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

GB/T 20870.2-2023

**Semiconductor devices - Part 16-2: Microwave integrated
circuits - Frequency prescalers**

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document is Part 2 of GB/T 20870 "Semiconductor Devices". GB/T 20870 has released the following parts.

---Part 16-1. Microwave integrated circuit amplifier;

---Part 16-2. Microwave integrated circuit prescaler;

---Part 16-5. Microwave integrated circuit oscillators;

---Part 16-10. Monolithic microwave integrated circuit technology receivable procedures.

This document is equivalent to IEC 60747-16-2:2007 "Semiconductor Devices Part 16-2. Microwave Integrated Circuit Prescalers".

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

Introduction

Semiconductor devices are common basic products in the electronics industry chain and are the most basic units in electronic systems. GB/T 20870 "Semiconductor Semiconductor"

"Conductor Device" is a microwave integrated circuit product standard. It is a basic and universal standard for the development, production and inspection of microwave integrated circuits.

It plays an important role in evaluating and assessing the quality and reliability of microwave integrated circuits and is planned to be composed of 10 parts.

---Part 16-1.Microwave integrated circuit amplifier. The purpose is to specify the terminology, basic ratings of microwave integrated circuit amplifiers

Values, properties, and test methods.

---Part 16-2.Microwave integrated circuit prescaler. The purpose is to specify the terms and letters of microwave integrated circuit prescalers.

Symbols, basic ratings, characteristics, and test methods.

---Part 16-3.Microwave integrated circuit frequency converter. The purpose is to specify the terminology and basic ratings of microwave integrated circuit inverters.

Values, properties, and test methods.

---Part 16-4.Microwave integrated circuit switches. The purpose is to specify the terminology, basic ratings, characteristics of microwave integrated circuit switches

properties and testing methods.

---Part 16-5.Microwave integrated circuit oscillators. The purpose is to specify the terminology, basic ratings of microwave integrated circuit oscillators

Values, properties, and test methods.

---Part 16-6.Microwave integrated circuit frequency multiplier. The purpose is to specify the terminology and basic ratings of microwave integrated circuit frequency multipliers.

Values, properties, and test methods.

---Part 16-7.Microwave integrated circuit attenuators. The purpose is to specify the terminology, basic ratings of microwave integrated circuit attenuators

Values, properties, and test methods.

---Part 16-8.Microwave integrated circuit limiter. The purpose is to specify the terminology, basic ratings of microwave integrated circuit limiters

Values, properties, and test methods.

---Part 16-9.Microwave integrated circuit phase shifters. The purpose is to specify the terminology, basic ratings of microwave integrated circuit phase shifters

Values, properties, and test methods.

---Part 16-10.Monolithic microwave integrated circuit technology receivable procedures. The purpose is to specify the design,

Terminology, definitions, symbols, quality systems, testing, evaluation, verification methods and other requirements for manufacturing and delivery.

This series of standards corresponds to the IEC 60747-16 series of standards, ensuring

that microwave integrated circuit product standards are consistent with international standards and realizing microwave

Integrated circuit product standards are in line with international standards.

Semiconductor Devices Part 16-2.

Microwave integrated circuit prescaler

1 Scope

This document specifies the terminology, alphabetical symbols, basic ratings, characteristics, and test methods for microwave integrated circuit prescalers.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations

For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to

this document.

Note. GB/T 4728 (all parts) Graphical symbols for electrical diagrams (IEC 60617.2018, IDT)

Note. GB/T 17573-1998 Semiconductor devices Discrete devices and integrated circuits Part 1.General provisions (IEC 60747-1.1993, IDT)

IEC 61340-5-1.2016 Electrostatics Part 5-1.Basic requirements for electrostatic protection of electronic devices (Eletrostatics-Part 5-1.

IEC TR61340-5-2.2018 Electrostatics Part 5-2.User Guide for Electrostatic Protection of Electronic Devices (Eletrostatics-

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

powersupplyvoltage

DC voltage applied to the "i"th terminal indexed by "xx".

3.2

powersupplycurrent

The DC current flowing on the "i"-th terminal with the subscript "xx".

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