

ICS 17.220
CCS A 56

JJF

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

JJF 1155-2006

**Calibration Specification for Absorbing Clamp in the Range of
30MHz to 1.0GHz
(English Translation)**

Issued on: May 23, 2006

Implemented on: August 23, 2006

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

Table of Contents

1 Scope (1)	
2 References (1)	
3 Terms and measurement units (1)	
3.1 Absorbing forceps (1)	
3.2 Absorption clamp insertion loss (1)	
3.3 Absorption clamp correction factor (1)	
4 Overview (1)	
4.1 The purpose of absorbing forceps (1)	
4.2 The structure of the absorbing clamp (2)	
5 Measurement characteristics (2)	
6 Calibration conditions (3)	
6.1 Environmental conditions (3)	
6.2 Main equipment for calibration (3)	
7 Calibration items and calibration methods (4)	
7.1 Appearance and working normality inspection (4)	
7.2 Calibration method (4)	
7.3 Parameter setting of calibration equipment (6)	
7.4 Improvement of calibration method (7)	
8 Calibration result expression (7)	
9 Recalibration interval (8)	
Appendix A Calibration Record Content (9)	
Appendix B Contents of the inner page of the calibration certificate (11)	
Appendix C Working Principle of Absorption Clamp and Emission Equivalent Circuit (14)	
Appendix D Examples of Uncertainty Evaluation (18)	

4 Overview (1)

4.1

The purpose of absorbing forceps (1)

4.2

The structure of the absorbing clamp (2)

9 Recalibration interval (8)

Appendix A Calibration Record Content (9)

Appendix B Contents of the inner page of the calibration certificate (11)

Appendix C Working Principle of Absorption Clamp and Emission Equivalent Circuit (14)

Appendix D Examples of Uncertainty Evaluation (18)

30MHz~1.0GHz Absorption Power Clamp Calibration Specification

1 Scope

This calibration specification is applicable to newly manufactured, purchased, in-use and repaired adjustments. The frequency range is (30~

1000) MHz Absorption power clamp that meets the requirements of GB/T 6113.1-1995 and GB/T 6113.2-1998 (Absorption clamp) calibration.

2 References

GB/T 6113.1-1995 Radio disturbance and immunity measurement equipment specification

GB/T 6113.2-1998 Radio disturbance and immunity measurement method GB/T 4365-2003 Electromagnetic compatibility

CISPR16-4-2:2003 Specification for radio disturbance and immunity measuring apparatus and methods Part 4-2 Uncertainties, Statistics and limit modeling Measurement

instrumentation Uncertainty Tim Williams,

Geoff Orford the UK's National Measurement Laboratory Electronics Publications "Calibration and use of artificial mains networks and absorbing clamps" when using this specification, you should pay attention to using the currently valid versions of the above cited documents.

3 Terms and units of measurement

3.1 Absorbing clamp for equipment with a power cord, its interference capability can be used as a radiating antenna power cord (only refers to the that part) to measure the energy provided. This power is approximately equal to what the absorption device can absorb when placed around the lead Maximum power. This absorption device is called absorption clamp or ferrite clamp.

3.2 Absorption clamp insertion loss the insertion loss of the absorbing clamp is the fitting between the absorbing clamp and the calibration lead between the coaxial connectors C1 and C2 in Figure 7.1 of this specification.

The unit of loss is decibel and the symbol is dB.

3.3 Correction factor of absorption clamp the correction factor of the absorbing clamp is the difference between the insertion loss of the absorbing clamp and 17, the unit is decibel and the symbol is expressed in dB. 17 it is the approximate value of $10\log 50$, which is the

conversion factor between dB (μ V) and dB (pW) in a 50ohm measurement system.

4 overview

4.1 Purpose of Absorbing Forceps