

LOW PHASE NOISE FIXED-FREQUENCY SIGNAL SOURCE



1 to 52 GHz

Low phase noise
154 × 96 × 33 mm package
Factory-selected fixed frequency
100 MHz clock output

The OPDRO-140 is a low phase noise fixed-frequency signal source with a fixed output frequency selected within 1 to 52 GHz. Reference frequency: 10 MHz. Output power: ≥ 10 dBm. Dimensions: 154 × 96 × 33 mm. Operating temperature: -20 to +50 °C.

TECHNICAL INFORMATION

OPDRO-140

Property	Value
Output frequency range	1-52 GHz; fixed frequency selected when ordering
Output power	≥10 dBm
Spurious suppression	≥70 dBc
Harmonic suppression	≥20 dBc
Reference frequency	10 MHz
Reference input power	+5 to +10 dBm
Clock output	100 MHz; ≥0 dBm
Clock phase noise	-125/-155/-172/-174/-176 dBc/Hz at 100 Hz offset/1 kHz/10 kHz/100 kHz/1 MHz offsets
Supply voltage/current	≤+12 V / 1.2 A (as specified)
Operating temperature	-20 to +50 °C
Storage temperature	-55 to +85 °C
Dimensions	154 × 96 × 33 mm
Frequency selection	Factory-selected fixed output frequency; not a tunable synthesizer
Fractional-frequency components	≥60 dBc suppression: 1/2 at 16-32 GHz; 1/4, 2/4, 3/4 and 5/4 at 32-52 GHz

Specification Notes

Output frequency is set at the factory to a specified value between 1 and 52 GHz and cannot be adjusted after manufacture. The source note states output power is greater than 10 dBm by default, while the specification table states ≥10 dBm. Other output-power requirements must be confirmed when ordering.

TECHNICAL INFORMATION

OPDRO-140 | Phase Noise (dBc/Hz)

Output Frequency	100 Hz	1 kHz	10 kHz	100 kHz	1 MHz
1 GHz	-108	-133	-135	-135	-140
5 GHz	-96	-120	-126	-126	-140
10 GHz	-88	-113	-120	-120	-140
20 GHz	-80	-104	-113	-113	-134
44 GHz	-72	-97	-106	-106	-130

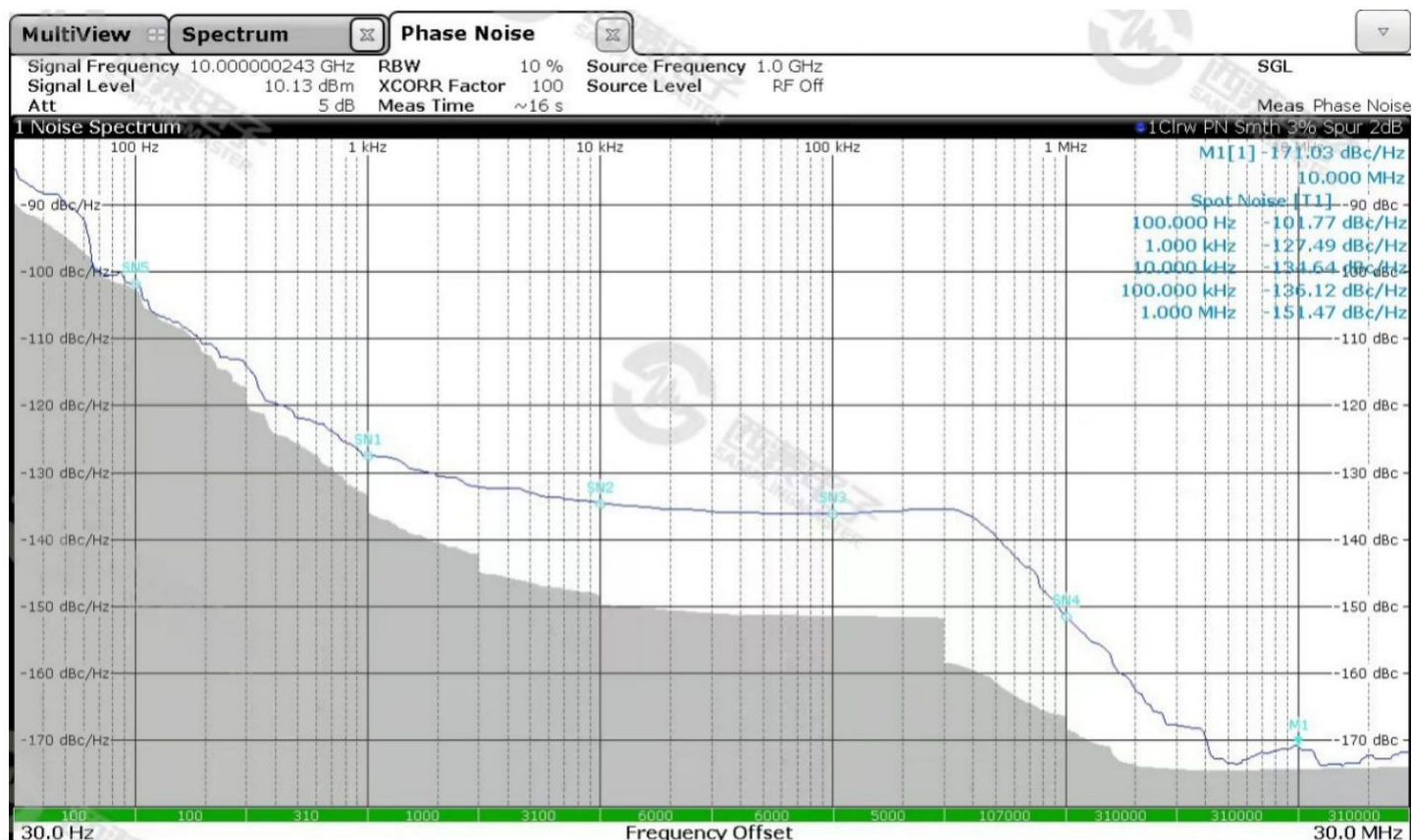
Column headings specify frequency offset from the carrier. Output frequency is listed in the first column. Values and limit signs follow the source tables.

Ordering Information

Ordering Code / Field	Description
OPDRO-140-XXXX-10	Standard phase-noise version
XXXX	Output frequency: an integer multiple of the input reference frequency.
10	Default output-power code: 10 dBm

MEASUREMENT CURVES

10 GHz Phase Noise Measurement



Source measurement example. Curves represent the illustrated test conditions.