Phase Noise Measurement Technique Using Delta-Sigma TDC Without Reference Clock

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Conventional Method
- Expensive spectrum analyzers
- Long measurement time (~10 seconds)
- Significant test cost

Proposed Method
- Using simple circuit
- Delta-Sigma Time-to-Digital Converter (TDC)
- Low Cost, High Quality
- Phase Noise Test

Oscillator Phase Noise

Bad influence in electronic system
- Interference in RF system
- ADC performance degradation

Important