

Bit Time Calculations for the Microchip CAN

Setup Criteria

Oscillator Frequency	40,000 MHz
Target CAN Bus Baud Rate	83,000 kbps

Selected Options

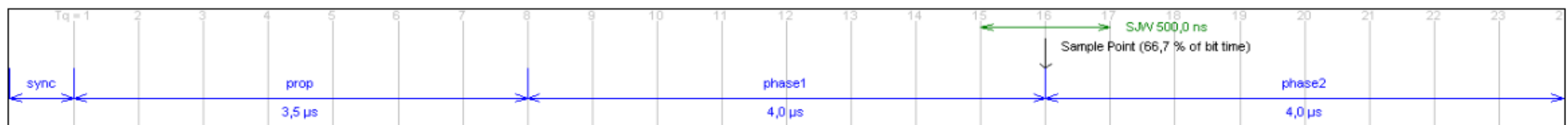
BRP-1 (Baud Rate Prescaler)	9
Tq (Time Quanta)	500,000 ns
Number of Time Quanta	24
% Error of Target Baud Rate	-0,402 % (Actual Baud Rate is 83,333333 kbps)

Bit Timing Setup in Tq

Propagation Delay	7
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'00001001'	0x09
CNF2/BRGCON2	b'10111110'	0xBE
CNF3/BRGCON3	b'00000111'	0x07

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

Register	Binary	Hexadecimal
CICFG1	b'00000000000001001'	0x0009
CICFG2	b'0000011110111110'	0x07BE