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

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**Calibration Specification for Lower Power Transfer Standards
(English Translation)**

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Introduction

This specification based JJF 1071-2010 "national measurement calibration specifications write rules" Writing, terminology and measurement Uncertainty Evaluation follow JJF 1001 "common measurement terms and definitions" and JJF 1059.1 "Measurement Uncertainty and said, "two documents.

This specification relates primarily small power transfer standard calibration factor and the reflection coefficient modulus values. Alternating Comparison Law and Standards Act passed the calibration terminal Small Power Transfer Standard calibration factor; uses Terminating Power Standard direct calibration Pass-through low-power standard calibration factor; a network analyzer calibration terminal Small Power Transfer Standard input End reflection coefficient modulus.

This specification is the first release.

Small Power Transfer Standard Calibration Specification

1 Scope

This standard applies to the frequency range of 100kHz ~ 50GHz, power measurement range of 0.5mW ~ 10mW A variety of small power transfer standard calibration.

2. References

This specification refers to the following documents.

JJF 1001 common measurement terms and definitions.

For dated references, only the dated edition applies to this specification; undated reference documents Member, the latest edition (including any amendments) applies to this specification.

3 terminology and units of measurement the following definitions of terms apply to this specification.

3.1 Terminating Power Standard calibration factor

calibrationfactorofterminatingpowerstandard DC alternative power P_b incident bolometer element to the seat of power than the power of P_i , by K_b FIG.

3.2-through power standard calibration factor calibrationfactoroffeedthroughpowerstandard

Next to the directional coupler alternative power P_{bc} incident arm (or splitters side output terminal) connected to a power seat set the main arm to the coupler output (or the other side of the splitter output) than non-reflective power P_o of the load, with K_c FIG.

4 Overview

Small Power Transfer Standard is standard equipment for the power value transfer based on their access to the system is not the way the same is divided into two types by passing a standard formula transfer standard and low-power terminal type.

Small power transfer through a standard thermistor power seat, directional coupler (or power divider) and the power indicator (Or power bridge) components.

Small Power Transfer Standard Terminal from the power seat and power indicator (or power bridge) composition, or by the formula Low-power standard output matched load components.

5 Metrological characteristics

a) Frequency range. 100kHz ~ 50GHz;

b) Power measurement range. 0.5mW ~ 10mW;

c) Measurement Uncertainty of calibration factors. 0.6% ~ 5.0% ($k = 2$);

d) the reflection coefficient modulus value. not more than (0.1 to 0.25).

Note: The above indicators are not used to determine eligibility for reference only.