

ultra low phase noise reference oscillator

low phase noise : < -153 dBc @ 10 kHz

jitter : 3 fs (1 kHz – 10 MHz)

+ 10 ... + 28 dBm output power

internal / external reference frequency

optional GPS controlled reference



General specifications:

Standard frequencies	100 / 500 / 800 / 1000 / 1300 / 3000 / 6000MHz (any custom frequency up to 50 GHz)																
frequency stability	$\leq \pm 2 \times 10^{-7}$ (- 20 ° C to + 70 ° C)																
Frequency tuning range	$\pm 1...2$ ppm (0...10V)																
Output power	+ 10 dBm . . 28 dBm																
Typical phase noise @ 1300 MHz	<table border="1"> <tbody> <tr> <td>1Hz</td> <td>≤ -60</td> </tr> <tr> <td>10Hz</td> <td>≤ -90</td> </tr> <tr> <td>100Hz</td> <td>≤ -115</td> </tr> <tr> <td>1kHz</td> <td>≤ -142</td> </tr> <tr> <td>10kHz</td> <td>≤ -154</td> </tr> <tr> <td>100kHz</td> <td>≤ -159</td> </tr> <tr> <td>1MHz</td> <td>≤ -170</td> </tr> <tr> <td>10MHz</td> <td>≤ -170</td> </tr> </tbody> </table>	1Hz	≤ -60	10Hz	≤ -90	100Hz	≤ -115	1kHz	≤ -142	10kHz	≤ -154	100kHz	≤ -159	1MHz	≤ -170	10MHz	≤ -170
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RMS Jitter [100Hz ... 10 MHz]	< 10 fs																
external reference input	0 ... + 10 dBm (can be locked to any custom frequency)																
optional multiplied output frequencies	N, 2N, 4N, 5N, 8N, 24N, 30N																
Output VSWR	2.0 :1																
Harmonics	< - 35 dBc																
Spurious	<< - 60 dBc																
RF output connectors	SMA Female																
RF input connectors (ext. reference)	SMA Female																
DC supply	+15V DC / 2A																
AC supply	110V – 230 V AC																

