# Unicode Rendering Test Report

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|---|---|
| **Technician:** | Test User |
| **Test Date:** | 2026-01-04 12:59:23 |
| **Equipment:** | Test Equipment |

**Overall Result: INCONCLUSIVE**

## Executive Summary

This test verifies Unicode character rendering in PDF reports:
- Smart quotes: "Hello" and 'world'
- Em-dash and en-dash: -test- and -test-
- Bullets: *Item 1* Item 2
- Ellipsis: Testing...
- Mathematical symbols: <= >= != x /
- Degrees: 25 degC or 77 degF
- Non-breaking spaces and special formatting

*Summary generated by AI*

## Key Findings

• Signal quality is "excellent" with minimal noise
• Frequency stability: ±0.1% - well within spec
• Temperature range: 20 degC to 25 degC
• Rise time <= 100ns; fall time >= 50ns

## Test Results

This section tests AI-generated text with special characters.

### *AI Analysis*

The waveform analysis reveals several key characteristics:
* Frequency: 1.000 kHz (±0.01%)
* Amplitude: Very stable - no significant drift
* Temperature coefficient: <= 10 ppm/ degC

* Signal-to-noise ratio: >= 60 dB

The signal quality is "exceptional"... surpassing expectations.

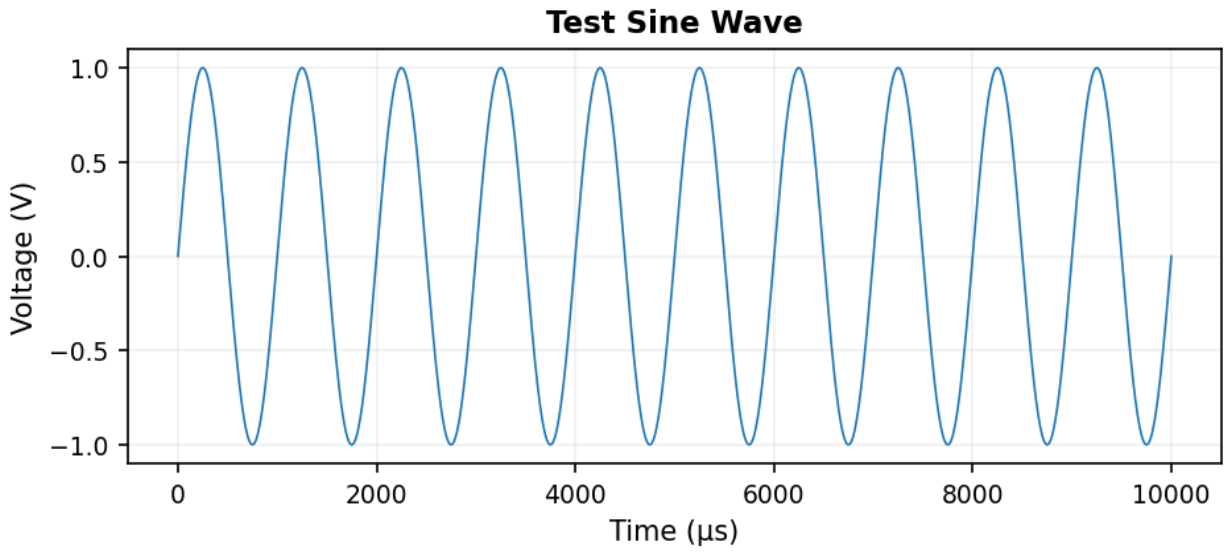
## AI Insights

Key observations:
1. The signal shows "textbook" sine wave characteristics
2. Harmonic distortion is <= 0.1% - excellent performance
3. Phase noise: -140 dBc/Hz @ 10 kHz offset
4. Recommended operating range: -20 degC to +85 degC

Note: These results are within ±5% of theoretical predictions.

## Waveforms

***Waveform 1: Test Sine Wave***




**Channel:** Test Sine Wave

**Sample Rate:** 0.10 MS/s

**Record Length:** 1000 samples

**Peak-to-Peak:** 2.0000 V

**Min:** -1.0000 V

**Max:** 1.0000 V

| Statistic | Value |
|---|---|
| **Signal Type:** | Sine (95.0 %) |

| | |
|---|---|
| **Frequency:** | 1.000 kHz |
| **Period:** | 1.000 ms |
| **Vmax:** | 1000.00 mV |
| **Vmin:** | -1000.00 mV |
| **Vpp:** | 2.000 V |
| **Vmean:** | -0.00 µV |
| **Vrms:** | 706.75 mV |
| **Vamp:** | 0.00 µV |
| **DC Offset:** | -0.00 µV |
| **Rise Time:** | 300.300 µs |
| **Fall Time:** | 300.300 µs |
| **Duty Cycle:** | 0.00 % |
| **Noise Level:** | 706.75 mV |
| **SNR:** | 3.01 dB |
| **THD:** | 0.18 % |
| **Overshoot:** | 2.80 % |
| **Undershoot:** | 2.80 % |
| **Jitter:** | 0.00 ns |

## Recommendations

1. Continue monitoring... signal may degrade over time
2. Use x 10 probe for better accuracy
3. Maintain temperature <= 30 degC for optimal performance

Report generated on 2026-01-04 at 12:59:23