

# **WT32i Current Consumption**

APPLICATION NOTE

Friday, 14 March 2014

Version 1.0

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## VERSION HISTORY

Version	Comment
1.0	First version
1.1	Updated contact details

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# 1 Setup

The current consumption of WT12 was measured over 1 ohm resistor with the setup shown in the picture below. AVG current consumption was measured with a multimeter and peak current was measured with an oscilloscope.

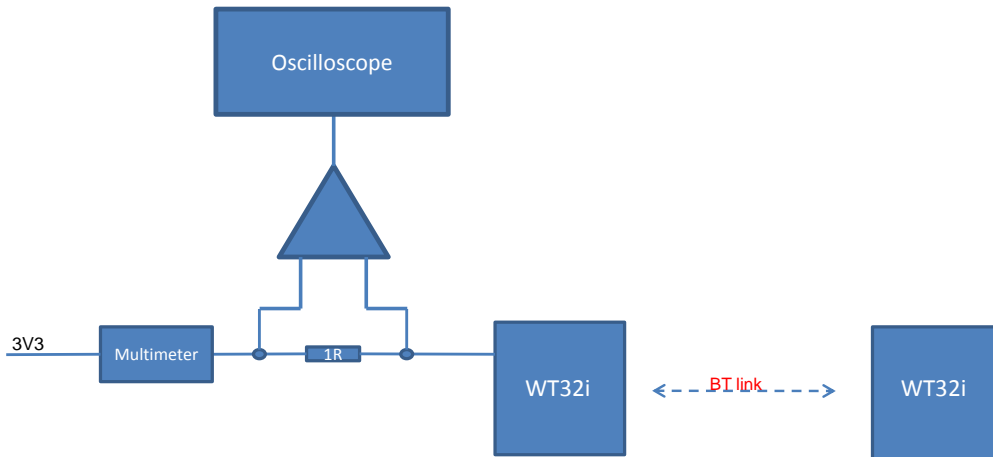
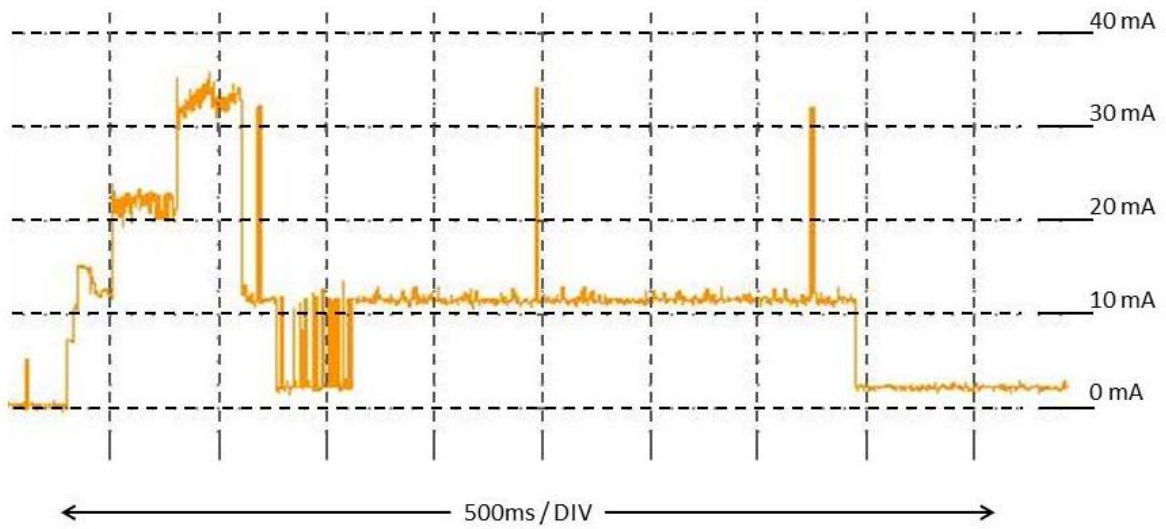


