

Application Note

AN2001

CoBrite

Typical laser characteristics

E-Mail: info@id-photonics.com

www.id-photonics.com



ID Photonics GmbH, Neubiberg, Germany

V1.1

Content

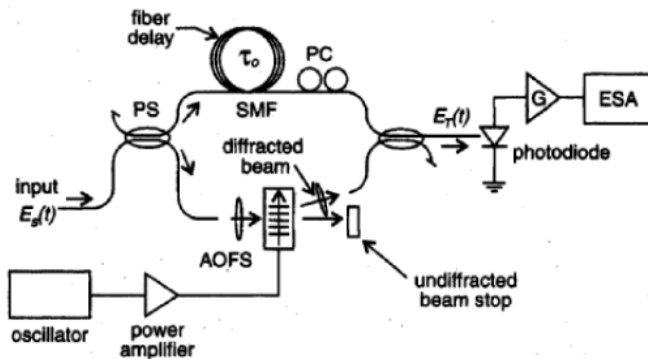
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1 Preface

The following data represents typical data and contains data that might deviate from definitions given in the specification. Thus, these are either non specified values or not guaranteed performance. For guaranteed current specification, please see the latest specification of the product

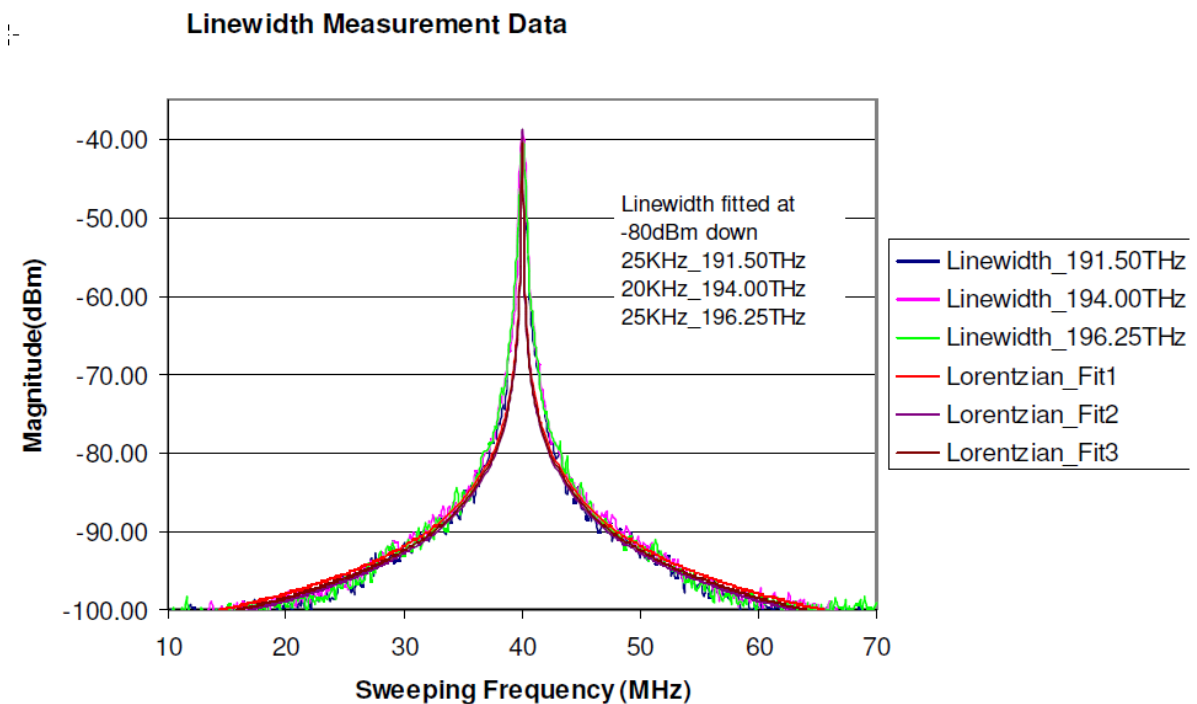
2 Lorentzian Linewidth characteristic

Measured using the delayed self-homodyne method by a Lorentzian least square fit. The Lorentzian linewidth is defined within a 3 μ s time window. Setup:

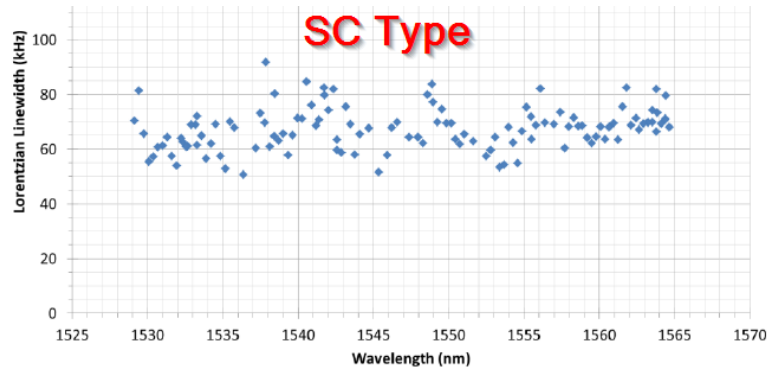


PC – polarization controller
 PS – power splitter
 AOFS – acousto-optic frequency shifter, 40MHz
 ESA – electrical spectrum analyzer

2.1 NC, NL type

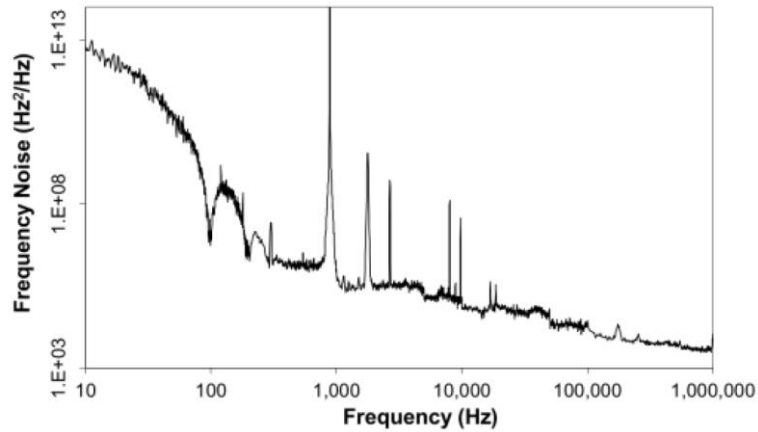


2.2 SC type

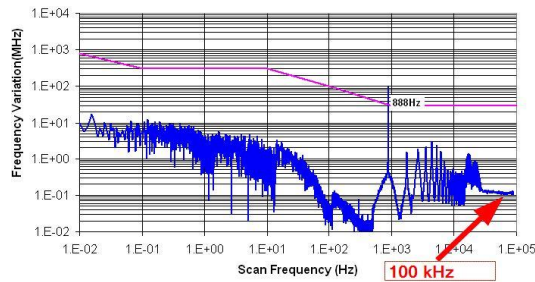


3 Optical Frequency noise

3.1 NC, NL type

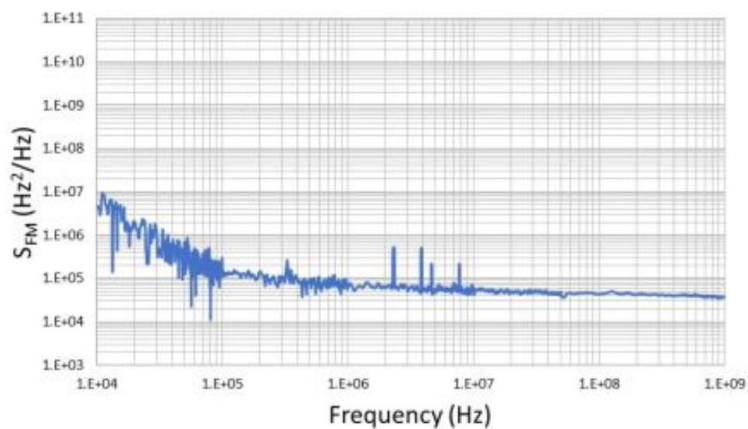


Converted to Frequency noise:



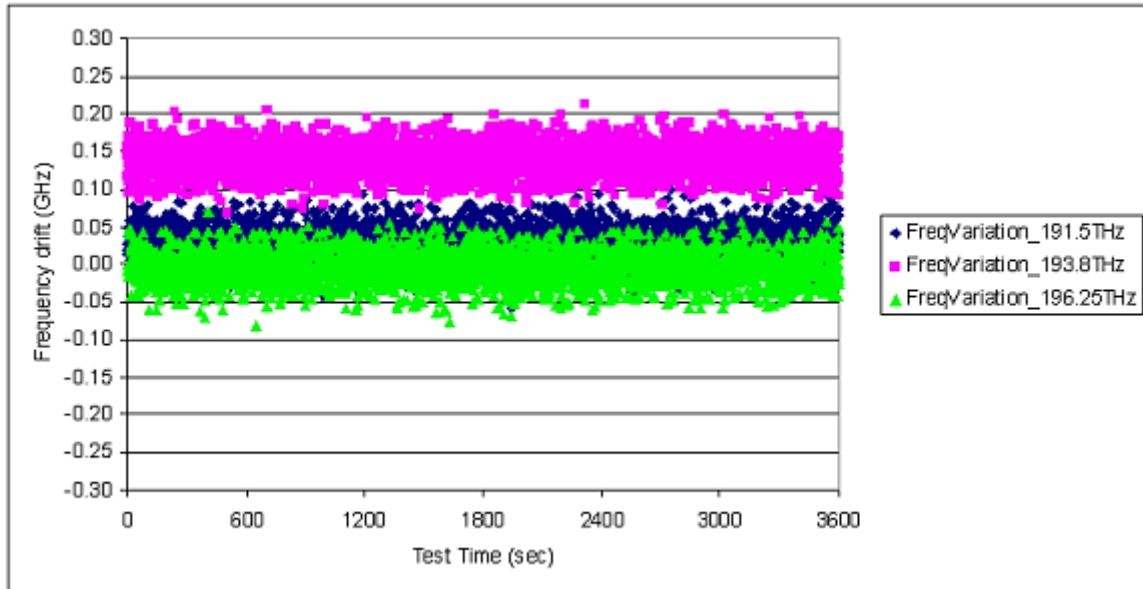
3.2 SC Type

Please note that this chart comprises a factor of Pi (π) compared to the Nx type graph shown before.

