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**Program of Pattern Evaluation for Electronic Theodolites
(English Translation)**

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Introduction

This outline is based on JJF 1016-2009 "Measuring Instruments type evaluation outline guidelines for the preparation" and JJF 1015-2002 "Measuring Instruments type evaluation and type approval of universal norms" formed.

The outline of the pilot projects and test procedures cited JJG414 "theodolite", JJG100 "total station Electronic speed measuring instrument ", GB/T 3161-2003" theodolite "provisions on requirements for test equipment references Provisions JJG949-2000 "theodolite verification device".

Electronic theodolite type evaluation outline

1 Scope

This type of evaluation applied to outline the level of accuracy of I, II, III, IV grade electronic theodolite type evaluation.

2. References

JJG100 total station electronic speed measuring instrument JJG414 theodolite
JJG949-2000 theodolite verification device GB/T 2423.4-2008 Environmental testing for electric and electronic products Part 2. Test methods - Test Db.

Alternating hot and humid (12h 12h cycle) GB/T 3161-2003 theodolite JB/T 9329-1999 instrumentation transportation,, storage and basic environmental conditions and test methods these documents contain provisions which through reference in this syllabus constitute provisions of this outline, dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply in this outline, however, to encourage root According to the parties that this agreement outlines the applicability of the latest versions of these documents. For undated reference documents Member, the latest versions apply to this outline.

3 Overview

Electronic theodolite (hereinafter referred to as the theodolite) is a goniometer with automatic compensation, electronic goniometer with digital display instrument.

Such equipment is mainly used for national third-class, fourth-wire measurement and triangulation control surveying, mining, railways, highways, Engineering survey work bridges, farmland, water conservancy and other aspects, can also be used to install large-scale machinery and equipment.

Its accuracy class with one measuring instrument nominal standard deviation m_{β} horizontally divided as shown in Table 1.

Table 1 Accuracy classification

Instrument grade I II III IV Standard deviation (") $m\beta \leq 1.0$ $1.0 \leq m\beta \leq 2.0$
 $2.0 \leq m\beta \leq 6.0$ $6.0 \leq m\beta \leq 10.0$ 4 legal management requirements 4.1 units
of measurement Theodolite legal units of measurement should be used.

4.2 legal metrology marking and measuring instruments logo Theodolite shall be marked
with the manufacturer (or factory standard), model and serial number of domestic theodolite
measuring instruments must be made Manufacturing license number (of new products can
leave the corresponding position) and mark. Theodolite with laser should be in a prominent
position Set marked with warning signs.