

# Typical Performance Curves

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## SMC10 – Low-Noise Current Source

C-Series Modules – Diode Laser Controller

### Important Notice

These specifications apply to the SMC10-R16A module.  
Information in this document is subject to change without notice.  
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### Document Revision History

<u>Release</u>	<u>Comments</u>
SMC10-SS02-R17A	
SMC10-SS02-R17B	Added figure 12 Added figure 13

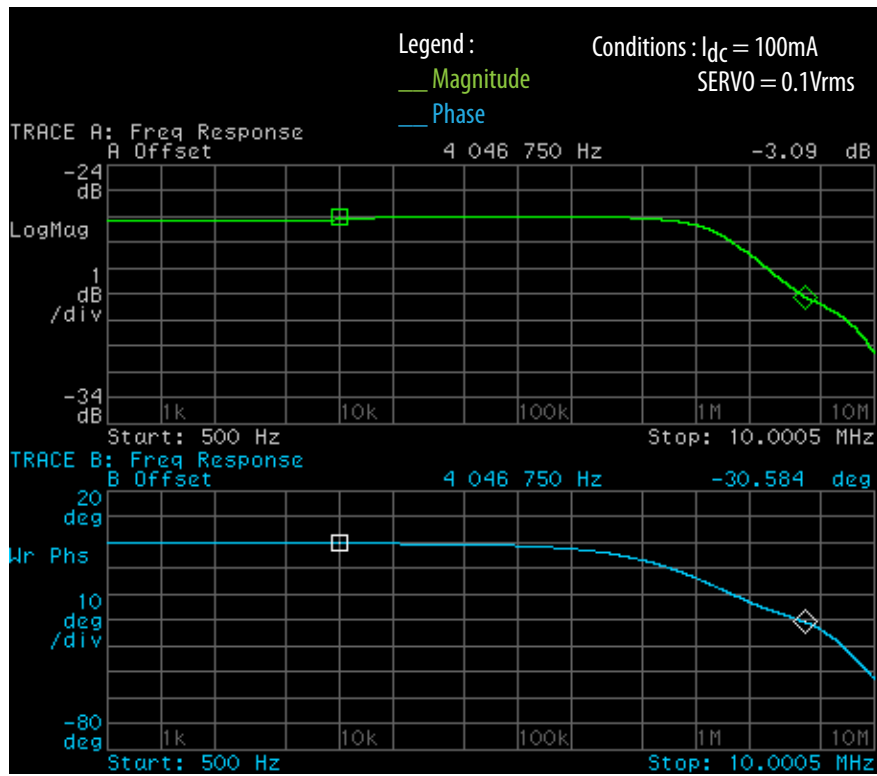


Figure 1: Current Modulation vs. Frequency (SERVO Input)

