

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



**Measurement techniques of piezoelectric, dielectric and electrostatic oscillators –  
Part 1: Basic methods for the measurement**

**Techniques de mesure des oscillateurs piézoélectriques, diélectriques et  
électrostatiques –  
Partie 1: Méthodes fondamentales pour le mesurage**



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IEC Central Office  
3, rue de Varembe  
CH-1211 Geneva 20  
Switzerland

Tel.: +41 22 919 02 11  
[info@iec.ch](mailto:info@iec.ch)  
[www.iec.ch](http://www.iec.ch)

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## CONTENTS

FOREWORD.....	6
1 Scope.....	8
2 Normative references .....	8
3 Terms and definitions .....	9
3.1 General.....	9
3.2 Terms and definitions.....	10
4 Test and measurement procedures.....	10
4.1 General.....	10
4.2 Test and measurement conditions.....	10
4.2.1 Standard conditions for testing .....	10
4.2.2 Equilibrium conditions.....	10
4.2.3 Air flow conditions for temperature tests .....	10
4.2.4 Power supplies .....	11
4.2.5 Precision of measurement .....	11
4.2.6 Precautions .....	11
4.2.7 Alternative test methods .....	11
4.3 Visual inspection.....	11
4.3.1 General .....	11
4.3.2 Visual test A .....	11
4.3.3 Visual test B .....	11
4.3.4 Visual test C .....	11
4.4 Dimensions and gauging procedures .....	12
4.4.1 Dimensions – Test A.....	12
4.4.2 Dimensions – Test B.....	12
4.5 Electrical test procedures.....	12
4.5.1 Insulation resistance.....	12
4.5.2 Voltage proof.....	12
4.5.3 Input power .....	13
4.5.4 Output frequency.....	14
4.5.5 Frequency/temperature characteristics .....	15
4.5.6 Frequency/load coefficient.....	16
4.5.7 Frequency/voltage coefficient .....	17
4.5.8 Frequency stability with thermal transient .....	17
4.5.9 Oscillation start-up.....	18
4.5.10 Stabilization time .....	22
4.5.11 Frequency adjustment range.....	22
4.5.12 Retrace characteristics .....	23
4.5.13 Oscillator output voltage (sinusoidal) .....	23
4.5.14 Oscillator output voltage (pulse waveform) .....	24
4.5.15 Oscillator output waveform (sinusoidal) .....	25
4.5.16 Oscillator output waveform (pulse).....	27
4.5.17 Oscillator output power (sinusoidal) .....	27
4.5.18 Oscillator output impedance (sinusoidal) .....	27
4.5.19 Re-entrant isolation .....	28
4.5.20 Output suppression of gated oscillators .....	28
4.5.21 3-state output characteristics.....	29
4.5.22 Amplitude modulation characteristics.....	30

4.5.23	Frequency modulation characteristics .....	36
4.5.24	Spurious response .....	40
4.5.25	Phase noise .....	40
4.5.26	Phase noise – vibration .....	41
4.5.27	Phase noise – acoustic .....	41
4.5.28	Noise pedestal .....	41
4.5.29	Spectral purity .....	43
4.5.30	Incidental frequency modulation .....	43
4.5.31	RMS fractional frequency fluctuations .....	44
4.5.32	Electromagnetic interference (radiated) .....	48
4.6	Mechanical and environmental test procedures .....	52
4.6.1	Robustness of terminations (destructive) .....	52
4.6.2	Sealing test (non-destructive) .....	54
4.6.3	Soldering (solderability and resistance to soldering heat) (destructive) .....	54
4.6.4	Rapid change of temperature: severe shock by liquid immersion (non-destructive) .....	57
4.6.5	Rapid change of temperature: thermal shock in air (non-destructive) .....	57
4.6.6	Bump (destructive) .....	57
4.6.7	Vibration (destructive) .....	58
4.6.8	Shock (destructive) .....	59
4.6.9	Free fall (destructive) .....	59
4.6.10	Acceleration, steady-state (non-destructive) .....	59
4.6.11	Acceleration – 2g tip over .....	59
4.6.12	Acceleration noise .....	59
4.6.13	Low air pressure (non-destructive) .....	59
4.6.14	Dry heat (non-destructive) .....	59
4.6.15	Damp heat, cyclic (destructive) .....	60
4.6.16	Cold (non-destructive) .....	60
4.6.17	Climatic sequence (destructive) .....	60
4.6.18	Damp heat, steady-state (destructive) .....	60
4.6.19	Salt mist, cyclic (destructive) .....	60
4.6.20	Mould growth (non-destructive) .....	60
4.6.21	Immersion in cleaning solvent (non-destructive) .....	60
4.6.22	Radiation hardness .....	60
	Bibliography .....	61
	Figure 1 – Test circuits for insulation resistance measurements .....	12
	Figure 2 – Test circuit for voltage proof test .....	13
	Figure 3 – Test circuit for oscillator input power measurement .....	13
	Figure 4 – Test circuit for oven and oscillator input power measurement .....	14
	Figure 5 – Test circuit for measurement of output frequency, method 1 .....	15
	Figure 6 – Test circuit for measurement of output frequency, method 2 .....	15
	Figure 7 – Test circuit for measurement of frequency/temperature characteristics .....	16
	Figure 8 – Thermal transient behaviour of typical oscillator .....	18
	Figure 9 – Generalized oscillator circuit .....	19
	Figure 10 – Test circuit for start-up behaviour and start-up time measurement .....	20
	Figure 11 – Typical start-up behaviour with slow supply voltage ramp .....	20

