

ICS 17.220
CCS A 56

JJF

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

JJF 1679-2017

**Calibration Specification for ZigBee Testers
(English Translation)**

Issued on: November 20, 2017

Implemented on: February 20, 2018

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine**

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9 Re-school interval (7)

Appendix A Original Recording Format (8)

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Appendix C Evaluation Examples of Measurement Uncertainty for Main Project Calibration Results (16)

Introduction

This calibration specification is based on JJF 1071-2010 "Rules for the preparation of national metrological calibration specifications", JJF 1059.1-2012 "Measurement and Expression of Measurement Uncertainty".

This calibration specification refers to the IEEE standard 802.15.4-2011 LAN and MAN. Low-rate wireless personal Regional networks (LR-WPANs).

This specification is the first release.

ZigBee comprehensive tester calibration specification

1 Scope

This specification applies to the ZigBee integrated tester in the 2.4 GHz band (2.402 GHz to 2.484 GHz) for calibration, of other ZigBee combo testers can refer to this specification.

2 references

IEEE Standard 802.15.4-2011 LAN and MAN. Low Rate Wireless Personal Area Network (LR-WPANs). [IEEE Std 802.15.4TM-2011, IEEEStandardforLocalandmetropolitanarea networks-Part 15.4. Low-RateWirelessPersonalAreaNetworks(LR-WPANs)].

For dated references, only dated editions apply to this specification; all undated references the latest version (including all amendments) applies to this specification.

3 Terms

3.1 ZigBee

Economical, High-Efficiency, Low Data Rate (less than 250 kbit/s) Wireless Defined by IEEE Std 802.15.4 Domain-based network technology, operating in the 2.4GHz open band, supporting asynchronous data services, and supporting synchronous data industry Service, star or mesh networking communication.

4 Overview

ZigBee comprehensive tester is composed of reference crystal oscillator, digital modulation signal generator, power analyzer and number A comprehensive test instrument consisting of functional modules such as a word modulation analyzer was produced, developed and

tested at the ZigBee terminal.

Chengzhong used for power, frequency, modulation and other parameters of the test.

5 Metrological characteristics

5.1 Reference Crystal Oscillator Frequency range and frequency deviation. 10 MHz; $\pm 1 \times 10^{-6}$.

5.2 RF output signal

5.2.1 Output frequency range and frequency deviation. 2.402 GHz to 2.484 GHz; $\pm 1 \times 10^{-6}$.

5.2.2 Output Power Range and Maximum Allowable Error. -90dBm~0dBm; ± 1.0 dB.

5.3 Output Digital Modulation Signal

5.3.1 Digital Modulation Quality Parameters Root mean square error vector magnitude (EVM). $\leq 2\%$.

5.3.2 Adjacent channel power the spectrum emission template is shown in Table 1 and Figure 1.