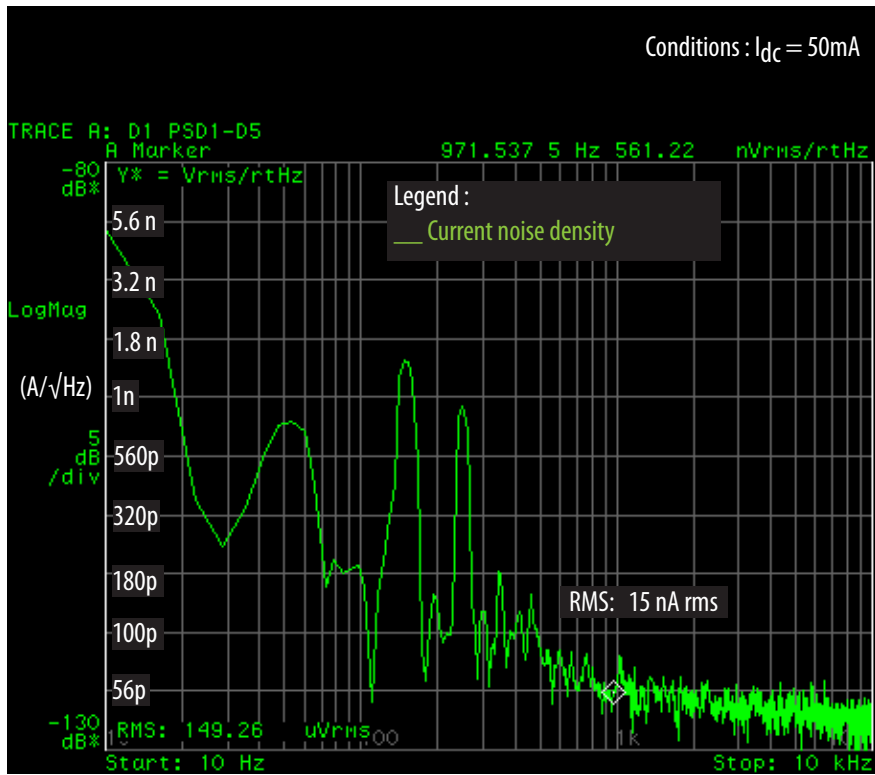


Figure 2: Current Noise Density vs. Frequency for  $I_{DC} = 50\text{ mA}$  (10 Hz–10 kHz)

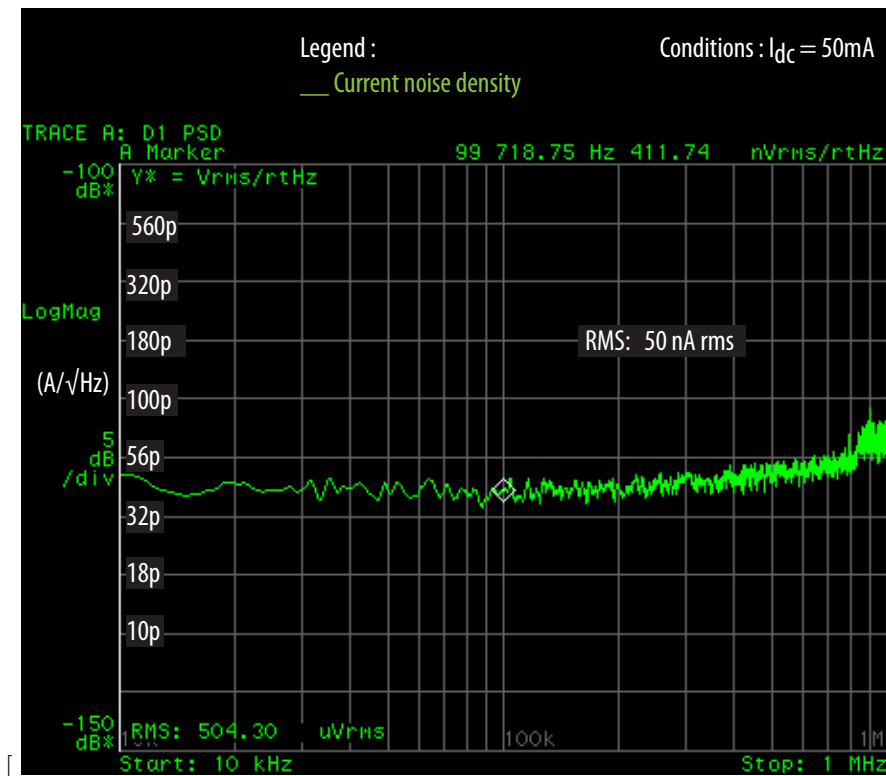


Figure 3: Current Noise Density vs. Frequency for  $I_{DC} = 50\text{ mA}$  (10 kHz–1 MHz)

