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JJG

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

JJG 841-2012

Replacing JJG 841-1993

**Verification Regulation of Microwave Frequency Counters
(English Translation)**

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6.1 Appearance (2)

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Introduction

JJG 841 "microwave frequency counter" is the revised version of JJG 841-1993 conducted. And JJG 841-1993 Compared to, in addition to editorial changes outside the main technical

changes are as follows.

- Increase the frequency measurement limit (see Chapter 1);
- New introduction, the term content (see Introduction and Chapter 3);
- Complement the performance requirements for content measurement (see Chapter 5);
- Refine and clarify the test conditions (see 7.1);
- Provisions of the applicable conditions of different test methods, eliminating synthetic, frequency converters, modular signal attenuator Generating method and splitters method (see 7.2.2.3);
- New frequency measurement error test items and test methods (see 5.2 and 7.2.2.4);
- Test new original record data page format (see Appendix A), calibration certificate/test results within the page frame notice Type style (see Appendix B).

JJG 841-1993 for the first release.

Microwave frequency counter test procedures

1 Scope

The order applies to the measurement frequency range of 100kHz ~ 40GHz microwave frequency counter and other instruments the microwave frequency counting function module initial verification, use and subsequent verification check.

2. References

JJG 180-2002 "electronic measuring instruments within the quartz oscillator" for dated references, only the dated edition applies to this procedure; undated reference documents Member, the latest edition (including any amendments) applies to this procedure.

3 Terms

3.1 Input sensitivity Microwave frequency counter works fine and the reading is stable, the measured signal is accurate minimum required level value.

3.2 Maximum input level Microwave frequency counter works fine and the reading is stable, the measured signal is accurate can withstand the maximum level value.

4 Overview

Microwave frequency counter frequency measurement refers to the upper reaches of the microwave frequency counter, also known as the microwave frequency counter. it Usually down-conversion technology, microprocessor controlled by the frequency of the measured microwave signals can be converted into a counter Direct measurement of the frequency, widely used in national defense, scientific research, universities and military departments measuring microwave, millimeter wave band power Signal frequency.

5 metering performance requirements

5.1 Input characteristics Input characteristics are shown in Table 1.

Table 1 Input characteristics

Technical Specifications Bands Frequency range 100kHz ~ 1GHz (1 ~ 18) GHz (18 ~ 26.5) GHz (26.5 ~ 40) GHz Input sensitivity (20 ~ 300) mV (-33 ~ -20) dBm (-29 ~ -17) dBm (-23 ~ -15) dBm the maximum input level (2 ~ 7) V (5 ~ 13) dBm (7 ~ 13) dBm (7 ~ 13) dBm BNC input connector type N-type socket/SMA and other 3.5mm/K type, etc. 2.4mm/K type, etc.

Note: The band division and technical specifications to the product specification shall prevail.