=750pF Vbat=3.0V, Vdd=N.C.
5V detection	When Vdd >= 4.3~4.45v, Vdet=Hi,	When Vdd >= Vbat+0.2v, Vdet=Hi,	Vbat=3.3v
ICE function	v	x	
Smart Card I/F	v	x	
VIO pad	v	x	
UART	v	x	
SPIA (M/S)	v	x	
WDT	(2^15)xCPUCLK	(2^15)xCPUCLK x24	RC or 24MHz
VBAT PIN (In Single Mode)	Floating	Tie to VSS	

**v:** function available

**x:** function don't support

## APPLICATION CIRCUIT

The VBAT pin should tie to power ground when mask option is selected in SINGLE MODE.