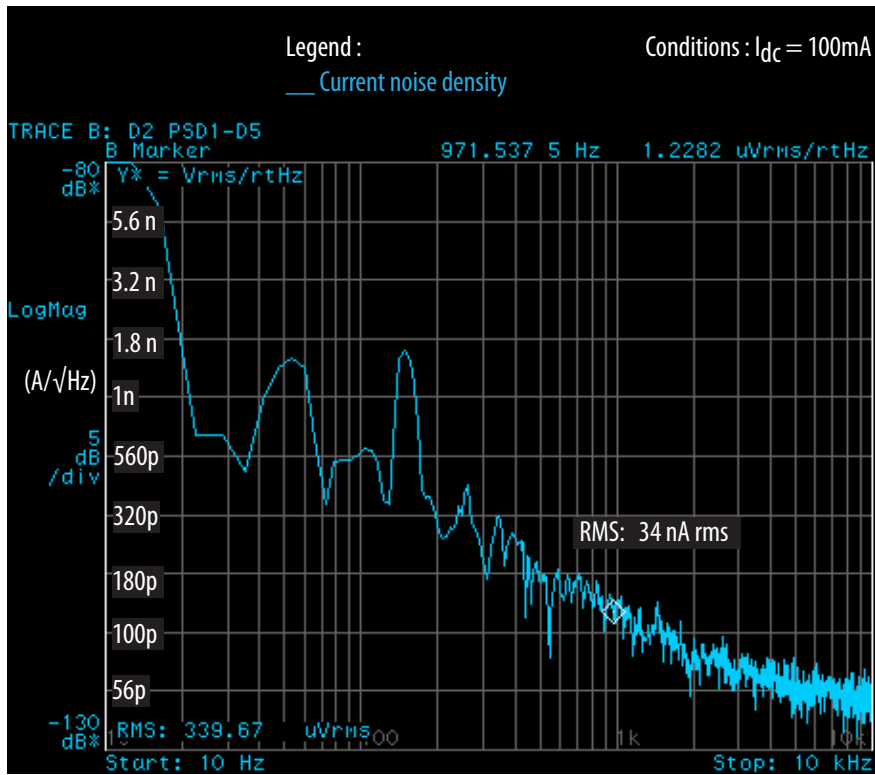


Figure 4: Current Noise Density vs. Frequency for  $I_{DC} = 100\text{ mA}$  (10 Hz–10 kHz)

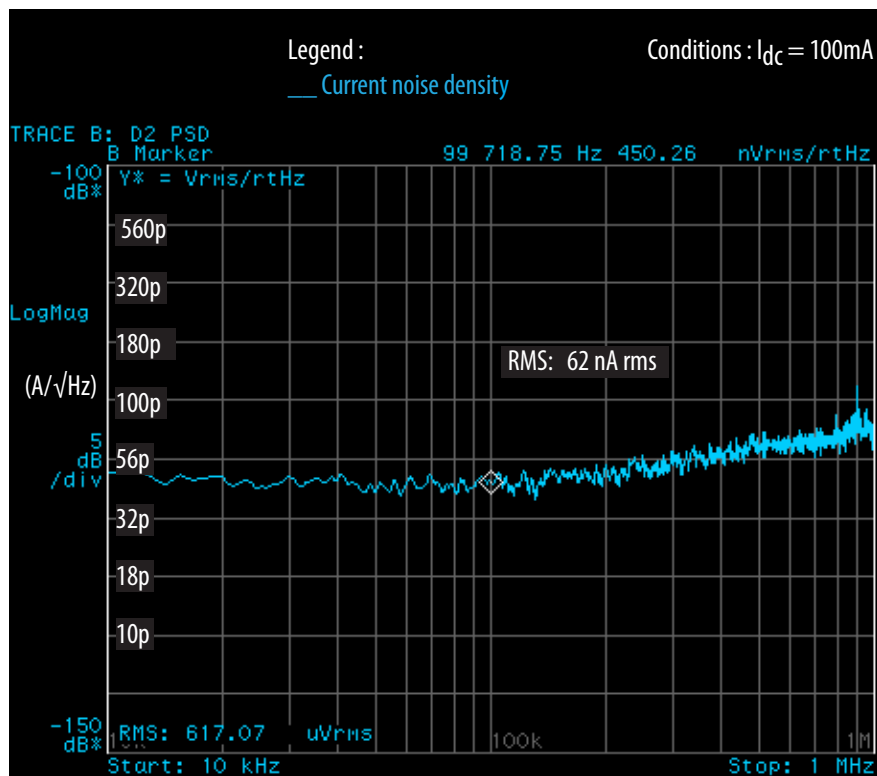


Figure 5: Current Noise Density vs. Frequency for  $I_{DC} = 100\text{ mA}$  (10 kHz–1 MHz)

