

## Bit Time Calculations for the Microchip CAN

### Setup Criteria

Oscillator Frequency	40,000 MHz
Target CAN Bus Baud Rate	500,000 kbps

### Selected Options

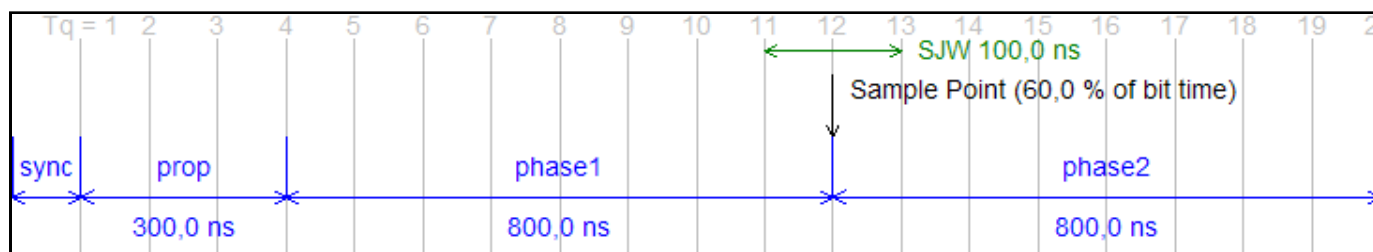
BRP-1 (Baud Rate Prescaler)	1
Tq (Time Quanta)	100,000 ns
Number of Time Quanta	20
% Error of Target Baud Rate	0,0 %

### Bit Timing Setup in Tq

Propagation Delay	3
Phase Segment 1	8
Phase Segment 2	8
Synchronization Jump Width (SJW)	1

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'00000001'	0x01
CNF2/BRGCON2	b'10111010'	0xBA
CNF3/BRGCON3	b'00000111'	0x07

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

Register	Binary	Hexadecimal
CICFG1	b'00000000000000000001'	0x0001
CICFG2	b'0000011110111010'	0x07BA

Generated 2:42:00 pm 07.29.2009

Microchip CAN Bit Timing Calculator by Intrepid Control Systems, Inc. ( [www.intrepidcs.com](http://www.intrepidcs.com) )