At least 2 apparent typos were fixed in the frequency bands published in Columbus IRD Table 3.1.2.5.2-2
see email between Hrovat and Peignier on 2018-07-18
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Start GMT 17-July-2018, 198/16:15:00.001

PWM = 100%
Pwm = 90%
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Start GMT 17-July-2018, 198/16:30:52.000

RMS Acceleration (g RMS)

Hanning, k = 1

Mode: pow2

PWM = 80%
Columbus IRD Frequency Bands (Hz)

RMS Acceleration (g RMS)

Start GMT 17-July-2018, 198/16:00:00.001

SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

PWM = 70%

Span = 131.07 sec.

Mode: pow2

f = 0.008 Hz, Nfft = 65536
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Start GMT 17-July-2018, 198/16:40:00.001

PWM = 60%

RMS Acceleration (g) vs. Columbus IRD Frequency Bands (Hz)
RMS Acceleration (g RMS)

Start GMT 17-July-2018, 198/16:48:00.001

sams2, 121f08, COL1A3, EPM, near PK-4:
[371.17 287.43 165.75]

PWM = 50%
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Start GMT 17-July-2018, 198/17:28:37.001

PWM = 40%
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Start GMT 17-July-2018, 198/16:58:30.001

PWM = 30%
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Start GMT 17-July-2018, 198/17:08:00.001

PWM = 20%
ISS Microgravity Control Plan One-Third Octave
Columbus IRD Microgravity Limits Comparison
Legend for the Remaining Slides

BLUE: Columbus IRD Limits
BLACK: Values Computed from SAMS Measurements Using Historical One-Third Octave Frequency Bands
PALE RED: One-Third Octave Frequency Bands and Acceleration Limits taken from "Microgravity Control Plan" -- January 21, 1994
ISS Microgravity Control Plan One-Third Octave
Columbus IRD Microgravity Limits Comparison

ZOOM-IN to Show An Example of Frequency Band Discrepancy

BLUE: Columbus IRD Limits
BLACK: Values Computed from SAMS Measurements Using Historical One-Third Octave Frequency Bands

PALE RED: One-Third Octave Frequency Bands and Acceleration Limits taken from "Microgravity Control Plan" -- January 21, 1994
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Start GMT 17-July-2018, 198/16:15:00.001

 PWM = 100%

RMS Acceleration (g RMS)

One-Third Octave Frequency Bands (Hz)
### One-Third Octave Frequency Bands (Hz)

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>RMS Acceleration (g RMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$10^{-8}$</td>
<td></td>
</tr>
<tr>
<td>$10^{-7}$</td>
<td></td>
</tr>
<tr>
<td>$10^{-6}$</td>
<td></td>
</tr>
<tr>
<td>$10^{-5}$</td>
<td></td>
</tr>
<tr>
<td>$10^{-4}$</td>
<td></td>
</tr>
<tr>
<td>$10^{-3}$</td>
<td></td>
</tr>
<tr>
<td>$10^{-2}$</td>
<td></td>
</tr>
<tr>
<td>$10^{-1}$</td>
<td></td>
</tr>
<tr>
<td>$10^0$</td>
<td></td>
</tr>
<tr>
<td>$10^1$</td>
<td></td>
</tr>
<tr>
<td>$10^2$</td>
<td></td>
</tr>
</tbody>
</table>

---

**SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)**

**Start GMT 17-July-2018, 198/16:30:52.000**

**PWM = 80%**

![Graph of RMS Acceleration vs. Frequency Bands](image-url)
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Mode: pow2

Start GMT 17-July-2018, 198/16:00:00.000

PWM = 70%

One-Third Octave Frequency Bands (Hz)

RMS Acceleration ( g RMS )

Span = 131.07 sec.

PWM = 70%
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Start GMT 17-July-2018, 198/16:40:00.002

PWM = 60%
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Start GMT 17-July-2018, 19/16:48:00.000

PWM = 50%
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Start GMT 17-July-2018, 198/17:28:37.001

PWM = 40%
RMS Acceleration (g RMS)

Start GMT 17-July-2018, 198/16:58:30.001
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Span = 131.07 sec.
Hanning, k = 1
Sum

Mode: pow2
f = 0.008 Hz, Nfft = 65536
500.0000 sa/sec (200.00 Hz)
PWM = 30%
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Start GMT 17-July-2018, 198/17:22:00.001

PWM = 0%
SAMS2, 121f08, COL1A3, EPM, near PK-4, 200.0 Hz (500.0 s/sec)

Start GMT 17-July-2018, 198/17:46:00.001

ICF off

RMS Acceleration (g RMS)

One-Third Octave Frequency Bands (Hz)

Span = 131.07 sec.

Mode: pow2

f = 0.008 Hz, Nfft = 65536

500.0000 sa/sec (200.0 Hz)

Δf = 0.008 Hz, Nfft = 65536