

# **FIBER OPTICS STANDARD DICTIONARY**

THIRD EDITION

• fiber optic filter • fiber optic flip-flop • fiber optic flood illuminator

**MARTIN H. WEIK**

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Cover Design: Saïd Sayrafiezadeh, Emdash Inc.  
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Printed in the United States of America

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England

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Victoria, Australia

Chapman & Hall GmbH  
Postfach 100 263  
D-69442 Weinheim  
Germany

International Thomson Editores  
Campos Eliseos 385, Piso 7  
Col. Polanco  
11560 Mexico D.F.  
Mexico

International Thomson Publishing-Japan  
Hirakawacho-cho Kyowa Building, 3F  
1-2-1 Hirakawacho-cho  
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1 2 3 4 5 6 7 8 9 10 XXX 01 00 99 98 97

Library of Congress Cataloging-in-Publication Data

Weik, Martin H.

Fiber optics standard dictionary / Martin H. Weik. — 3rd ed.  
p. cm.

Includes bibliographical references.  
ISBN 0-412-12241-3 (alk. paper)

1. Optional communications—Dictionaries. 2. Fiber optics—  
Dictionaries. I. Title.

TK5102.W45 1997  
621.36'92—dc21

97-6013  
CIP

British Library Cataloguing in Publication Data available

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See also database, database management system, data medium.

**area:** See antenna effective area, blanketing area, blind area, broadcast area, cladding tolerance area, coherence area, controlled area, core area, core tolerance area, exchange area, input area, local service area, maximum calling area, output area, restricted area, technical area, white area.

**area broadcast station:** 1. A land station responsible for radio broadcasting to a specific geographical area, i.e., a broadcast area, of the Earth, such as a land station in a cellular telephone system. *Note:* Area broadcast stations may be interconnected with fiber optic nets. 2. A radio station responsible for broadcasting to one of the 12 numbered areas into which the world has been divided for operating the merchant ship broadcast system. See also broadcast, broadcast area, cellular telephone, fiber optic net, interconnection.

**area code:** A telephone system number that has been assigned to a specific geographical area. See also address, code, telephone system.

**area network:** See local area network, metropolitan area network, wide area network.

**area telephone service:** See inward wide area telephone service, outward wide area telephone service.

**argument:** 1. An independent variable. 2. Any value of an independent variable. *Note:* Examples of arguments are search keys, numbers that identify the location of data in a table, and the  $\Theta$  in  $\sin \Theta$ . See also key, variable.

**arithmetic check:** *Synonym* mathematical check.

**Armed Forces Radio Service:** A radio broadcasting service that is operated by and for the personnel of the armed services in the area covered by the broadcast. *Common abbreviation:* AFRS. *Note 1:* An example of an AFRS is the radio service operated by the U.S. Army for U.S. and allied military personnel on duty in overseas areas. *Note 2:* Signals to Armed Forces Radio Service broadcasting stations may be sent via fiber optic links. See also broadcast, broadcast area, fiber optic link, station.

**armor:** In a communications cable, such as a fiber optic cable, a component that (a) protects the critical internal components, such as buffer tubes, optical fibers, or electrical conductors, from damage from external environmental conditions, such as mechanical abuse, rodent attack, fish bite, and abrasion, (b) usually consists of a steel or aluminum tape wrapped about an inner jacket that covers the critical internal components, and (c) usually is covered by an outer jacket. *Note:*

Armor usually is used on cables installed in harsh environments, such as beach and river crossing cables, ship-to-shore tethered cables, and aerial inserts. See also aerial insert, cable, component, conductor, fiber optic cable, jacket, optical fiber, overarmor, tethered cable.

**array:** 1. An arrangement of elements in one or more dimensions. 2. In a programming language, an aggregate that consists of data objects with identical attributes, each of which may be uniquely referenced. See antenna array, attribute, broadside antenna array, collinear antenna array, field programmable logic array, planar array, programmable logic array, sensor array, solar array, uniform linear array. See also matrix.

**arrester:** A device that protects hardware, such as systems, subsystems, circuits, and equipment, from voltage or current surges that may be produced by lightning or an electromagnetic pulse (EMP). *Note:* If the hardware is adequately protected, associated software may also be adequately protected. See also air terminal, current, electromagnetic pulse, hardware, lightning down conductor, lightning protection subsystem, protector, voltage.

**arterial cable:** In a fiber optic transmission system, a multifiber cable that is used in a trunk in a fiber optic net. See also fiber optic cable, fiber optic net, fiber optic transmission system, fiber optic trunk, multifiber cable.

**arteriovenous oximeter:** See fiber optic arteriovenous oximeter.

**articulation angle:** See borescope articulation angle.

**articulation index:** A measure of the intelligibility of voice signals. *Note 1:* The articulation index is usually expressed as a percentage of speech units that are understood by the listener when heard out of context. *Note 2:* The articulation index is affected by noise, interference, and distortion. See also distortion, intelligibility, interference, noise, optical signal, signal, voice intelligibility, voice service.

**artificial intelligence:** Pertaining to equipment that performs functions that (a) are usually associated with human intelligence or (b) are similar to functions performed by humans, such as reasoning, learning, decision making, and self-improvement. *Common abbreviation:* AI. *Note:* Artificial intelligence is the branch of computer science that attempts to approximate the results of human reasoning by organizing and manipulating factual and heuristic knowledge. Areas of AI activity include expert systems, natural language under-

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