

P3335 Performance specifications:

A start

Doug Arnold

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Time Accuracy

- Required specifications
 - Identify source of standard time, e.g. GPS
 - Time accuracy to source (e.g. GPS system time)
 - For “Maximum” error specify percentage of time error is less than the stated value, e.g. 99%
 - Stated error shall include static error and dynamic error
 - Measurement point (e.g. 1PPS output)
 - Valid temperate range
 - Minimum necessary lock time interval to be in spec
- Optional specifications
 - Maximum transient error
 - RMS error (shall include static and dynamic error)
 - Maximum and/or RMS error to UTC or TAI (must include published estimate of maximum error from time source to UTC or TA)
 - Maximum and/or RMS disagreement among same model timecards

Time Precision/stability

- Required specifications
 - MTIE, including averaging time(s)
 - Measurement point (e.g. 1PPS output)
 - Valid temperature range
 - Minimum necessary lock time interval to be in spec
- Optional specifications
 - TDEV, including averaging time(s)
 - Phase noise

Frequency Precision/stability

- Optional specifications
 - Double sideband spectral density as a function of deviation from the carrier frequency in dBc/Hz
 - Measurement point (e.g. 10 MHz output)
 - Valid temperature range
- For both time and frequency domain performance specifications the term jitter shall not be used
 - This is due to jitter having multiple definitions in common use

Holdover

- Required specifications
 - Minimum time interval that output does not exceed error threshold
 - Error threshold
 - Measurement point (e.g. 1PPS output)
 - Valid temperate range
 - Minimum necessary lock time interval prior to holdover to be in spec
- Optional specification
 - RMS holdover time interval