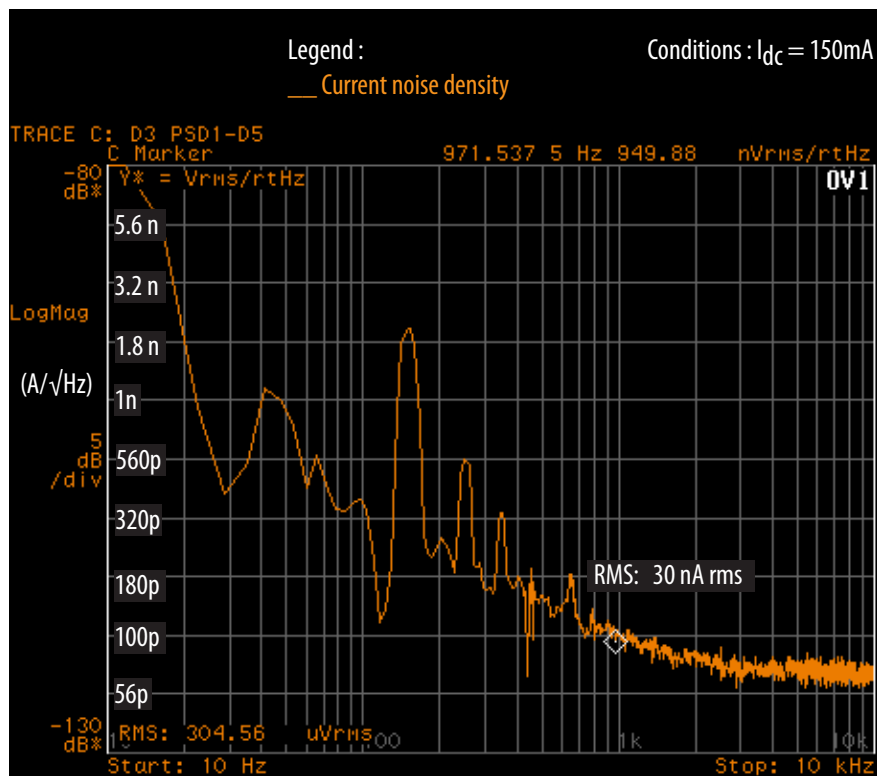


Figure 6: Current Noise Density vs. Frequency for  $I_{DC} = 150\text{ mA}$  (10 Hz–10 kHz)

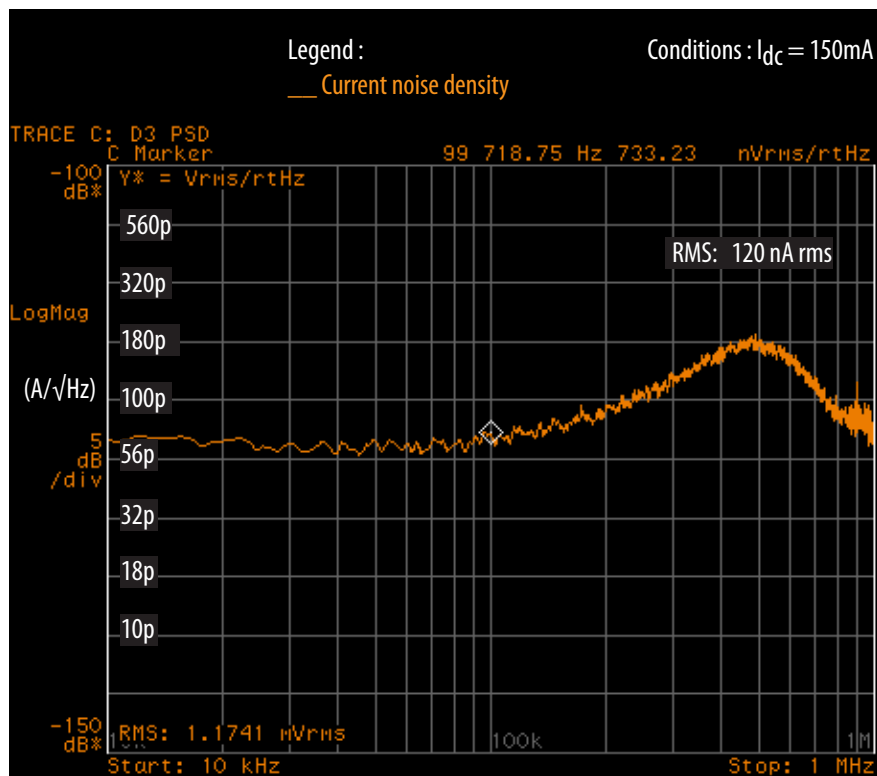


Figure 7: Current Noise Density vs. Frequency for  $I_{DC} = 100\text{ mA}$  (10 kHz–1 MHz)



