

# BROWNS BRAIN

T H E R E ' S N O T H I N G S M A R T E R T H A N A B R A I N !



## ULTRASONIC BOARD B B 0 1 7



The BB017 makes adding sonar abilities to my project easy!

The Browns Brain ultrasonic board, **BB017**, is useful for many projects. With this small (2"x2.5") printed circuit board, you can easily incorporate sonar ranging, obstacle avoidance and more into your product. This is great for robot applications!

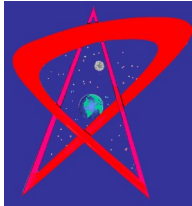
Apply power to the **BB017** and start reading back distance in 12 bit binary format. Ranging is controlled with an active high, user input signal. The **BB017** will wait until the echoes die down before making another measurement. One measurement will take a maximum of 83mS and a minimum of 3mS. The READY' output signal indicates valid data when READY' is at logic low.

Here are some of the features:

1. 12 bit parallel data output representing time/distance (1 bit = 0.27 inches, 0.69cm)
2. +7V to 10V power input, 5V logic output
3. Active low output indicates when device has valid data
4. 2 inches by 2.5 inches, physical size
5. Smart board - automatically ignores extra echoes!
6. Range: 0.5m (1'7") to 6.5m (21'4") *theoretical maximum distance of 14.25m (46'9")*
7. Accuracy is  $\pm 2.5\text{cm}$  ( $\pm 1"$ )
8. Operates at 25 KHz not 43 KHz, allows simultaneous use with 43 KHz systems
9. One reading automatically every 2 seconds without user input or with active high user input, up to one reading every 200mS.

[www.brownsbrain.com](http://www.brownsbrain.com)

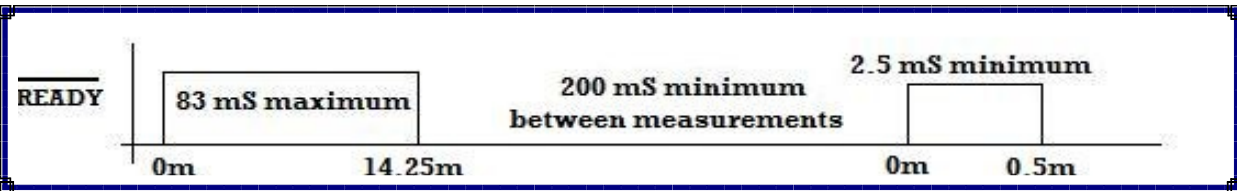
Email: [info@brownsbrain.com](mailto:info@brownsbrain.com)



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T H E R E ' S   N O T H I N G   S M A R T E R   T H A N   A   B R A I N !

	MINIMUM	Normal	MAXIMUM
Power Supply (V <sub>DC</sub> )	7.0	9.0	10.0
Current (mA)	35	36	39
Distance (m/ft) Minimum	0.542 / 1' 9.325" (0000 0100 0101)	0.542 / 1' 9.325" (0000 0100 0101)	0.542 / 1' 9.325" (0000 0100 0101)
Distance (m/ft) Maximum		7.014 / 23' 0.14" (0011 1111 0101)	



*12 bit data is valid while READY' signal is low. Ready' signal will be low for at least 200 mS.*