

**Table 154. Error calculation for programmed baud rates at  $f_{PCLK} = 30$  MHz or  $f_{PCLK} = 60$  MHz, oversampling by 8<sup>(1) (2)</sup> (continued)**

Oversampling by 8 (OVER8=1)							
Baud rate		$f_{PCLK} = 30$ MHz			$f_{PCLK} = 60$ MHz		
S.No	Desired	Actual	Value programmed in the baud rate register	% Error = (Calculated - Desired)B.Rate / Desired B.Rate	Actual	Value programmed in the baud rate register	% Error
7	460.8 KBps	461.538 KBps	8.1250	0.16%	461.538 KBps	16.2500	0.16%
8	896 KBps	909.091 KBps	4.1250	1.46%	895.522 KBps	8.3750	0.05%
9	921.6 KBps	909.091 KBps	4.1250	1.36%	923.077 KBps	8.1250	0.16%
10	1.792 MBps	1.7647 MBps	2.1250	1.52%	1.8182 MBps	4.1250	1.46%
11	1.8432 MBps	1.8750 MBps	2.0000	1.73%	1.8182 MBps	4.1250	1.36%
12	3.584 MBps	3.7500 MBps	1.0000	4.63%	3.5294 MBps	2.1250	1.52%
13	3.6864 MBps	3.7500 MBps	1.0000	1.73%	3.7500 MBps	2.0000	1.73%
14	7.168 MBps	NA	NA	NA	7.5000 MBps	1.0000	4.63%
15	7.3728 MBps	NA	NA	NA	7.5000 MBps	1.0000	1.73%

1. The lower the CPU clock the lower the accuracy for a particular baud rate. The upper limit of the achievable baud rate can be fixed with these data.
2. Only USART1 and USART6 are clocked with PCLK2. Other USARTs are clocked with PCLK1. Refer to the device datasheets for the maximum values for PCLK1 and PCLK2.

**Table 155. Error calculation for programmed baud rates at  $f_{PCLK} = 42$  MHz or  $f_{PCLK} = 84$  Hz, oversampling by 16<sup>(1)(2)</sup>**

Oversampling by 16 (OVER8=0)							
Baud rate		$f_{PCLK} = 42$ MHz			$f_{PCLK} = 84$ MHz		
S.No	Desired	Actual	Value programmed in the baud rate register	% Error = (Calculated - Desired)B.Rate / Desired B.Rate	Actual	Value programmed in the baud rate register	% Error
1	1.2 KBps	1.2 KBps	2187.5	0	1.2 KBps	NA	0
2	2.4 KBps	2.4 KBps	1093.75	0	2.4 KBps	2187.5	0
3	9.6 KBps	9.6 KBps	273.4375	0	9.6 KBps	546.875	0
4	19.2 KBps	19.195 KBps	136.75	0.02	19.2 KBps	273.4375	0
5	38.4 KBps	38.391 KBps	68.375	0.02	38.391 KBps	136.75	0.02
6	57.6 KBps	57.613 KBps	45.5625	0.02	57.613 KBps	91.125	0.02
7	115.2 KBps	115.068 KBps	22.8125	0.11	115.226 KBps	45.5625	0.02
8	230.4 KBps	230.769 KBps	11.375	0.16	230.137 KBps	22.8125	0.11
9	460.8 KBps	461.538 KBps	5.6875	0.16	461.538 KBps	11.375	0.16