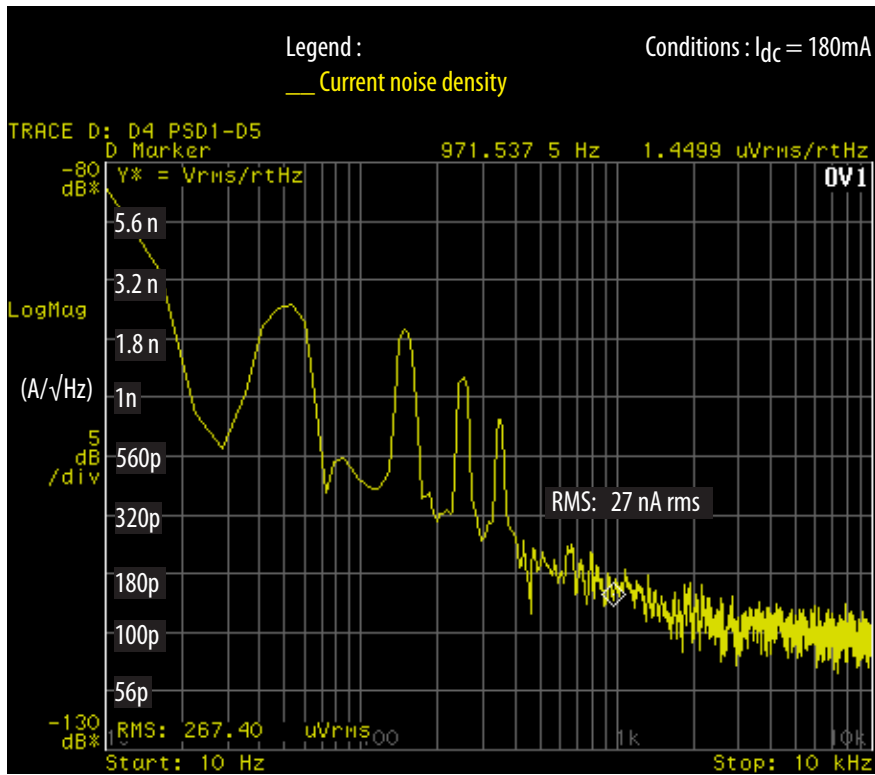


Figure 8: Current Noise Density vs. Frequency for  $I_{DC} = 180\text{ mA}$  (10 Hz–10 kHz)

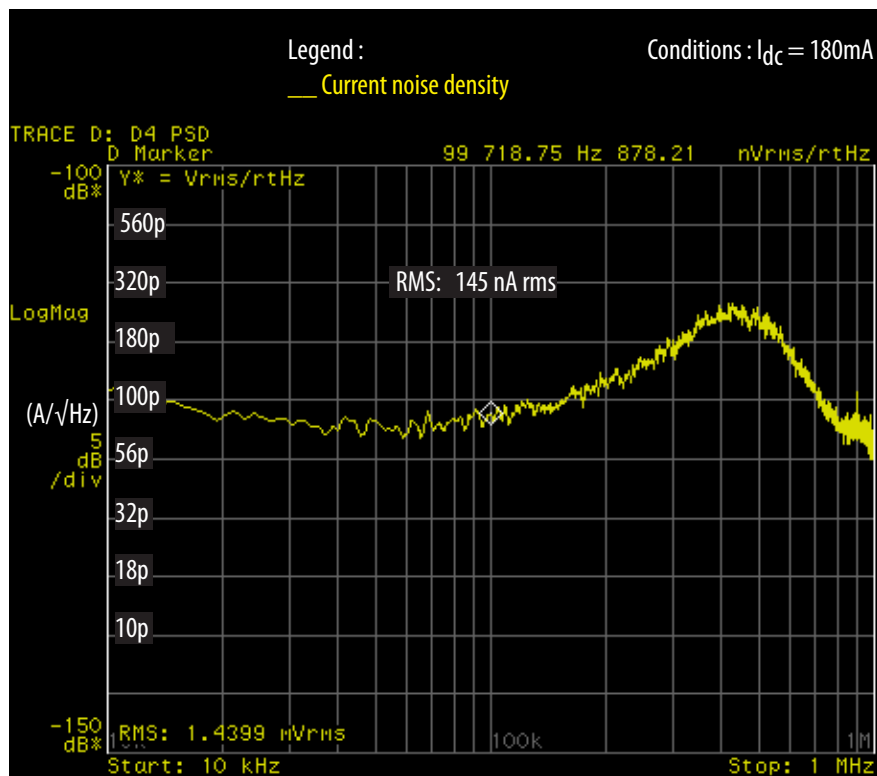


Figure 9: Current Noise Density vs. Frequency for  $I_{DC} = 100\text{ mA}$  (10 kHz–1 MHz)

