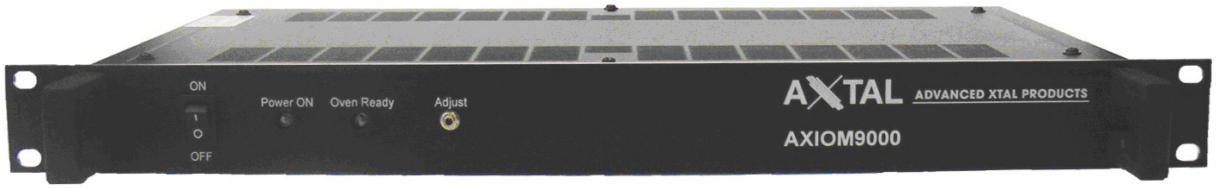
AXTAL ADVANCED XTAL PRODUCTS
a Q-TECH Company

FREQUENCY REFERENCE UNITS
9000 Series - 19” Rack Modules



Model	AXIOM9000 Very High Stability Ultra-Low Noise Reference (D)OCXO	AXDO9000 AXIOM9000 Reference with integrated low-noise distribution amplifier	AXGPS9000 GPS-disciplined Ultra-Low Noise OCXO Frequency Reference	AXRB9000 Very High Stability Ultra-Low Noise Rubidium Frequency Reference
Stability / Phase noise at 10 MHz [dBc/Hz]	2E-12 1 s -110 1 Hz 5E-12 10 s -140 10 Hz 8E-12 100 s -157 100 Hz 1E-11 1E3 s -167 1 kHz 5E-11 1E4 s -170 10 kHz 1E-10 1E5 s -170 100 kHz	2E-12 1 s -110 1 Hz 5E-12 10 s -140 10 Hz 8E-12 100 s -150 100 Hz 1E-11 1E3 s -160 1 kHz 5E-11 1E4 s -165 10 kHz 1E-10 1E5 s -165 100 kHz	8E-12 1 s -110 1 Hz 1E-11 10 s -140 10 Hz 1E-11 100 s -160 100 Hz 4E-12 1E3 s -170 1 kHz 1E-12 1E4 s -173 10 kHz 1E-13 1E5 s -173 100 kHz	1E-11 1 s -100 1 Hz 3E-12 10 s -140 10 Hz 1E-12 100 s -155 100 Hz 1E-12 1E3 s -165 1 kHz 1E-12 1E4 s -170 10 kHz 1E-12 1E5 s -170 100 kHz
Features	▪ Very High Stability ▪ Ultra-Low Phase Noise ▪ Very Low Aging ▪ Up to 3 isolated outputs for frequency distribution ▪ Cascadable with AXDA9000 distribution amplifier	▪ Very High Stability ▪ Ultra-Low Phase Noise ▪ Very Low Aging ▪ 4 to 16 isolated outputs for frequency distribution	▪ GPS-disciplined Very High Long-term Stability ▪ Ultra-Low Phase Noise ▪ 10 MHz & 1PPS Output ▪ RS-232 Interface / NMEA-0183 ▪ Cascadable with AXDA9000/9100 distribution amplifiers	▪ Very High Long-term Stability ▪ Ultra-Low Phase Noise ▪ 1PPS & 10 MHz distribution amplifiers integrated ▪ External 1PPS disciplining ▪ RS-232 Interface for Monitoring ▪ Cascadable with AXDA9000/9100 distribution amplifiers
Operation	AC Supply 100 ~ 240 V (47 ~ 63 Hz) / Operating temperature range -10°C ~ +60°C			
Size	Slim 19” Rack - 1 HU			