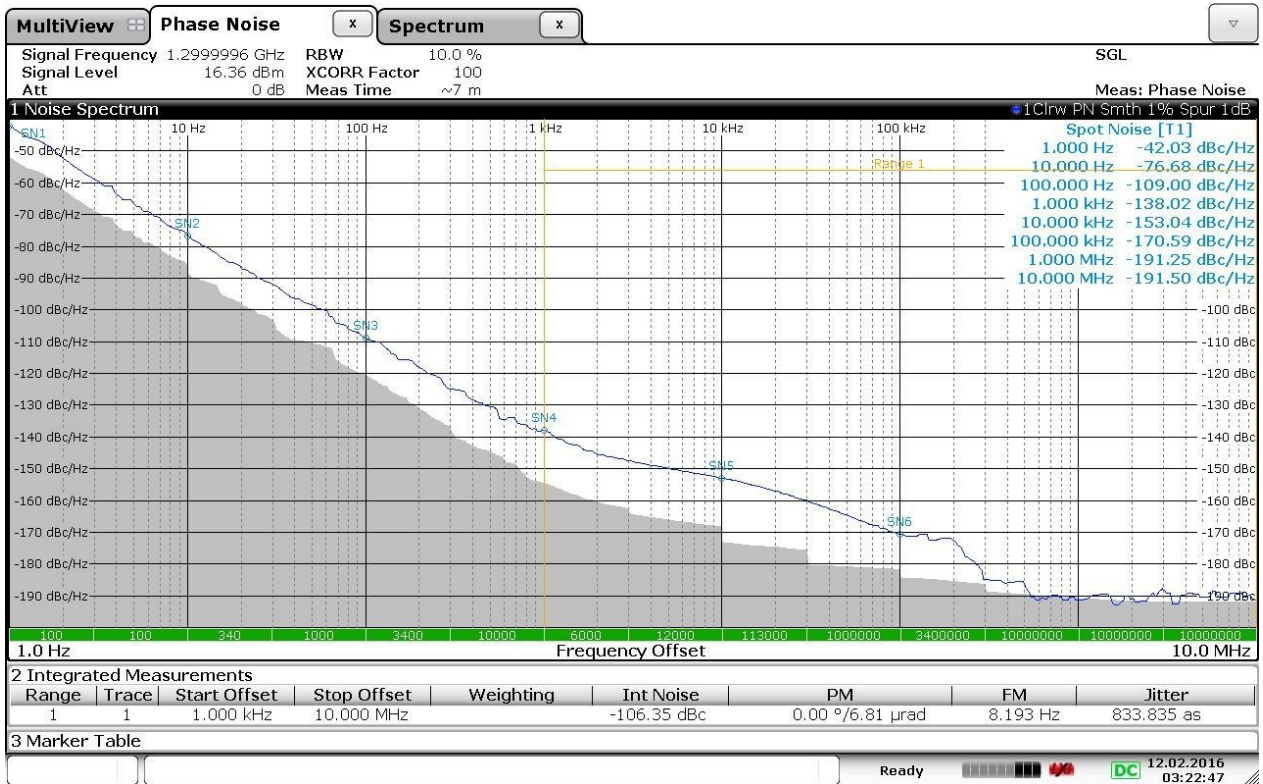
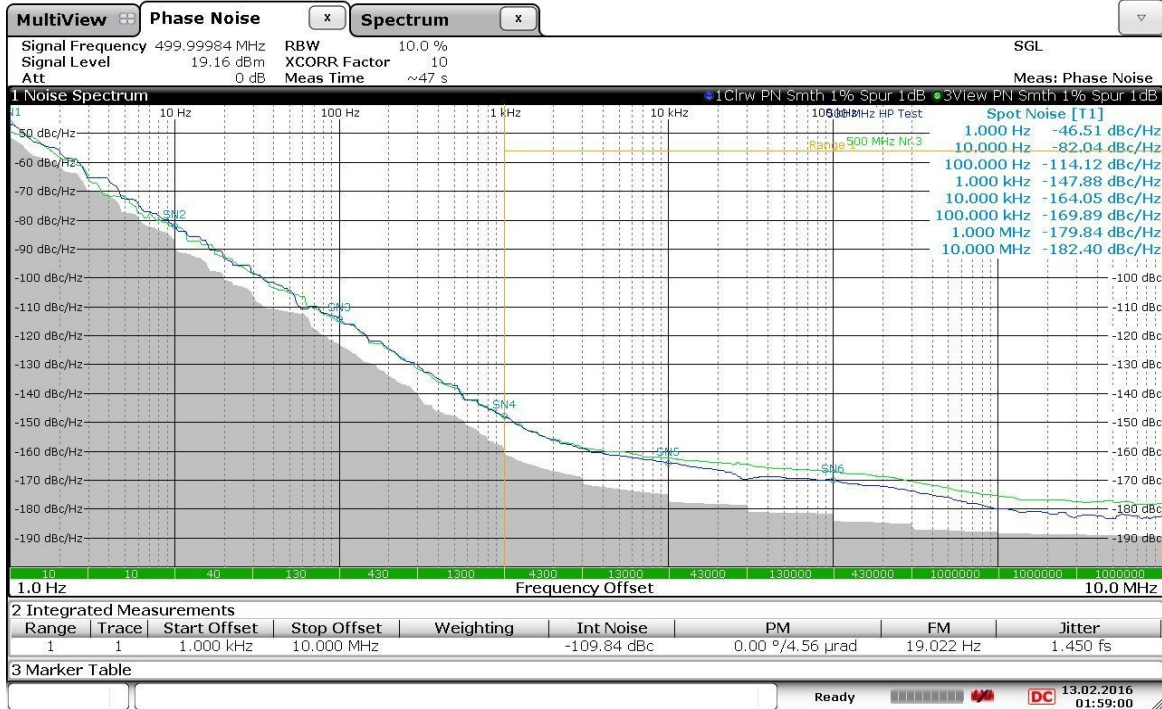
Environmental Specification:

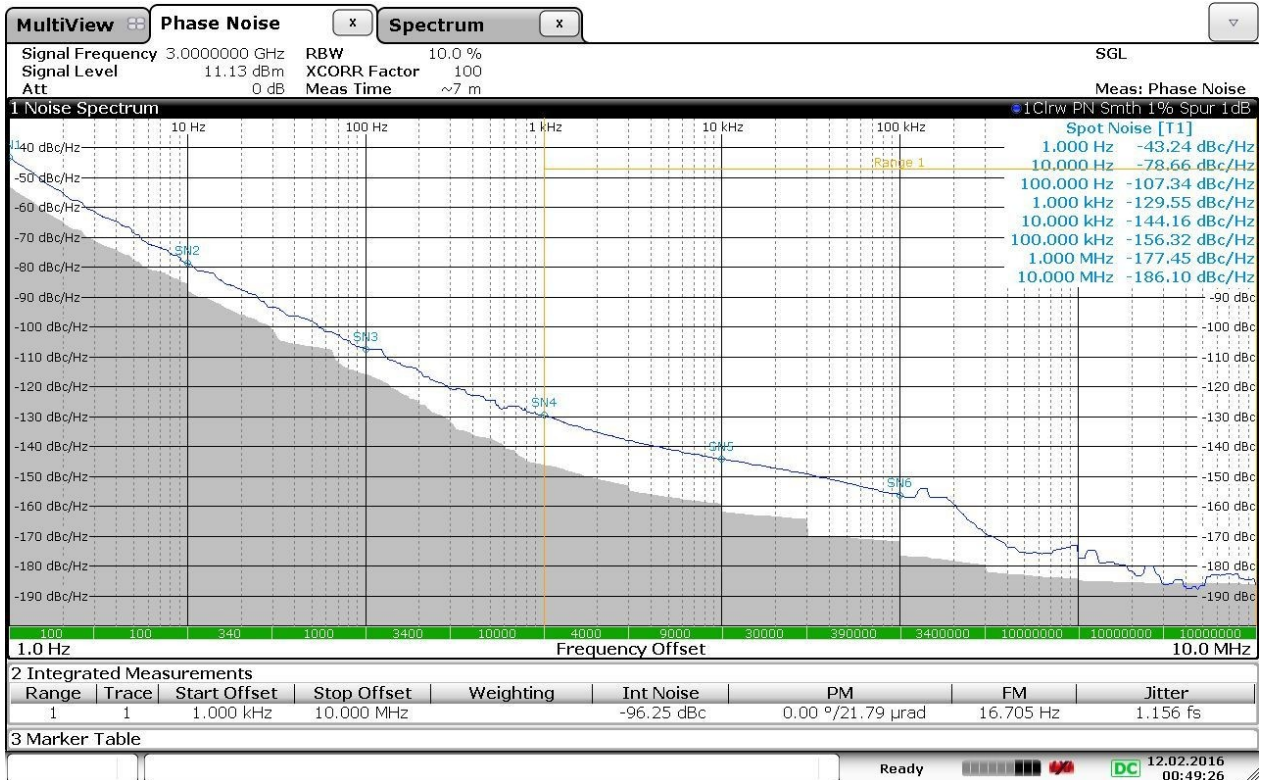
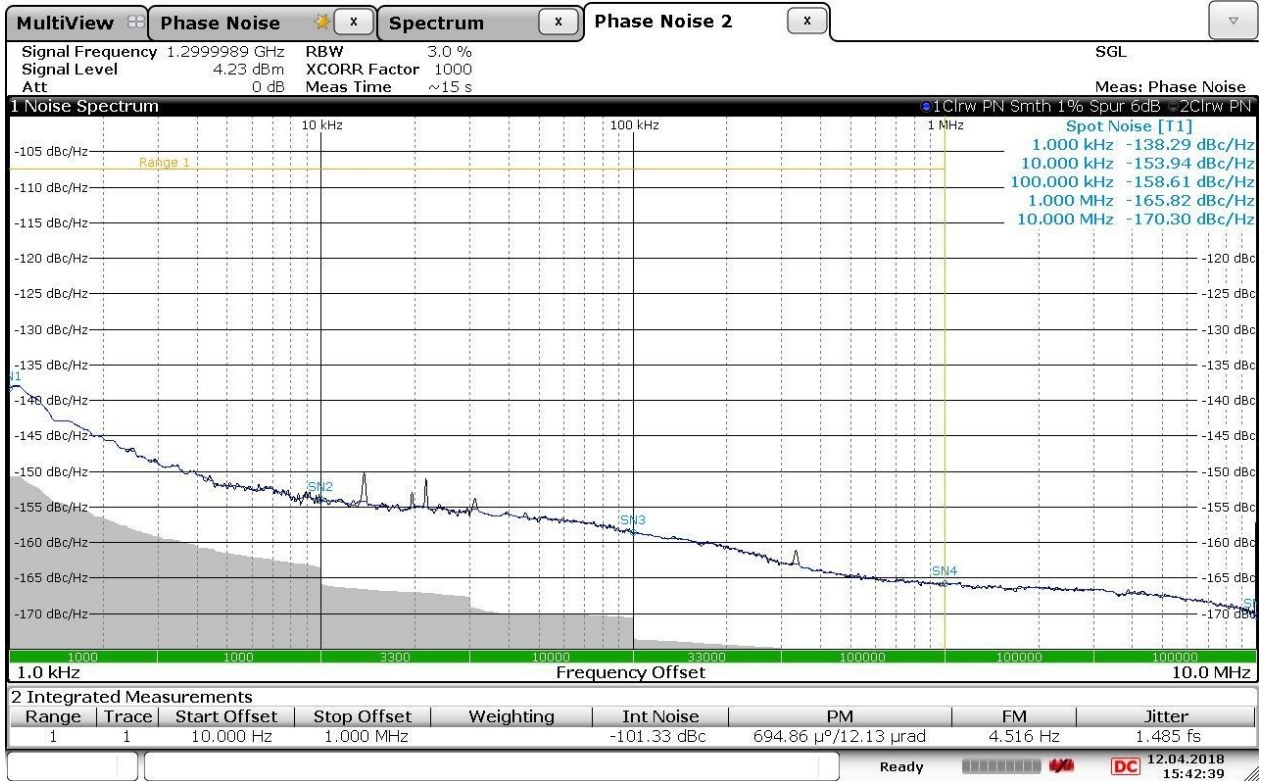
Operating Temperature	0 to + 55degC
Storage Temperature	- 40 to + 85degC