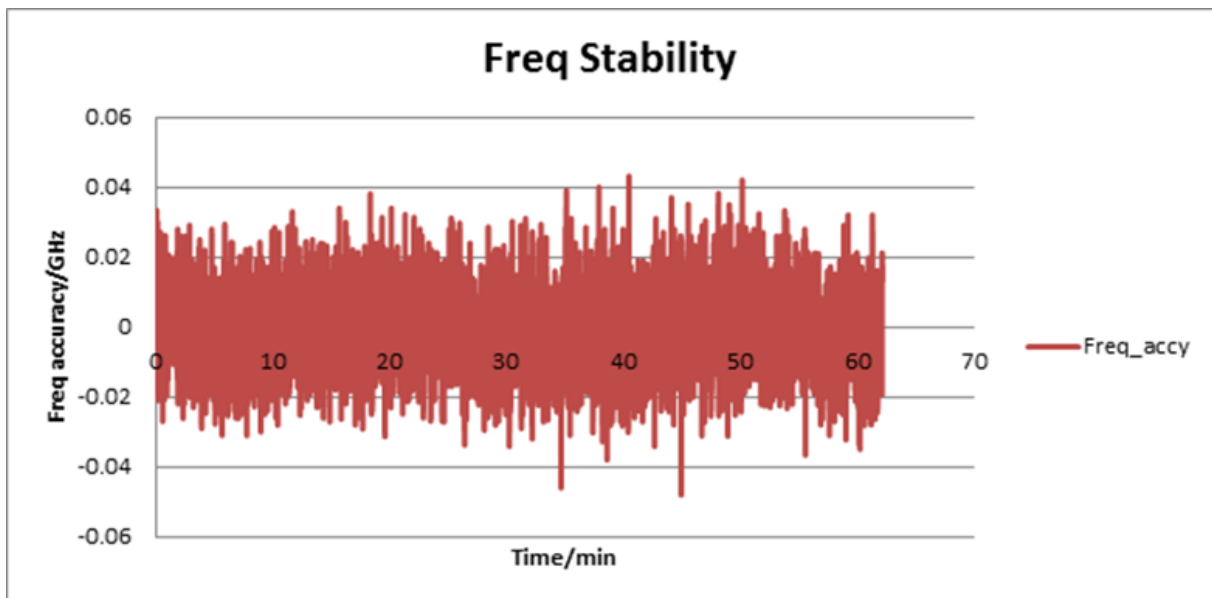


4 Relative Frequency variation over 1hour

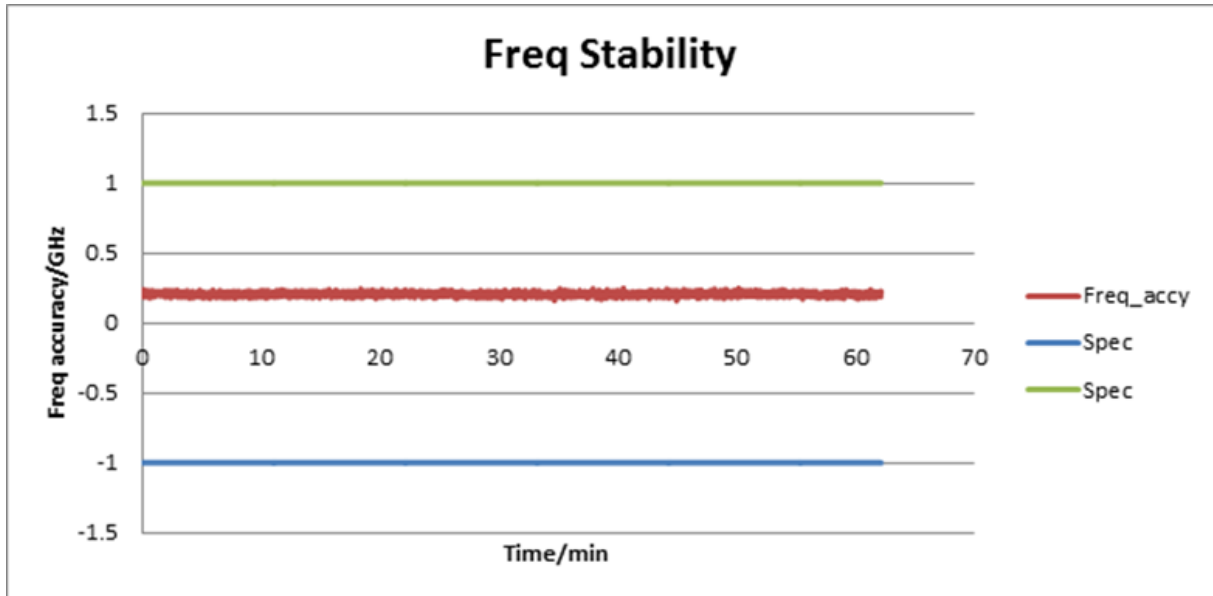
4.1 NC, NL type



4.2 SC type



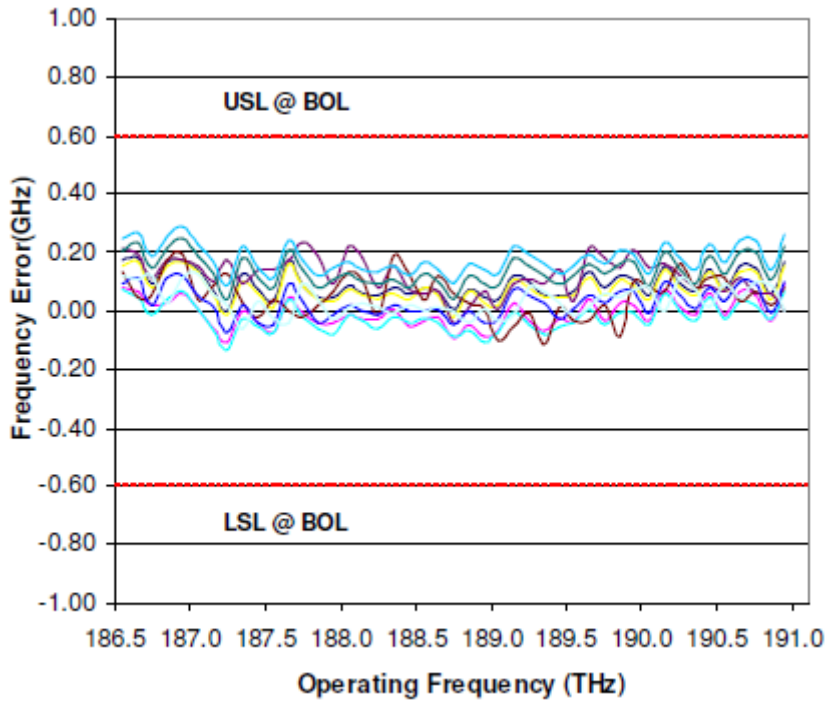
