

# PN9100B ultra low jitter Clock Synthesizer

## 2 MHz to 18 GHz

### Usage in Cross-Correlation



The PN9100B can be used in a cross correlation system such as the DCNTS. Due to the Cross-correlation averages, the noise floor limit can be improved by a factor 5 LOG (N).

Typical performance below describes the Phase Noise floor limits due to the PN9100B used in a dual configuration.

### Phase Noise performance

First line is the number of cross-correlation averages

With XCOR	1	10	130	1300	13000	100000	100000	
dBc/Hz vs offset (Hz)	1	10	100	1k	10k	100k	1M	Floor
10 MHz	-109	-142	-162	-179	-189	-190	-190	-190
100 MHz	-89	-123	-143	-164	-177	-183	-185	-190
1 GHz	-69	-103	-123	-143	-157	-163	-165	-187
2 GHz	-63	-97	-117	-143	-151	-157	-159	-180
4 GHz	-57	-92	-111	-131	-145	-151	-153	-175
8 GHz	-50	-85	-106	-126	-139	-145	-147	-170
10 GHz	-48	-83	-104	-124	-137	-143	-143	-165
14 GHz	-46	-79	-99	-120	-134	-142	-143	-165
18 GHz	-44	-78	-99	-119	-132	-137	-137	-160

please add +5dB for guaranteed performance

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