**Sub8 Kill Board Documentation**

**BRDSTS0 – Board Status Byte 0**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Bit | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| +0x00 | **HKS** | **HKH** | **HHALL** | **SKS** | **SKH** | **SHALL** | **GOHALL** | **-** |
| Initial Value | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

* **Bit 7 HKS – Hard Kill (Software)**
  + Flag to describe if the current hard kill is due to a software message via CAN
* **Bit 6 KHK – Hard Kill (Hardware)**
  + Flag to describe if the current hard kill is due to the hall effect sensor
* **Bit 5 HHALL – Hard Kill Hall Effect Status**
  + Current value of the hard kill hall effect sensor
* **Bit 4 SKS – Soft Kill (Software)**
  + Flag to describe if the current soft kill is due to a software message via CAN
* **Bit 3 SKH – Soft Kill (Hardware)**
  + Flag to describe if the current soft kill is due to the hall effect sensor
* **Bit 2 SHALL – Soft Kill Hall Effect Status**
  + Current value of the soft kill hall effect sensor
* **Bit 1 GOHALL – Go Hall Effect Status**
  + Current value of the go hall effect sensor
* **Bit 0 Reserved**

**BRDSTS1 – Board Status Byte 1**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Bit | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| +0x00 | **HBL** | **TIS** | **BL** | **-** | **-** | **-** | **-** | **-** |
| Initial Value | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

* **Bit 7 HBL – Heartbeat Lost**
  + Flag to describe if the heartbeat has been lost
* **Bit 6 TIS – Thruster Initialized Status**
  + Flag to describe if the thrusters have been initialized
* **Bit 5 BL – Battery Low**
  + Flag from battery monitor if battery voltage is critically low
* **Bit 4:0 Reserved**

**Thruster Label and Numbers**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Thruster** | FHL | FHR | FVL | FVR | BHL | BHR | BVL | BVR |
| **Number** | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |