Document Change Notice (DCN)

NRCSD Guide Rail Width

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1 Document Purpose

This Document Change Notice (DCN) notifies changes made to the NanoRacks CubeSat Deployer (NRCSD) Interface Control Document (NR-SRD-029). Developers utilizing NanoRacks CubeSat deployment services shall comply with all changes presented in this document, unless otherwise approved by NanoRacks. These changes will be incorporated into the next revision of the NRCSD ICD (Revision 0.37).

2 DCN Summary

<table>
<thead>
<tr>
<th>DCN Number</th>
<th>NR-SRD-063</th>
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<tr>
<td>Document Affected</td>
<td>NRCSD ICD REV36, NR-SRD-029</td>
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<tr>
<td>Change Description</td>
<td>1. NRCSD guide rail width change</td>
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<td>Reason for Change</td>
<td>1. ICD update</td>
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<td>DCN Distribution</td>
<td>Current and previous external payload developers; NanoRacks Internal</td>
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<tr>
<td>Originator</td>
<td>Kirk Woellert, External Payloads Manager, NanoRacks</td>
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<td>Reviewers</td>
<td>NanoRacks Flight Safety: Bob Alexander, 7-28-2014</td>
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<td>NanoRacks Avionics: NA</td>
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<td>NanoRacks Operations: NA</td>
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<td>Other: Victor Dube, Quad-M, inc. 8-2-2014</td>
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<tr>
<td>Approval</td>
<td>Mike Johnson, CTO, NanoRacks: 8-11-2014</td>
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3 Change Notifications

3.1 NRCSD Guide Rail Dimensions
The NanoRacks CubeSat Deployer (NRCSD) interior structure has four sets of guide rails which interface to corresponding CubeSat rails. Section 4.5, Figure 5 of the NRCSD ICD Rev 36, depicts the NRCSD guide rails having width of 2.5mm.

![Figure 5 NRCSD Guide Rail Width (+Z view, +Y top).](image-url)
NRCSDs manufactured after June 2014 (NanoRacks CubeSat Mission 2 and thereafter) have guide rail width of 2.25mm as shown in Figure 5 below. There is a difference between the physical envelope and allowable envelope do to the addition of the Keep Out Zone depicted in red. There is no change to the allowable envelope which is denoted in Figure 5 below as dimensions proceeded by an asterisk (*).
Section 4.5, Figure 6 of the NRCSD ICD Rev 36, depicts the NRCSD guide rails having width of 2.5mm.

![Diagram of CubeSat Rail and NRCSD Rails Clearances](image)

Figure 6 CubeSat Rail and NRCSD Rails Clearances (+Z view, +Y top).
NRCSDs manufactured after June 2014 (NanoRacks CubeSat Mission 2 and thereafter) have guide rail width of 2.25mm as shown in Figure 6 below.

Figure 6 CubeSat Rail and NRCSD Rails Clearances (+Z view, +Y top).
Section 4.7, Figure 9 of the NRCSD ICD Rev 36, depicts the NRCSD guide rails having width of 2.5mm.

Figure 9 Roller/Slider Switch NRCSD Geometry.
NRCSDs manufactured after June 2014 (NanoRacks CubeSat Mission 2 and thereafter) have guide rail width of 2.25mm as shown in Figure 9 below.

Figure 9 Roller/Slider Switch NRCSD Geometry.