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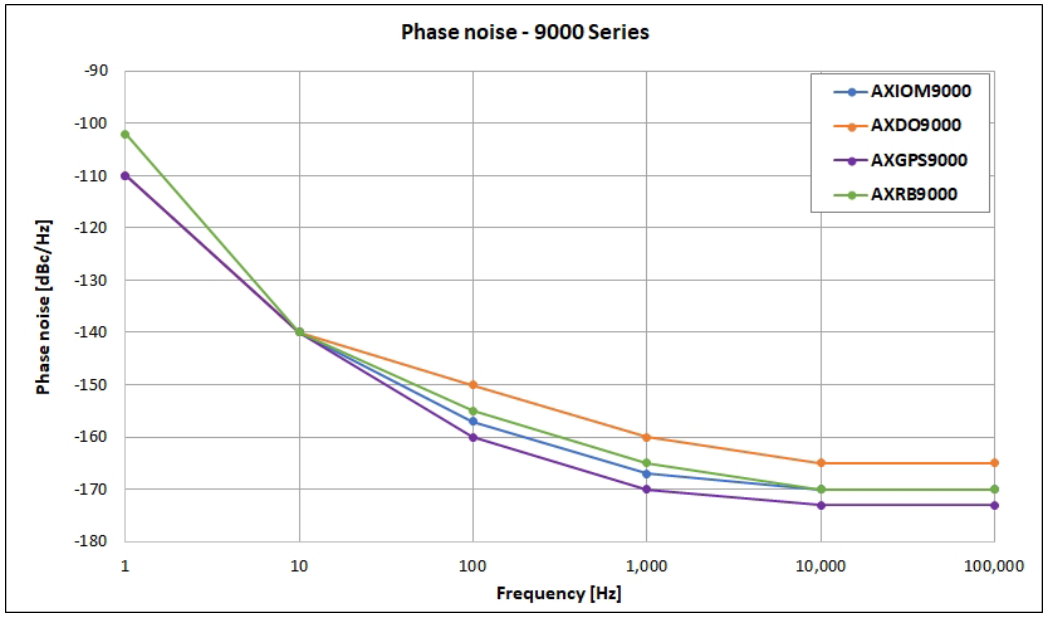
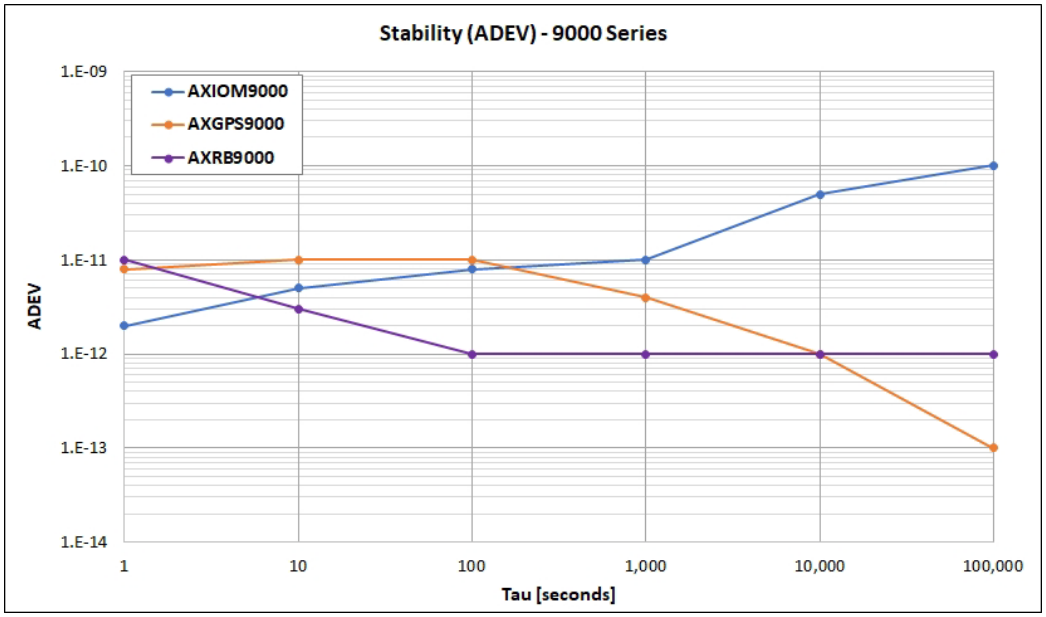
Designed and Manufactured in Germany

9000 Series Performance

Phase Noise



Stability (ADEV) & Holdover



Time	AXIOM9000	AXGPS9000	AXRB9000
8 hours	1 µs	100 ns	30 ns
24 hours	10 µs	1 µs	90 ns
3 days	100 µs	10 µs	260 ns
10 days	900 µs	100 µs	900 ns
1 month	8 ms	1 ms	2.6 µs

Typical Holdover Performance

See also our
Distribution Amplifiers AXDA9000 Series for 1PPS and 10 MHz distribution
AXPLO10 & AXDA9200-CU for 10 MHz Phase Noise Clean-up

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