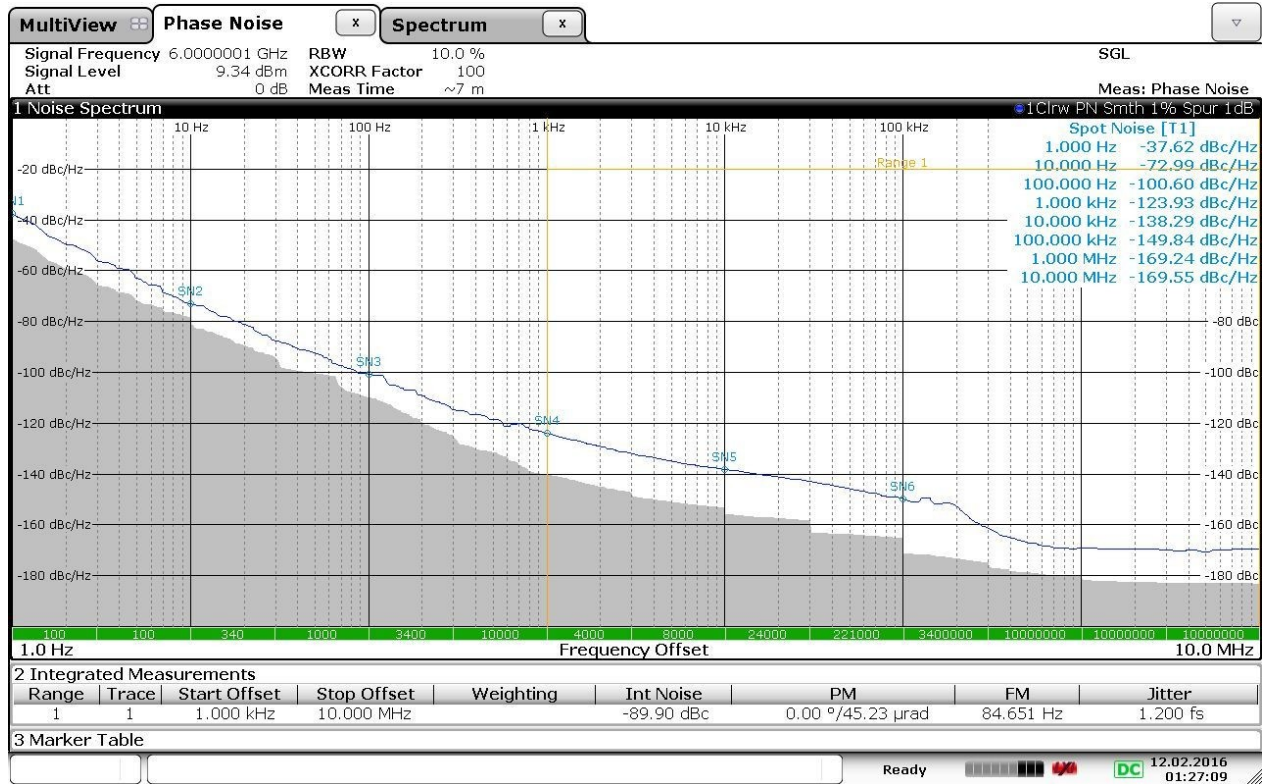
Options:

