

McGraw-Hill

**Dictionary of
Computing &
Communications**

McGraw-Hill

New York Chicago San Francisco Lisbon London Madrid
Mexico City Milan New Delhi San Juan Seoul Singapore
Sydney Toronto

Materials in this dictionary are derived from the McGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS, Sixth Edition, copyright © 2003 by The McGraw-Hill Companies, Inc. All rights reserved.

McGRAW-HILL DICTIONARY OF COMPUTING & COMMUNICATIONS, copyright © 2003 by The McGraw-Hill Companies, Inc. All rights reserved. Printed in the United States of America. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

1 2 3 4 5 6 7 8 9 0 DOC/DOC 0 9 8 7 6 5 4 3

ISBN 0-07-142178-5



This book is printed on recycled, acid-free paper containing a minimum of 50% recycled, de-inked fiber.

This book was set in Helvetica Bold and Novarese Book by TechBooks, Fairfax, Virginia. It was printed and bound by RR Donnelley, The Lakeside Press.

McGraw-Hill books are available at special quantity discounts to use as premiums and sales promotions, or for use in corporate training programs. For more information, please write to the Director of Special Sales, Professional Publishing, McGraw-Hill, Two Penn Plaza, New York, NY 10121-2298. Or contact your local bookstore.

Library of Congress Cataloging-in-Publication Data

McGraw-Hill dictionary of computing and communications/McGraw-Hill.

p. cm.

ISBN 0-07-142178-5

1. Computer science—Dictionaries. 2. Telecommunication—Dictionaries.
3. Engineering—Dictionaries. I. The McGraw-Hill Companies, Inc.

QA76.15D52634 2003

004'.03—dc21

2003051209

crystal-stabilized transmitter

- heard in the background of the desired program. { 'krɒs ,māj-ə'lā-shən }
- cross office switching time** [COMMUN] Time required to connect any input through the switching center to any selected output. { 'krɒs ,ɒf-əs 'swich-iŋ ,tɪm }
- cross-platform computing** [COMPUT SCI] The use of very similar user interfaces for versions of programs running on different operating systems and computer architectures. { ,krɒs |plət,form kəm'pyüd-iŋ }
- cross-referencing program** [COMPUT SCI] A computer program used in debugging that produces indexed lists of both the variable names and the statement numbers of the source program. { |'krɒs 'ref-rəns-iŋ ,prɔ-grəm }
- crosstalk** [COMMUN] **1.** The sound heard in a receiver along with a desired program because of cross modulation or other undesired coupling to another communication channel; it is also observed between adjacent pairs in a telephone cable. **2.** Interaction of audio and video signals in an analog television system, causing video modulation of the audio carrier or audio modulation of the video signal at some point. **3.** Interaction of the chrominance and luminance signals in an analog color television receiver. { 'krɒs,tɔk }
- crosstalk coupling** [COMMUN] The cross coupling between speech communications channels or their component parts. Also known as crosstalk loss. { 'krɒs,tɔk ,kəp-liŋ }
- crosstalk level** [COMMUN] Volume of crosstalk energy, measured in decibels, referred to a reference level. { 'krɒs,tɔk ,lev-əl }
- crosstalk loss** See crosstalk coupling. { 'krɒs ,tɔk ,ləs }
- crosstalk unit** [COMMUN] A measure of the coupling between two circuits; the number of crosstalk units is 1 million times the ratio of the current or voltage at the observing point to the current or voltage at the origin of the disturbing signal, the impedances at these points being equal. Abbreviated cu. { 'krɒs,tɔk ,yü-nət }
- CRT** See cathode-ray tube.
- cryogenic film** [COMPUT SCI] A storage element using superconducting thin films of lead at liquid-helium temperature. { ,krɪ-ə'jen-ik 'film }
- cryptanalysis** [COMMUN] Steps and operations performed in converting encrypted messages into plain text without previous knowledge of the key employed. { ,krip-tə'nal-ə-səs }
- cryptochannel** [COMMUN] A complete system of communication that uses electronic encryption and decryption equipment and has two or more radio or wire terminals. { |krip-tō'chan-əl }
- cryptogram** [COMMUN] Information written in code or cipher. { 'krip-tə,gram }
- cryptographic algorithm** [COMMUN] An unchanging set of rules or steps for enciphering and deciphering messages in a cipher system. { |krip-tə'graf-ik 'al-gə,rɪθ-əm }
- cryptographic bitstream** [COMMUN] An unending sequence of digits which is combined with ciphertext to produce plaintext or with plaintext to recover ciphertext in a stream cipher system. { |krip-tə'graf-ik 'bit,stri:m }
- cryptographic key** [COMMUN] A sequence of numbers or characters selected by the user of a cipher system to implement a cryptographic algorithm for enciphering and deciphering messages. Also known as key. { |krip-tə'graf-ik 'kē }
- cryptography** [COMMUN] The science of preparing messages in a form which cannot be read by those not privy to the secrets of the form. { krip'täg-rə-fē }
- cryptology** [COMMUN] The science of preparing messages in forms which are intended to be unintelligible to those not privy to the secrets of the form, and of deciphering such messages. { krip'täl-ə-jē }
- cryptopart** [COMMUN] One of several portions of a cryptotext; each cryptopart bears a different message indicator. { 'krip-tō,pärt }
- cryptotext** [COMMUN] In cryptology, a text of visible writing which conveys no intelligible meaning in any language, or which apparently conveys an intelligible meaning that is not the real meaning. { 'krip-tō,tekst }
- crystal-audio receiver** [ELECTR] Similar to the crystal-video receiver, except for the path detection bandwidth which is audio rather than video. { |krist-əl |ɒd-ē.ɔri'sē-vər }
- crystal-controlled transmitter** [ELECTR] A transmitter whose carrier frequency is directly controlled by the electromechanical characteristics of a quartz crystal unit. { |krist-əl kən'trɔld 'tranz ,mid-ər }
- crystal detector** [ELECTR] **1.** A crystal used to rectify a modulated radio-frequency signal to obtain the audio or video signal directly. **2.** A crystal diode used in a microwave receiver to combine an incoming radio-frequency signal with a local oscillator signal to produce an intermediate-frequency signal. { 'krist-əl di'tek-tər }
- crystal diode** See semiconductor diode. { |krist-əl 'dī,ɒd }
- crystal filter** [ELECTR] A highly selective tuned circuit employing one or more quartz crystals; sometimes used in intermediate-frequency amplifiers of communication receivers to improve the selectivity. { |krist-əl 'fil-tər }
- crystal mixer** [ELECTR] A mixer that uses the nonlinear characteristic of a crystal diode to mix two frequencies; widely used in radar receivers to convert the received radar signal to a lower intermediate-frequency value by mixing it with a local oscillator signal. { |krist-əl 'mik-sər }
- crystal oscillator** [ELECTR] An oscillator in which the frequency of the alternating-current output is determined by the mechanical properties of a piezoelectric crystal. Also known as piezoelectric oscillator. { |krist-əl 'äs-ə,lād-ər }
- crystal rectifier** See semiconductor diode. { |krist-əl 'rek-tə,fī-ər }
- crystal-stabilized transmitter** [ELECTR] A transmitter employing automatic frequency control, in which the reference frequency is that of a crystal oscillator. { |krist-əl |stā-bə,līzd 'tranz ,mid-ər }