# Crystal Unit

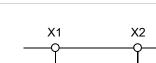
Product	TFX-04
Model number	ST-RIVER-1610-5PF-80K
Nominal frequency	32.768 kHz
Overtone order [Cut]	Fundamental [X-cut]
Load capacitance	5 pF
Equivalent series resistance	80 kΩ Max.
Frequency tolerance	±20 ppm (@25°C)

# IC

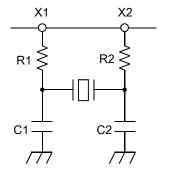
Manufacturer	STMicroelectronics	
Model	STM32F103××	

# **Recommended Condition for Stable Oscillation**

Negative resistance	240 kΩ Min.	
Drive level	0.5 μW Max.	



Circuit Diagram



## **Evaluation Result**

R1	R2	C1	C2	Negative resistance	Drive level	Frequency deviation
[Ω]	[Ω]	[pF]	[pF]	[kΩ]	[µW]	[ppm]
0	0	1	2	340	0.1 Max.	

\* Ambient temperature: +25°C / Supply voltage: USB



http://www.river-ele.co.jp/

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