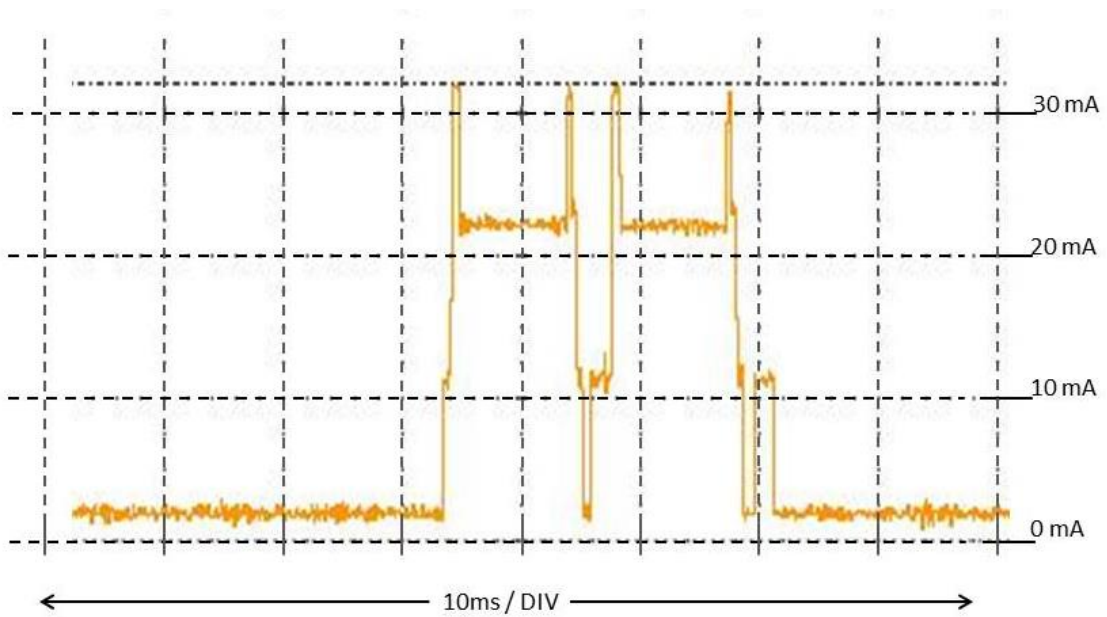
Figure 1: Setup for the current measurement

