PRODUCT NAME
TM8795

TITLE
TM8795 Electrical Characteristics

APPLICATION NOTE

A. The characteristics in this document are only for reference. The operating current is measured in room temperature (25℃) and without loading. In mass-production, the characteristics will be influenced by process deviation, temperature, Option, loading and operating voltage.

B. Power Consumption
LCD：1/2Bias，1/4Duty * 9 Seg，Size：1cm * 2.5cm

At 3V，25℃

TM8795 (Crystal and Internal Fast 500kHz 3V)											
Condition	1	2	3	4	5	6	7	8	9	10	11
3V	V	V	V	V	V	V	V	V	V	V	
LCD	on	on	on	on	on	on	on	OFF	OFF		
Operating	V	V	V	V							
Bcf Flag	1	0	1	0	1	1	0	1	0	1	0
Halt						V	V	V	V	V	
Stop					V						
500KHz			V	V							
32768Hz	V	V			V	V	V	V	V	V	V
Operating current (μA)	9.27	9.06	135.83	135.67	0.08	4.47	4.26	4.32	4.07		
Freq. Tolerance (sec./day)										-0.24	-0.45

TM8795 (Internal Fast Only 250kHz 3V)							
Condition	1	2	3	4	5	6	7
LCD	on	on	on	on	on	OFF	OFF
Operating	V	V					
Bcf Flag	1	0	1	1	0	1	0
Halt				V	V	V	V
Stop			V				
Operating current (μ A)	71.78	72.14	0.08	33.77	34.11	32.68	32.7

Notes:

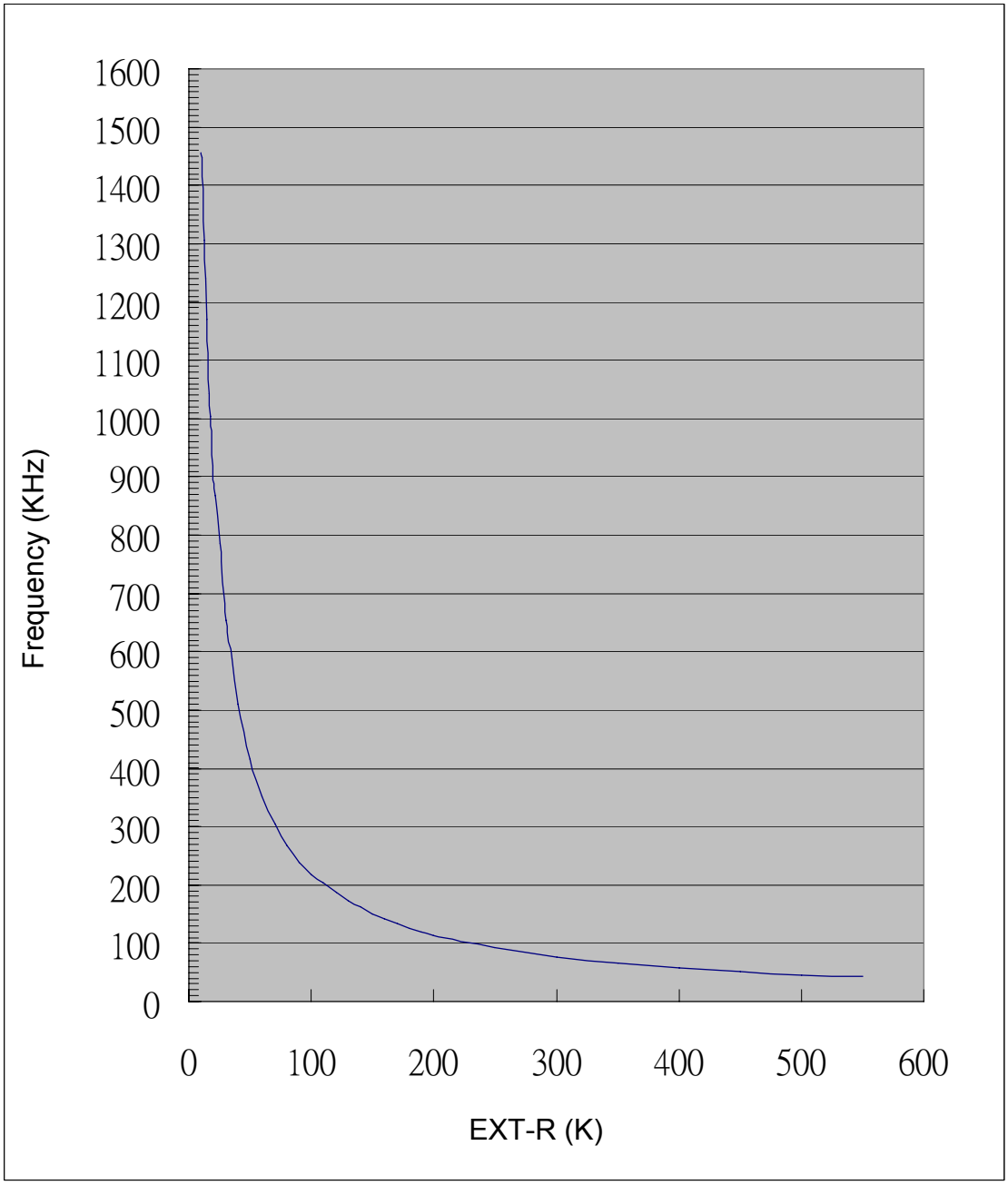
1. Freq. Tolerance means after trimming the capacitance of external capacitor in 32768Hz Crystal oscillator, how many seconds the real time clock function will be fast or slow everyday.

