Amtest-TM s.r.o.
Svatováclavská 408, 686 01 Uherské Hradiště, Česká Republika
IČ: 26266890, DIČ: CZ26266890
Tel.: +420 572 572 028 Fax: +420 572 544 216
E-mail: supp@amtest-tm.com, Web: www.amtest-tm.com

Microchip 53100 A – Next Generation Phase Noise Analyzer

Rapid, Multi-function, Precision Oscillator Characterization

The 53100A Phase Noise Analyzer measures the amplitude, phase and frequency stability of high-performance RF sources. Carrier frequencies from 1 MHz to 200 MHz are supported. The 53100A tells you everything you need to know about the stability characteristics of your devices, at timescales ranging from femtoseconds to days. From use on a bench-top or embedded into rack-mount ATE systems, the small formfactor and industry-leading measurement speed makes this test set versatile for multiple applications.

Expanding upon the heritage of the 3120A and 51XXA series of instruments, the 53100A makes fast yet accurate single side band (SSB) phase noise and Allan deviation (ADEV) measurements at a fraction of the cost of alternate solutions. Thanks to an improved design and advancements in manufacturing, the 53100A offers improvements in reliability and performance over its predecessor technologies.

Key Features

- Allan deviation (ADEV) typically less than 5E-14 at t=1s
- Modified Allan deviation (MDEV), Hadamard deviation (HDEV), and time deviation (TDEV)
- RMS-integrated time jitter, residual FM, and SSB carrier/noise ratio
- Phase noise and AM noise at offsets from 0.001 Hz to 1 MHz and levels typically below -175 dBc/Hz (10 MHz floor)
- Independent input and reference frequencies from 1 to 200 MHz
- No phase-locking or measurement calibration required
- Single or dual reference oscillator inputs allow cross-correlation measurements
- TSC 51XXA command and data stream emulation reduces the burden of re-writing existing test scripts
- Intuitive Graphical User Interface for easy set-up and monitoring

Link to the datasheet: https://www.microsemi.com/document-portal/doc_download/1244930-53100a-data-sheet

Link to the video presentation: https://vimeo.com/518510312