**Gyroscope Modelling Parameters**

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| **Gain (Scale Factor °/s to count)** |  |  |
| sensitivity (scale factor) | for ±75°/s, k = 96 LSB/°/s | x raw data of gyro |
|  | for ±150°/s, k = 48 LSB/°/s | x raw data of gyro |
|  | for ±300°/s, k = 24 LSB/°/s | x raw data of gyro |
|  | for ±900°/s, k = 8 LSB/°/s | x raw data of gyro |

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| **MEMS Gyro Dynamics** |  |  |
| natural frequency (ωn)[Hz][rad/s] | 22 kHz | 22 kHz x 2 x pi |
| frequency of low pass filter (ω) [Hz][rad/s] |  |  |
| damping ratio of gyro (zeta) | Must be > 0.5 |  |
| damping ratio of filter (z) |  |  |

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| **Band-Limited White Noise** |  |  |
| noise power (rate noise density) | Equal power at all frequencies | 0.018°/s/√Hz ^ 2 |
| sample time (frequency) | SPI message rate(?) | 1 kHz |

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| **Digital LPF Represented by s-domain TF** |  |  |
| frequency of low pass filter (ω) [Hz][rad/s] |  |  |
| damping ratio of filter (z) |  |  |