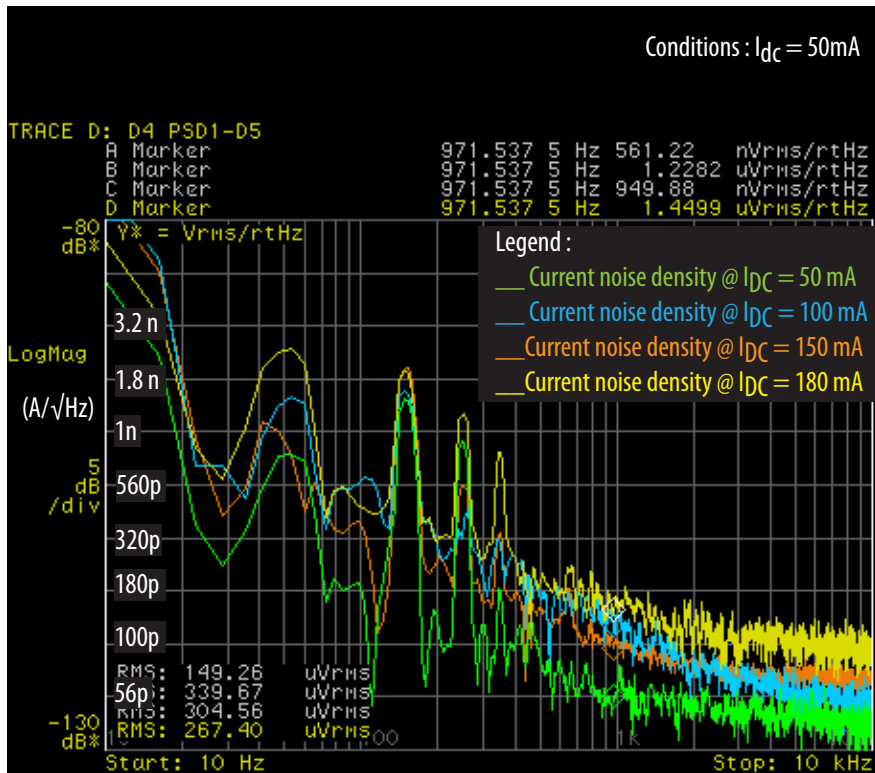


Figure 10: Current Noise Density vs. Frequency (10 Hz–10 kHz)

