

PACKAGE ID - 001288IBMPC00 2DBPM

KWIC TITLE - Computation of Diffractive Beam Propagation of
Monochromatic Light

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LIMITATION CODE -COPY **AUDIENCE CODE** - LIM

COMPLETION DATE - 07/26/1997 **PUBLICATION DATE** - 07/26/1997

DESCRIPTION - Computation of diffractive beam propagation of
monochromatic light through a 1-dimensional (slab) structure
defined by a piecewise continuous complex index of refraction.
Finite difference equations are fourth-order-accurate in the
lateral grid size and include discontinuities of higher-order field
derivatives at dielectric interfaces. Variable grid spacing is
allowed, and all dielectric interfaces are assumed to coincide with
grid points.

PACKAGE CONTENTS - Media Directory; Software Abstract; Media Includes
Source Code, Executables, Auxiliary Material;

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 1 3.5 Diskette

METHOD OF SOLUTION - Tridiagonal matrix inversion using the Thomas
algorithm.

COMPUTER - IBM PC

OPERATING SYSTEMS - PC running Microsoft Powerstation FORTRAN.

PROGRAMMING LANGUAGES - na

SOFTWARE LIMITATIONS - Stated in Description

SOURCE CODE AVAILABLE (Y/N) - Y

RELATED SOFTWARE - Graphics program WINDOW PLOT that plots field
profiles.

OTHER PROG/OPER SYS INFO - 64 bit double-precision capability

HARDWARE REQS - 64 bit double precision capability

ABSTRACT STATUS - Released AS-IS 2/26/1999

SUBJECT CLASS CODE - W

KEYWORDS -

E S T S C
ENERGY SCIENCE & TECHNOLOGY SOFTWARE CENTER
SOFTWARE ABSTRACT

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COMPUTER PROGRAM DOCUMENTATION
C CODES
DATA

EDB SUBJECT CATEGORIES -
990200

SPONSOR - DOE/DP

PACKAGE TYPE - AS - IS