

# ISO/TS 15530-1:2013-09 (E)

## Geometrical product specifications (GPS) - Coordinate measuring machines (CMM): Technique for determining the uncertainty of measurement - Part 1: Overview and metrological characteristics

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Normative references .....</b>	<b>1</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>1</b>
<b>4</b>	<b>Metrological characteristics .....</b>	<b>2</b>
4.1	General .....	2
4.2	Commerce .....	2
4.3	Internal use in an organization .....	2
4.4	Identification, definition, and choice of metrological characteristics .....	2
4.5	Calibration of metrological characteristics .....	3
<b>5</b>	<b>Task-specific uncertainty .....</b>	<b>3</b>
5.1	General .....	3
5.2	Instrumentation factors .....	4
5.3	Measurement plan factors .....	4
5.4	Extrinsic factors .....	4
<b>6</b>	<b>Techniques to determine task-specific measurement uncertainty components .....</b>	<b>4</b>
6.1	General issues .....	4
6.2	Sensitivity analysis .....	4
6.3	Use of calibrated workpieces or standards (ISO 15530-3) .....	5
6.4	Use of computer simulation (ISO/TS 15530-4) .....	5
<b>Annex A (informative)</b>	<b>Relationship between CMM metrological characteristics, the ISO 10360 series of standards and the ISO 15530 series of standards .....</b>	<b>6</b>
<b>Annex B (informative)</b>	<b>Sources of error and uncertainty of measurement when using a CMM .....</b>	<b>7</b>
<b>Annex C (informative)</b>	<b>Relation to the GPS matrix model .....</b>	<b>12</b>
<b>Bibliography .....</b>		<b>14</b>