



SmartRF[®] CC2420DBK & CC2420 ZigBee DK

CC2420DB Important Notice

September 24, 2004

Removal of External RAM (U10) on CC2420DB incorporated in the CC2420DBK and CC2420 ZigBee DK.

Revision 1.4 or older of the CC2420DB reference design is shipped with two external RAMs of 32kB to obtain a total of 64kB RAM space. This external RAM was included for debugging purposes, and to buffer and store data if desired. The 64kB external RAM size is not a requirement nor necessary for a low cost and low power ZigBee logical device or an IEEE 802.15.4 Full Function or Reduced Function Device.

Since U10 is enabled when the RAM is not in use removing it will decrease the current consumption significantly. After removing U10 the current consumption for a standard application running an IEEE 802.15.4 Reduced Function Device will be around 13mA. Please note that the external RAM bank address after removal starts at 0x8000h instead of 0x1100h.

The remaining external RAM will always draw a current of 2mA in any power down mode since its power supply cannot be disabled. Thus, if the external RAM (U3) is removed also the current consumption will decrease with an additional 2mA.

From revision 1.5 CC2420DB will be shipped with one external RAM of 32kB. This does not change the performance in any way, but will eliminate the above mentioned current draw.

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