

MODEL HX4920

20GHz Frequency Downconverter

HX4920

4GHz - 20GHz

÷4 Downconverter

ULTRA LOW PHASE NOISE

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- HA7062B Frequency Extension
- ANSI z540 Calibration Standard
- 4GHz to 20GHz Input Range
- 1GHz to 5GHz Output Range
- -135 dBc/Hz Additive Phase Noise
- Maintains signal power level

SUMMARY

The Holzworth HX4920 Frequency Downconverter adds high frequency phase noise measurement capability to the HA7062B phase noise analyzer. When used in conjunction with the Holzworth HA7000 Series Analyzers, the HA7062B can measure DUT phase noise up to 20GHz.

The HX4920 has an additive phase noise floor of -135dBc/Hz at 10kHz offset across the entire operating range, which maintains signal integrity of high performance DUTs. ANSI traceable z540.1 calibration of every HX4920 and HA7062B delivered guarantees consistent, accurate measurements.

SPECIFICATIONS¹

PARAMETER	MIN	TYP	MAX	UNITS	COMMENTS
Input Frequency	4		20	GHz	50 ohms
Input Power	4	7	10	dBm	50 ohms
Output Power	6	8	10	dBm	50 ohms
Phase Noise (Additive)		-135		dBc/Hz	Input Referred, 10kHz offset
DC Supply	9	12	15	V _{DC}	±10%, 100mA
Input RF Connector	SMA Plug, Female				
Output RF Connector	SMA Jack, Male				
DC Connector	SMB Jack, Male				
Housing Dimensions (LxWxH)	2" x 1.625" x 0.5" (50.8mm x 41.3mm x 12.7mm)				

¹ Specifications are subject to change per the discretion of Holzworth Instrumentation, Inc.

ANSI z540.1 Calibrated

RoHS Compliant

HOLZWORTH INSTRUMENTATION, INC BOULDER, COLORADO Email: sales@holzworth.com HX4920 Apr2014



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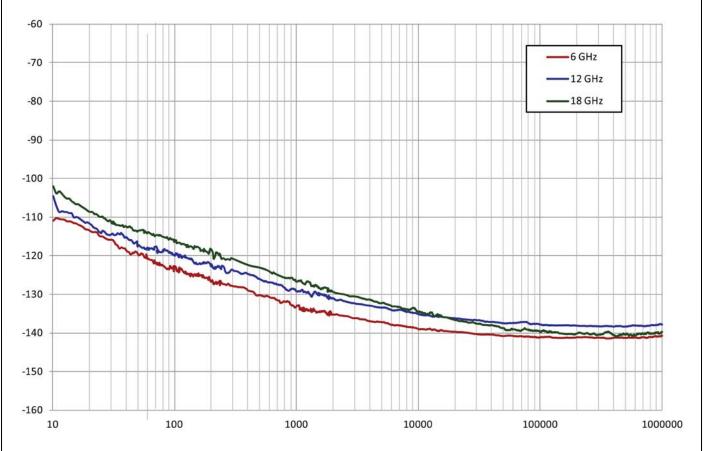
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HX4900 PERFORMANCE DATA

The HX4900 Series Downconversion Modules are designed to be used as frequency extensions for the Holzworth HA7062B Phase Noise Analyzer. These down conversion modules establish the overall phase noise test floor of the cross correlation phase noise analyzers, based on their additive phase noise performance.

Model No.	DUT Frequency Range	Additive Phase Noise		
HX4920	4GHz – 20GHz	-135 dBc/Hz, Input Referred, 10kHz offset		

The figure below demonstrates the additive phase noise performance of the HX4900 Series prototype modules. **NOTE:** The plots in the figure below represent the phase noise floor of the HX4920 at the DUT frequencies listed in the legend.



All sales inquires and/or technical questions should be directed to the Holzworth Instrumentation sales department.

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