

NECESSARY BANDWIDTH DESCRIPTION

In the current design, there are 2 sensors outputting 9 kHz data streams (16 bit measurements at 562 Hz), and two sensors outputting 1 kHz data streams (18 bit measurements at 60 Hz). In order to minimize the power output and to improve compatibility in noisy environments, the sensor data is encoded by an error correcting code which increases the data size by a factor of approximately 2. So, 50 kHz is an upper limit of the bandwidth required for the operation of the device across its development lifespan.