INTERNATIONAL STANDARD

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Measurement of quartz crystal unit parameters –

Part 7:
Measurement of activity and frequency dips of quartz crystal units

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MEASUREMENT OF QUARTZ CRYSTAL UNIT PARAMETERS –

Part 7: Measurement of activity and frequency dips of quartz crystal units

FOREWORD

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International Standard IEC 60444-7 has been prepared by IEC technical committee 49: Piezoelectric and dielectric devices for frequency control and selection.

The text of this standard is based on the following documents:

FDIS	Report on voting
49/637/FDIS	49/664/RVD

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

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

This standard forms Part 7 of a series of publications dealing with measurements of quartz crystal unit parameters

IEC 60444 consists of the following parts, under the general title *Measurement of quartz crystal unit parameters:*

Part 1: Basic method for the measurement of resonance frequency and resonance resistance of quartz crystal units by zero phase technique in a pi-network

Part 2: Phase offset method for measurement of motional capacitance of quartz crystal units

Part 4: Method for the measurement of the load resonance frequency f_L, load resonance resistance R_L and the calculation of other derived values of quartz crystal units, up to 30 MHz

Part 5: Methods for the determination of equivalent electrical parameters using automatic network analyzer techniques and error correction

Part 6: Measurement of drive level dependence (DLD)

Part 7: Measurement of activity and frequency dips of quartz crystal units

Part 8: Test fixture for surface mounted quartz crystal units

The committee has decided that the contents of this publication will remain unchanged until 2008. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

INTRODUCTION

The tolerable activity dips of resonant resistance and frequency (Bandbreak) will be specified in the detail specification. The measurement and evaluation of the activity/frequency dip for the quartz crystal unit requires special consideration as it uses the linear least squares method.

MEASUREMENT OF QUARTZ CRYSTAL UNIT PARAMETERS –

Part 7: Measurement of activity and frequency dips of quartz crystal units

1 Scope

This standard applies to activity and frequency dips for quartz crystal units over a temperature range.