5528A Laser Measurement System

Data Sheet

<u>**Compensation**</u>
Maximum Compensation Update Time: 2.5s Typical
(Combined VOL and Material Temperature Compensation)

Velocity of Light (VOL) Compensation:
    Manual: Compensation factor is entered via keyboard Range: 0.0 to 999.9 ppm
    Automatic: Requires Agilent 10751A/B Air Sensor. Displays of pressure, temperature,
    relative humidity setting and computed VOL are provided on the Agilent 5508A.

Material Temperature Compensation:
    Manual: User entered via keyboard Range: 0 - 50 degrees C (32 - 122 degrees F)
    Automatic: Requires 1 to 3 Agilent 10757A/B/C Material Temperature Sensors.
    Display of individual readings and average of all connected sensors is provided on
    the Agilent 5508A. Average value is used in all calculations.

<u>**System Operating Characteristics**</u>

Unit Selection: Rear panel switch selects Metric (millimeters, degree C) or English (inches, degree F) units for all displays and data entry.

Update Rates (Nominal):
Measurement data is updated at the following average rates:

Measurement	Auto Record	GPIB Triggered
Distance	40/s	20/s
Velocity	30/s	15/s
Angle, Straightness	25/s	12/s
Not Maximum Resolution	25/s	25/s
Maximum Resolution	5/s	5/s

Maximum data output rate via HP-IB equals the Update Rate for the measurement in process.

Preset Capability:
Measurements can be preset to user selected values within the ranges shown. Presets either add or multiply as indicated.

Measurement	Metric	English	Math Function
Distance	-50000 to +50000 mm	-2000 to +2000 in.	Add
Velocity	-20000 to +20000mm/min	-720 to +720 in/min	Add
Angle	0 to 2	0 to 2	Multiply
Straightness	0 to 3	0 to 3	Multiply

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Auto Record: Outputs value currently displayed at fixed intervals of time selected by the user.
Range: 0.05 to 12.0 s in increments of 0.05 s, typical

Remote Control Unit:
RESET, RECORD BUTTONS and BEAM STRENGTH indicator for initiating data output from up to 15 m away from the Agilent 5508A Measurement Display Unit. Supplied with Agilent 5508A.

Data Smoothing:
Smoothing (averaging) to reduce the effects of vibration and noise is automatically applied to all displayed measurement data. Smoothing can be turned off if desired via keyboard entry.