

Acuity Laser Report

Device : AR700 (16" range)

Notes:

In order to achieve the maximum output rate using the serial port, the following parameters were set:

Parameter	Description
S21	Sample Interval - we have selected the smallest interval permitted
N1	Serial Output Control - Zero based 2 byte binary data
B0	Baud Rate : 230400 baud (maximum permitted)
L2	Background Light Elimination Mode : this is turned off

The following is the dump from the laser using the V1234 command:

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Zero Point: 0

Span Point: 50000

Sample Interval: 21

Analog Output Mode: Zero Based Current

Background Light Elimination: Off

Sampling Mode: On

Serial Mode: RS232

Baud Rate: 230400

Output Data: Off

Error Mode: Code

Sample Priority: Rate

Serial Output Flow Control: Off

Limit 1: 0

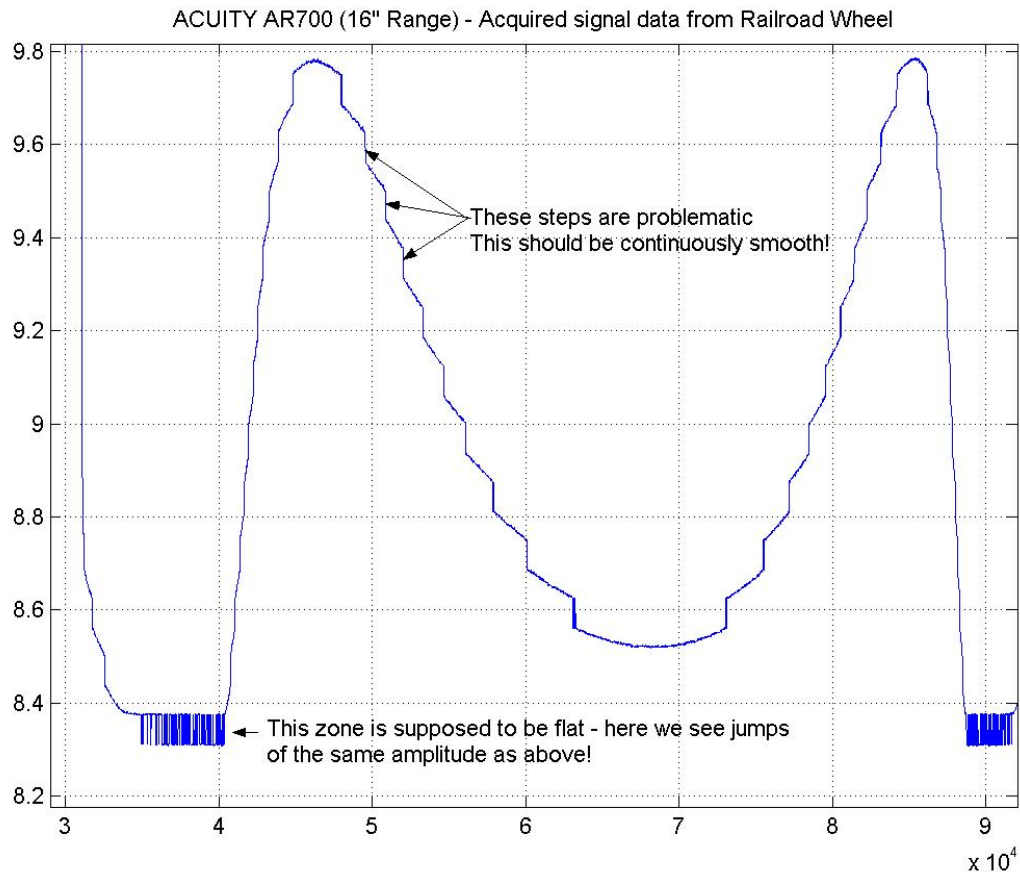
Limit 2: 50000

Exposure Limit: 80

Class 3B: YES

Serial Number: 000052

The following is a figure of acquired signal data from this device:



These jumps (steps) are all around the same amplitude (0.06" or 1.5mm).

I tested this device using slower sample rates – (19200 baud with S200)

I also tried with Background Light Elimination set to ON.

In all cases, I witnessed the same anomaly.