Many factors will influence the frequency tolerance, such as setting of BCF flag in MCU, manufacture/lot No./type of Crystal oscillator, PCB layout and quality of external capacitor.

2. The circuitry of oscillator driver in TM8795 is the same as TM87 series MCUs, but the circuitry of power saving mode (BCF=0) is different from TM87 series MCUs.

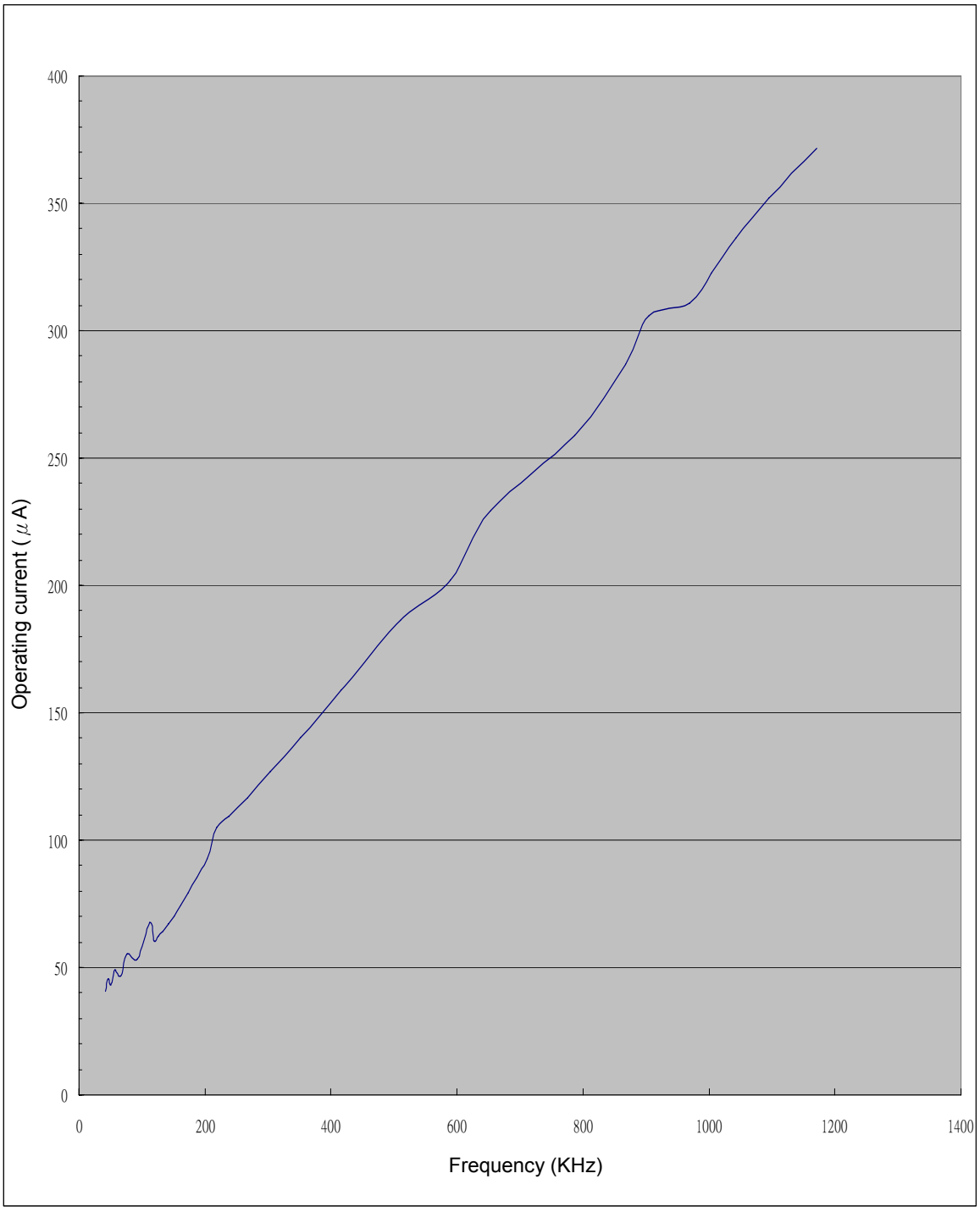
C. Ext-R vs. Frequency vs. Operating Current

1). At 3V，25℃
Ext-R vs. Frequency



(Figure-1)

2). At 3V，25℃
Frequency vs. Operation Current



(Figure-2)

D. Slow RC vs. 32768Hz
At 3V，25℃：220pF and 106 KΩ