Same data shown with formal specification limit (EOL)



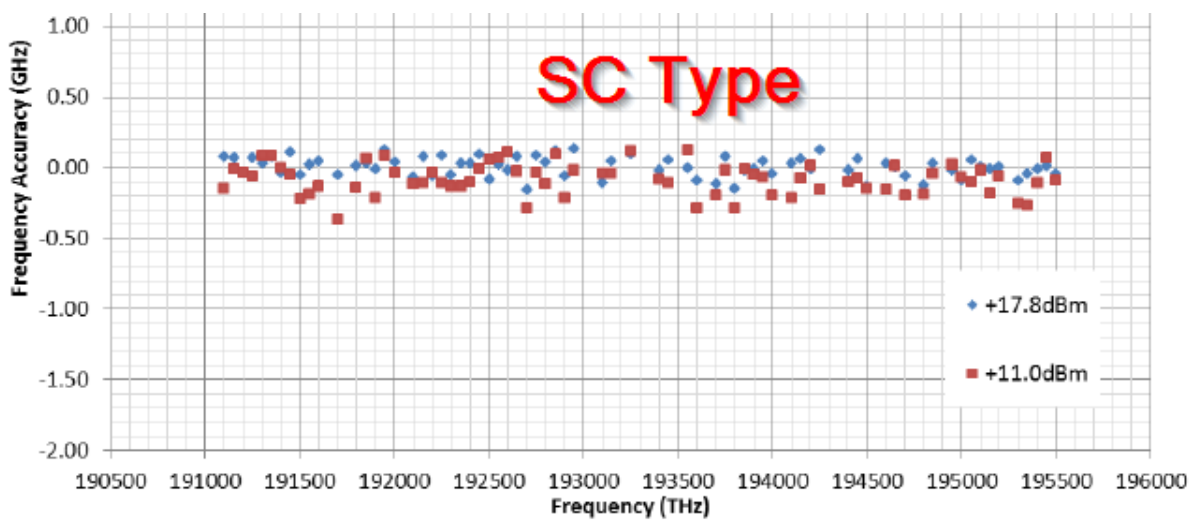
5 Absolute Frequency accuracy

5.1 NC, NL type

Curves are for different chassis temperatures.