## 2 Results

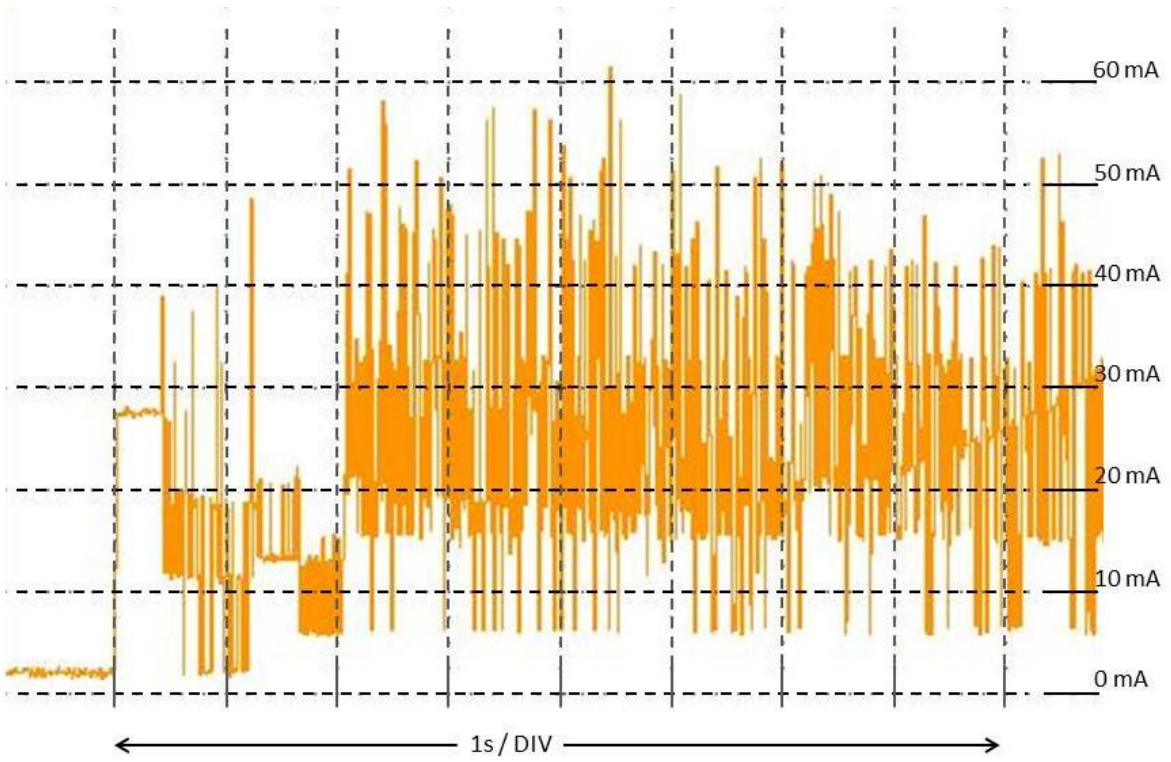
Operation Mode		Peak	Average	Unit
Idle	SET BT PAGEMODE 0 2000 0	12	2.0	mA
	SET BT PAGEMODE 0 2000 1		2.0	
	SET BT PAGEMODE 0 2000 2		2.0	
	SET BT PAGEMODE 1 2000 0	32	2.0	
	SET BT PAGEMODE 1 2000 1		2.1	
	SET BT PAGEMODE 1 2000 2		2.1	
	SET BT PAGEMODE 2 2000 0		23	
	SET BT PAGEMODE 2 2000 1		2.2	
	SET BT PAGEMODE 2 2000 2		2.1	
	SET BT PAGEMODE 3 2000 0		23	
	SET BT PAGEMODE 3 2000 1		2.3	
	SET BT PAGEMODE 3 2000 2		2.2	
	SET BT PAGEMODE 4 2000 0		23	
	SET BT PAGEMODE 4 2000 1		2.3	
	SET BT PAGEMODE 4 2000 2		2.2	
Sleep	SET BT PAGEMODE 0 2000 0	12	0.08	mA
	SET BT PAGEMODE 0 2000 1		0.08	
	SET BT PAGEMODE 0 2000 2		0.08	
	SET BT PAGEMODE 1 2000 0	32	0.18	
	SET BT PAGEMODE 1 2000 1		0.18	
	SET BT PAGEMODE 1 2000 2		0.18	
	SET BT PAGEMODE 2 2000 0		23.5	
	SET BT PAGEMODE 2 2000 1		0.31	
	SET BT PAGEMODE 2 2000 2		0.19	
	SET BT PAGEMODE 3 2000 0		23	
	SET BT PAGEMODE 3 2000 1		0.4	
	SET BT PAGEMODE 3 2000 2		0.29	
	SET BT PAGEMODE 4 2000 0		23	
	SET BT PAGEMODE 4 2000 1		0.4	
	SET BT PAGEMODE 4 2000 2		0.29	
Connected, Sniff disabled	SET BT SNIFF 0 20 1 8		4.7	
Connected + Sniff, Master	SET BT SNIFF 40 20 1 8		3.9	
Connected + Sniff, Master	SET BT SNIFF 1000 20 1 8		2.5	
Connected + Sniff, Slave	SET BT SNIFF 40 20 1 8		3.6	
Connected + Sniff, Slave	SET BT SNIFF 1000 20 1 8		2.5	
A2DP Audio Streaming	A2DP SINK, INTERNAL CODEC	75	28	mA
A2DP Audio Streaming	A2DP SOURCE, INTERNAL CODEC	70	23	



**Figure 2: Current consumption profile during boot**



**Figure 3: Current consumption profile during idle (pagemode 4)**



**Figure 4: Current consumption profile when creating an A2DP connection**



### 3 Contact Information

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