internal 10 MHz GPS controlled reference oscillator
multiple power splitted outputs

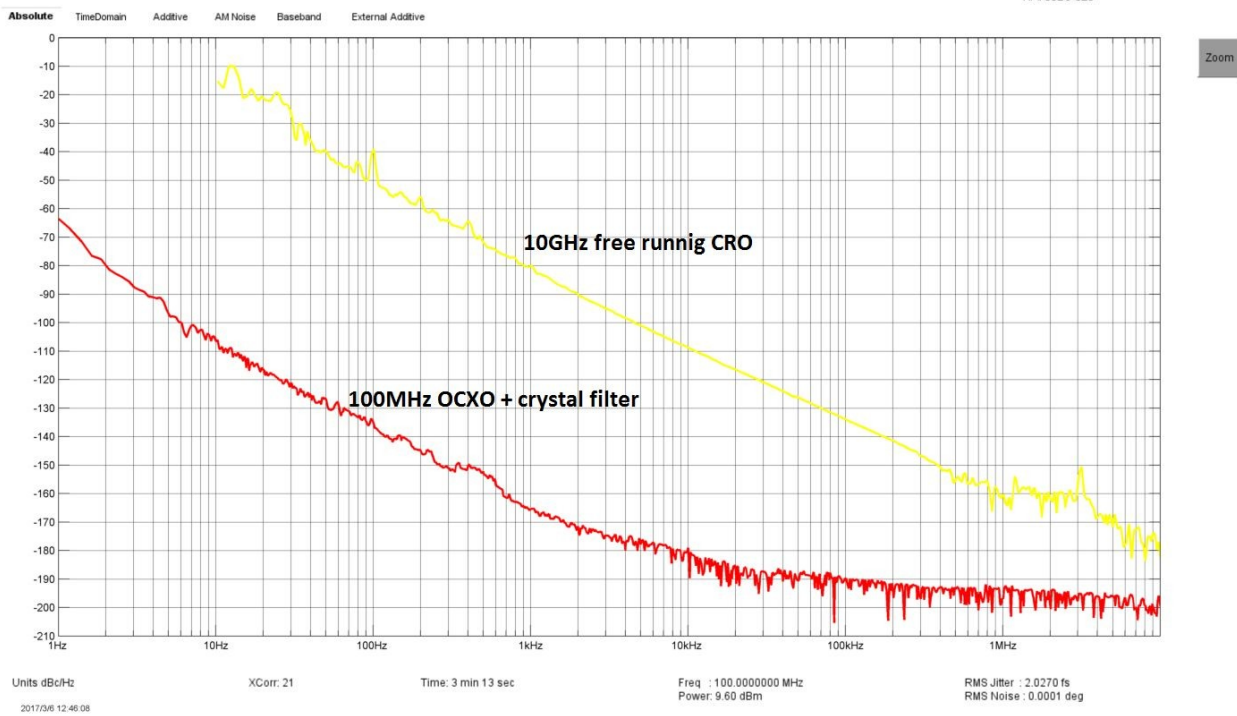
Typical phase noise plot of multiplied signals from 500MHz - 6GHz:







Holzworth Instrumentation
HA7062C-020



Version	Date	Changes
1.0	12.11.18	initial release