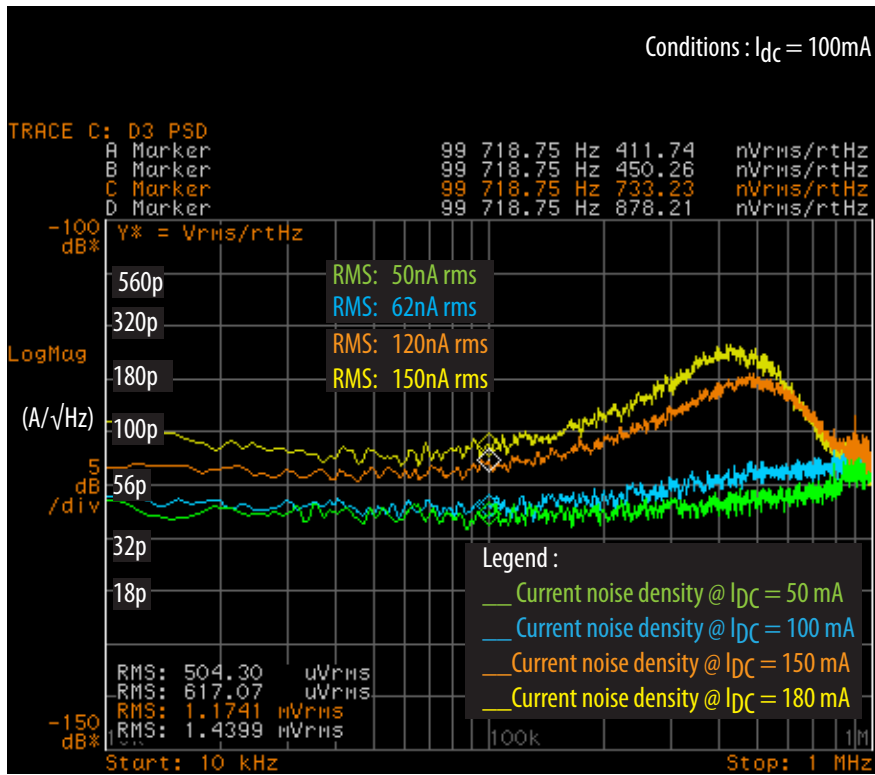


Figure 11: Current Noise Density vs. Frequency (10 kHz–1 MHz)

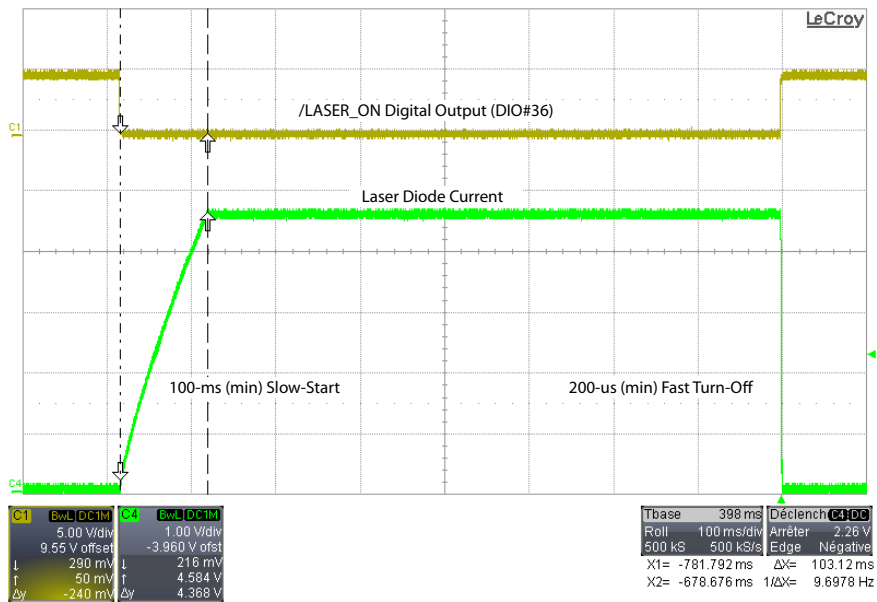


Figure 12: Laser On-Off Sequence

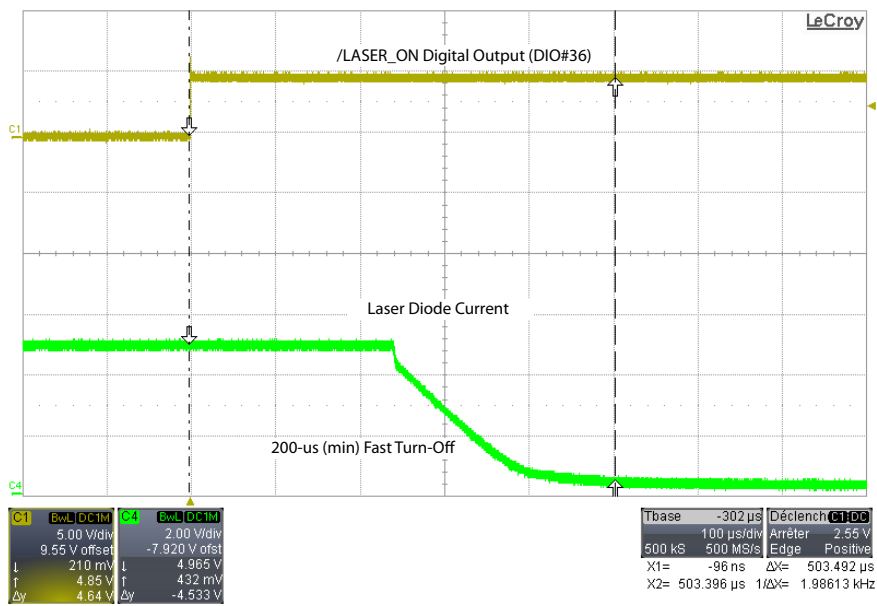


Figure 13: Laser ON-Off Sequence - Detail