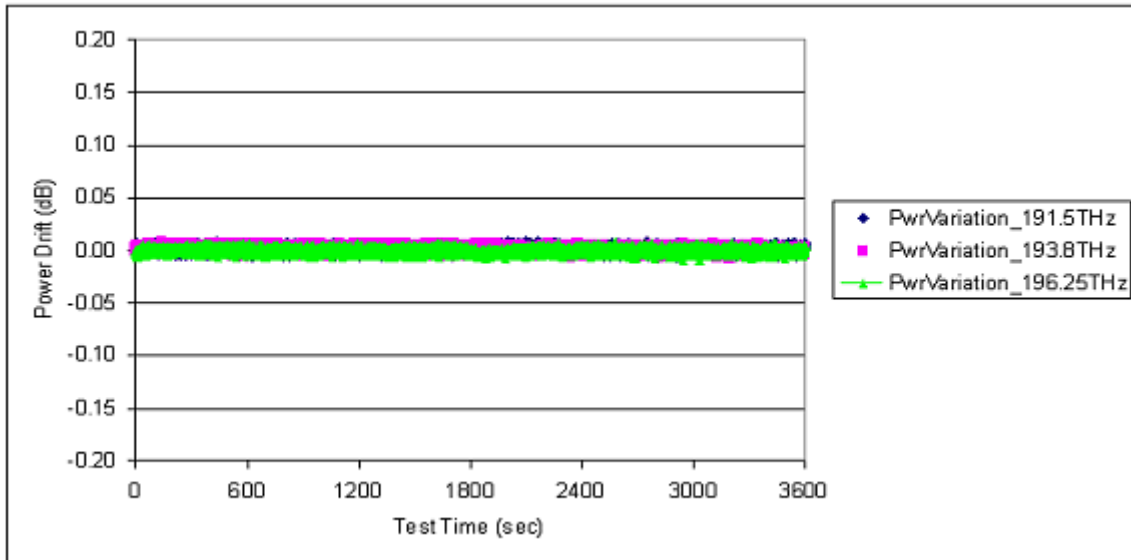


5.2 SC type

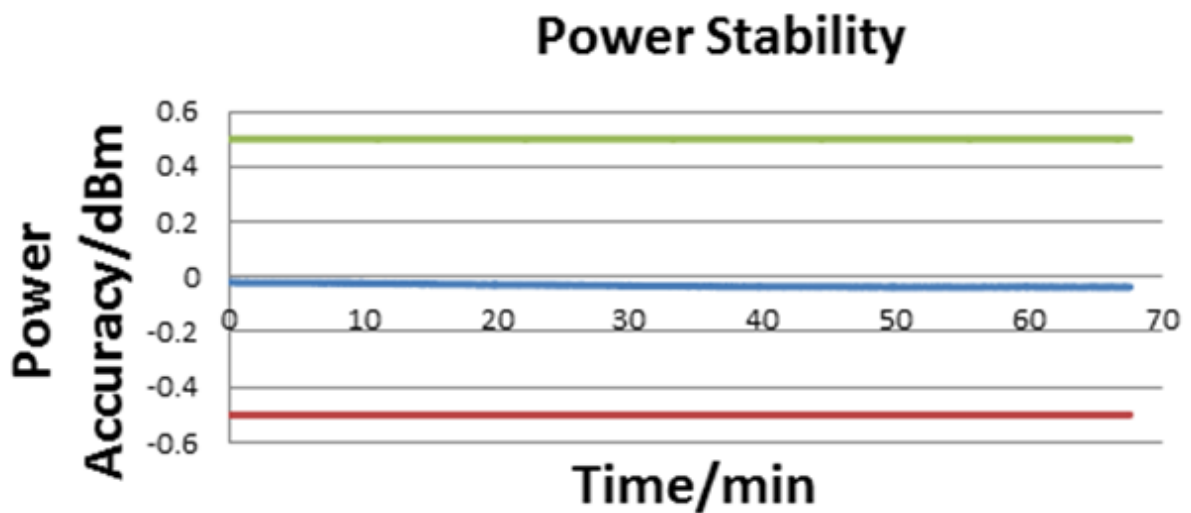


6 Relative Power stability

6.1 NC, NL type



6.2 SC type

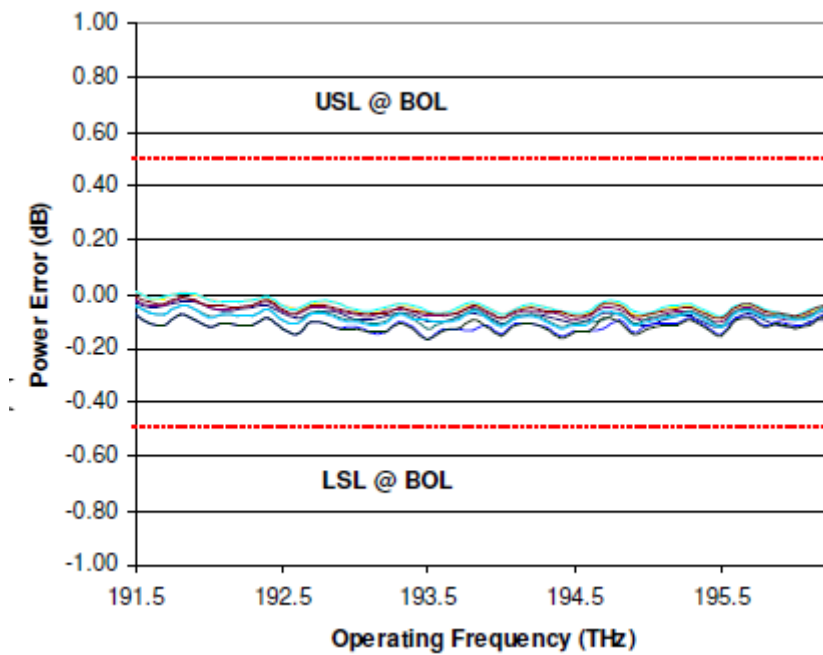


7 Absolute Power accuracy

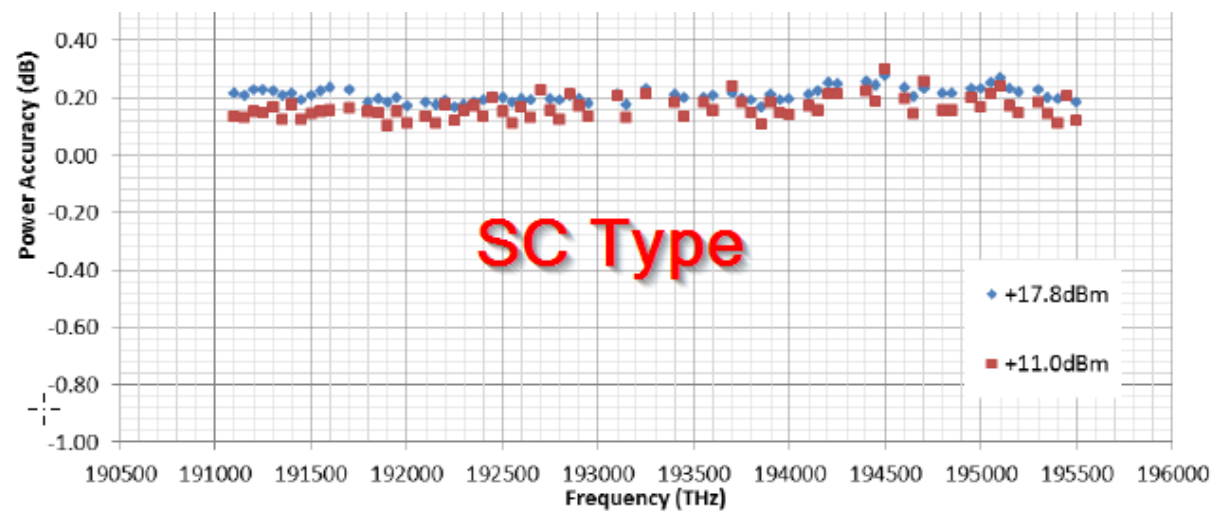
Does not contain optical connector insertion loss variation (= bare fiber out)

7.1 NC, NL type

Lines are for different output powers.

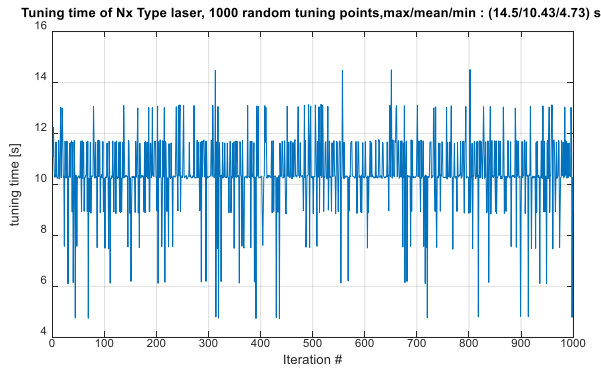


7.2 SC type



8 Tuning Speed

8.1 Nx Type



8.2 SC Type

500 random steps

