

## Oscillator Tolerance & Sample Point

### 5.2.2.2 Transfer Rate & Bit Timing

Bit-timing parameters should be according to the selected bit rate.

~~In all cases, the data rate should be selected as low as possible, but high enough to fulfill the foreseen tasks, including a suitable safety margin for worst case conditions.~~ The maximum busload for synchronous and pure asynchronous data transfers should be 80% and 30% respectively.

Each node should consider 100% busload for the design input buffering and filtering functions.

The transfer rate shall be 125 kbps tolerance 1000ppm. Oscillator freq. to be multiple of 2MHz(2.000.000 Hz)

The sample point shall be 75% and base frequency of the oscillator tolerance shall be less or equal than 100ppm. Refer to ARINC Specification 825 Table 3-2.

Bit Rate (kbit/s)	No. of Tq / bit	Prob_Seg + Phase_Seg1 (Tq)	Phase_Seg2 (Tq)	SJW (Tq)
125	16	11	4	1

Note: We propose to add background information on this subject.

## **Recommendation of CAN Bus Transceiver Topology / Protection Design**

### **5.2.1.5 Common Mode Bus Voltage Range**

This is the boundary voltage levels of VCANL and VCANH, with respect to ground for which proper operation will occur, if up to the maximum number of CAN nodes are connected to the bus.

The minimum voltage level should exceed ISO-11898 and be minimum +/- 25 DC for CANH and CANL.

Note: Only Transient Voltage Suppression according to ARINC 825 7.3.4.3.2 shall be used.

**Defintion of CAN Bus Topology and Minimum Protection Performance gives  
robust System Performance**

## STA\_GAIN Definition Correction

**Table 6-46 – STA\_GAIN Data Field Format**

Byte	Bit	Data	Designation
	7	STA_GAIN_Mode MSB	Bits: 4
	6	STA_GAIN_Mode	Coding: BIN
	5	STA_GAIN_Mode	Units: -
	4	STA_GAIN_Mode LSB	Resolution: 1 Range: 0-15 0: Reserved 1: Centralized 2: Fallback 4: Workshop 5-15: Reserved

Needs to be “3” instead of “2”