

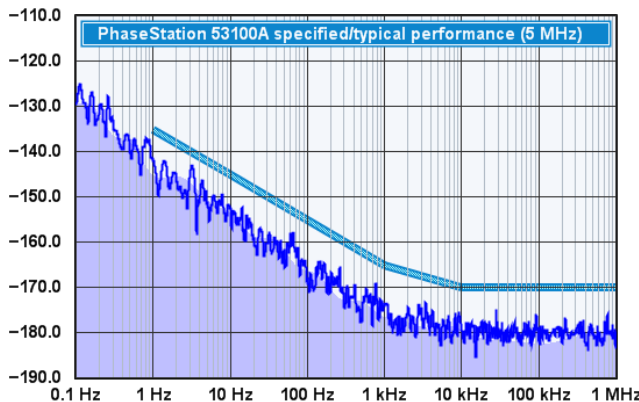


- Measure Phase Noise, AM Noise and Frequency Stability with just a single click – no phase locking or manual calibration required
- Display fractional phase- and frequency-difference charts, RMS integrated jitter, residual FM, SSB carrier/noise ratio
- Single or Dual external reference capability allows cross-correlated auto-cancellation of reference noise

PRELIMINARY SPECIFICATIONS

Input and reference frequency range	1 – 200 MHz												
Input and reference signal levels	-5 dBm to +15 dBm												
Input connectors	2x N-F for DUT and reference; 4x SMA-F for multichannel expansion												
Offset frequency range	0.1 Hz – 1 MHz												
Residual Allan deviation (specified/typical)	t=1s 7E-14/5E-14 t=1000s 5E-16/2E-16												
Phase noise measurement floor (specified/typical), 5 MHz carrier	<table border="0"> <tr> <td>1 Hz</td><td>-135 / < -142</td> <td>10 Hz</td><td>-145 / -155</td> <td>100 Hz</td><td>-155 / < -165</td> </tr> <tr> <td>1 kHz</td><td>-165 / < -175</td> <td>10 kHz</td><td>-170 / < -175</td> <td>>100 kHz</td><td>-170 / < -175</td> </tr> </table>	1 Hz	-135 / < -142	10 Hz	-145 / -155	100 Hz	-155 / < -165	1 kHz	-165 / < -175	10 kHz	-170 / < -175	>100 kHz	-170 / < -175
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1 kHz	-165 / < -175	10 kHz	-170 / < -175	>100 kHz	-170 / < -175								
Phase noise measurement floor, 100 MHz carrier	<table border="0"> <tr> <td>1 Hz</td><td>-120 / -122</td> <td>10 Hz</td><td>-130 / -135</td> <td>100 Hz</td><td>-145 / -147</td> </tr> <tr> <td>1 kHz</td><td>-160 / -162</td> <td>10 kHz</td><td>-170 / -172</td> <td>>100 kHz</td><td>-170 / < -172</td> </tr> </table>	1 Hz	-120 / -122	10 Hz	-130 / -135	100 Hz	-145 / -147	1 kHz	-160 / -162	10 kHz	-170 / -172	>100 kHz	-170 / < -172
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1 kHz	-160 / -162	10 kHz	-170 / -172	>100 kHz	-170 / < -172								
RMS jitter measurement floor (5 MHz carrier, 0.1 Hz – 1 MHz)	Typically less than 50 fs												
Spurious responses (5 MHz – 100 MHz)	Less than -100 dBc (< -120 dBc typical)												
Frequency counter display	13+ digits/second, up to 17 digits maximum precision												
Phase stability (5 MHz)	Less than 10 ps/hour after 2 hour warmup, < 2 ps/hour typical												
Real-time update rate	FFT segments updated continuously at 5+ FPS in 10 kHz-1 MHz range												
Options (available Q4/2019)	Ultra-low Phase Noise and ADEV reference oscillators 200 MHz - 3 GHz down-converter												
Reference oscillator inputs	Dual independent reference inputs permit use of two independent, non-phase locked reference oscillators with self-cancellation of reference phase noise												
Instrument platform	USB 2.0, Windows 7 or later												
Data formats	Straightforward ASCII text files (.TIM, .TXT, .CSV) used for all data												
Warmup and stabilization time	Typically <10 min at +25°C												
Power	90-264 VAC, < 20W												
Operating temperature	+15°C to +35°C operating, -20°C to +50°C storage												

PhaseStation™ 53100A MADE IN USA



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