

Bit Time Calculations for the Microchip CAN

Setup Criteria

Oscillator Frequency	16,000 MHz
Target CAN Bus Baud Rate	500,000 kbps

Selected Options

BRP-1 (Baud Rate Prescaler)	1
T _q (Time Quanta)	250,000 ns
Number of Time Quanta	8
% Error of Target Baud Rate	0,0 %

Bit Timing Setup in T_q

Propagation Delay	4
Phase Segment 1	1
Phase Segment 2	2
Synchronization Jump Width (SJW)	2

Multiple bit sampling is off. Wakeup filter is off.

Bit Timing Diagram



Configuration Register Setup (PIC18/MCP251X) (neoVI blue/green, ValueCAN 2)

Register	Binary	Hexadecimal
CNF1/BRGCON1	b'01000001'	0x41
CNF2/BRGCON2	b'10000011'	0x83
CNF3/BRGCON3	b'00000001'	0x01

Configuration Register Setup (dsPIC33F,PIC24H,dsPIC30) (neoVI Red/Fire/Test/Yellow/ECU, ValueCAN 3)

Register	Binary	Hexadecimal
CICFG1	b'0000000001000001'	0x0041
CICFG2	b'00000000110000011'	0x0183

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Microchip CAN Bit Timing Calculator by Intrepid Control Systems, Inc. (www.intrepidcs.com)

