

- HA7062C Frequency Extension
- ANSI z540 Calibration Standard
- 4GHz to 26.5GHz Input Range
- -135 dBc/Hz Noise Floor (1x unit)
- < -160 dBc/Hz Noise Floor (2x units)
- Maintains signal power level



## SUMMARY

The Holzworth HX4920 Frequency Downconverter adds high frequency phase noise measurement capability to the HA7062C phase noise analyzer. When used in conjunction with the Holzworth HA7000 Series Analyzers, the HA7062C can measure DUT phase noise up to 26.5GHz.

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 HA7062C delivered guarantees consistent, accurate measurements.

## SPECIFICATIONS <sup>1</sup>

PARAMETER	MIN	TYP	MAX	UNITS	COMMENTS
Input Frequency	4		26.5	GHz	50 ohms
Input Power	4	7	10	dBm	50 ohms
Output Power	6	8	10	dBm	50 ohms
Phase Noise (Additive) 1x HX4920 unit 2x HX4920 units		-135 < -160		dBc/Hz dBc/Hz	Input Referred, 10kHz offset Input Referred, 10kHz offset
DC Supply	9	12	15	V <sub>DC</sub>	±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)				

<sup>1</sup> Specifications are subject to change per the discretion of Holzworth Instrumentation, Inc.

# ANSI z540.1 Calibrated

**RoHS Compliant**

#### HX4900 PERFORMANCE DATA

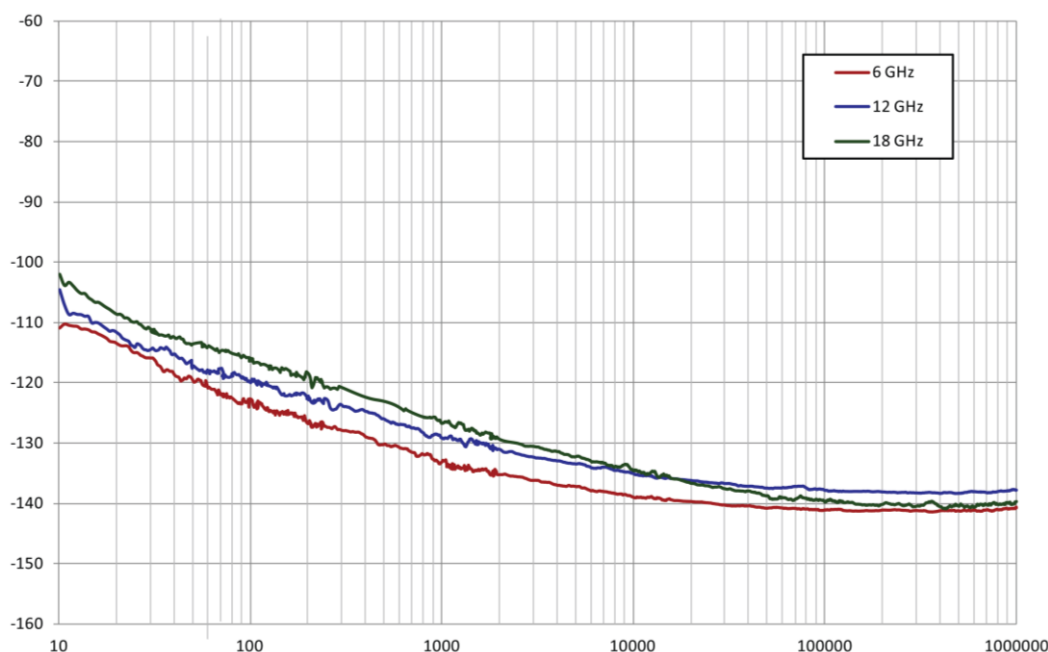
The HX4900 Series Downconversion Modules are designed to be used as frequency extensions for the Holzworth HA7062C Phase Noise Analyzer. These down conversion modules establish the overall phase noise test floor of the cross correlation phase noise analyzers, based on their additive phase noise performance.

Model No.	DUT Frequency Range	Additive Phase Noise
<b>HX4920</b>	4GHz – 26.5GHz <sup>2</sup>	-135 dBc/Hz, Input Referred, 10kHz offset <sup>3</sup>
<b>HX4920-2</b>	4GHz – 26/5GHz <sup>2</sup>	< -160 dBc/Hz, Input Referred, 10kHz offset <sup>3</sup>

<sup>2</sup> ANSI z540.1 calibration covers 4GHz to 20GHz. Measurements are accurate to 22GHz, but not NIST traceable

<sup>3</sup> Using a pair of HX4920 Downconverters (PN: HX4920-2) provides 20dB measurement noise floor improvement with HA7000C Series.

The figure below demonstrates the additive phase noise performance of the HX4900 Series modules. **NOTE:** The plots in the figure below represent the phase noise floor of the test system (when using 1x HX4920) for the test frequencies listed. Using 2x HX4920 units will provide a noise floor of approximately -168dBc/Hz.



All sales inquiries and/or technical questions should be directed to the Holzworth Instrumentation sales department:

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