Figure 12 – Definition of start-up time .....	21
Figure 13 – Supply voltage waveform for periodical $t_{SU}$ measurement .....	22
Figure 14 – Typical oscillator stabilization characteristic .....	22
Figure 15 – Example of retrace characteristic .....	23
Figure 16 – Test circuit for the measurement of output voltage .....	24
Figure 17 – Test circuit for the measurement of pulse outputs .....	24
Figure 18 – Characteristics of an output waveform.....	24
Figure 19 – Test circuit for harmonic distortion measurement .....	25
Figure 20 – Quasi-sinusoidal output waveforms .....	25
Figure 21 – Frequency spectrum for harmonic distortion .....	26
Figure 22 – Test circuit for the determination of isolation between output ports.....	28
Figure 23 – Test circuit for measuring suppression of gated oscillators.....	29
Figure 24 – Test circuit for 3-state disable mode output current.....	29
Figure 25 – Test circuit for output gating time – 3-state.....	30
Figure 26 – Test circuit for modulation index measurement.....	31
Figure 27 – Modulation waveform for index calculation .....	31
Figure 28 – Logarithmic signal amplitude scale.....	31
Figure 29 – Test circuit to determine amplitude modulation sensitivity .....	33
Figure 30 – Frequency spectrum of amplitude modulation distortion .....	33
Figure 31 – Test circuit to determine pulse amplitude modulation .....	34
Figure 32 – Pulse modulation characteristic.....	35
Figure 33 – Test circuit for the determination of modulation input impedance.....	36
Figure 34 – Test circuit for the measurement of f.m. deviation .....	36
Figure 35 – Test circuit for the measurement of f.m. sensitivity .....	38
Figure 36 – Test circuit for the measurement of frequency modulation distortion.....	39
Figure 37 – Test circuit for the measurement of single-sideband phase noise .....	40
Figure 38 – Typical noise pedestal spectrum .....	42
Figure 39 – Test circuit for the measurement of incidental frequency modulation .....	44
Figure 40 – Test circuit for method 1.....	45
Figure 41 – Test circuit for method 2.....	46
Figure 42 – Circuit modifications for methods 1 and 2.....	47
Figure 43 – Time-domain short-term frequency stability of a typical 5 MHz precision oscillator.....	48
Figure 44 – Radiated interference tests .....	49
Figure 45 – Characteristics of line impedance of stabilizing network .....	50
Figure 46 – Circuit diagram of line impedance of stabilizing network.....	51
Figure 47 – Reflow temperature profile for solderability .....	55
Figure 48 – Reflow temperature profile for resistance to soldering heat .....	56
Table 1 – Measuring sets bandwidth .....	52
Table 2 – Tensile force .....	52
Table 3 – Thrust force.....	53
Table 4 – Bending force.....	53

Table 5 – Torque force..... 54  
Table 6 – Solderability – Test condition, reflow method..... 55  
Table 7 – Resistance to soldering heat – Test condition and severity, reflow method..... 57

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MEASUREMENT TECHNIQUES OF PIEZOELECTRIC,  
DIELECTRIC AND ELECTROSTATIC OSCILLATORS –**

**Part 1: Basic methods for the measurement**

FOREWORD

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International Standard IEC 62884-1 has been prepared by IEC technical committee 49: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection.

This bilingual version (2019-08) corresponds to the monolingual English version, published in 2017-06.

The text of this International Standard is based on the following documents:

CDV	Report on voting
49/1187A/CDV	49/1200/RVC

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

The French version of this standard has not been voted upon.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62884 series, published under the general title *Measurement techniques of piezoelectric, dielectric and electrostatic oscillators*, can be found on the IEC website.

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# MEASUREMENT TECHNIQUES OF PIEZOELECTRIC, DIELECTRIC AND ELECTROSTATIC OSCILLATORS –

## Part 1: Basic methods for the measurement

### 1 Scope

This part of IEC 62884 specifies the measurement techniques for piezoelectric, dielectric and electrostatic oscillators, including Dielectric Resonator Oscillators (DROs) and oscillators using FBAR (hereinafter referred to as "Oscillator").

NOTE Dielectric Resonator Oscillators (DROs) and oscillators using FBAR are under consideration.

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60027 (all parts), *Letter symbols to be used in electrical terminology*

IEC 60050-561, *International electrotechnical vocabulary – Part 561: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection*. Available at <http://www.electropedia.org>

IEC 60068-1:2013, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-1, *Environmental testing – Part 2-1: Tests – Test A: Cold*

IEC 60068-2-2, *Environmental testing – Part 2-2: Tests – Test B: Dry heat*

IEC 60068-2-6, *Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-7, *Basic environmental testing procedures – Part 2-7: Tests – Test Ga and guidance: Acceleration, steady state*

IEC 60068-2-10:2005, *Environmental testing – Part 2-10: Tests – Test J and guidance: Mould growth*

IEC 60068-2-13, *Basic environmental testing procedures – Part 2-13: Tests – Test M: Low air pressure*

IEC 60068-2-14, *Environmental testing – Part 2-14: Tests – Test N: Change of temperature*

IEC 60068-2-17:1994, *Basic environmental testing procedures – Part 2-17: Tests – Test Q: Sealing*

IEC 60068-2-20, *Environmental testing – Part 2-20: Tests – Test T: Test methods for solderability and resistance to soldering heat of devices with leads*

IEC 60068-2-21, *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*