NAME

cupgtr.f −

SYNOPSIS

Functions/Subroutines

subroutine **cupgtr** (UPLO, N, AP, TAU, Q, LDQ, WORK, INFO)

CUPGTR

Function/Subroutine Documentation

subroutine cupgtr (characterUPLO, integerN, complex, dimension(*)AP, complex, dimension(*)TAU, complex, dimension(ldq, *)Q, integerLDQ, complex, dimension(*)WORK, integerINFO)

CUPGTR

Purpose:

CUPGTR generates a complex unitary matrix Q which is defined as the product of n-1 elementary reflectors H(i) of order n, as returned by CHPTRD using packed storage:

if UPLO = ’U’, Q = H(n-1) . . . H(2) H(1),

if UPLO = ’L’, Q = H(1) H(2) . . . H(n-1).

Parameters:

UPLO

UPLO is CHARACTER*1
= ’U’: Upper triangular packed storage used in previous call to CHPTRD;
= ’L’: Lower triangular packed storage used in previous call to CHPTRD.

N

N is INTEGER
The order of the matrix Q. N >= 0.

AP

AP is COMPLEX array, dimension (N*(N+1)/2)
The vectors which define the elementary reflectors, as returned by CHPTRD.

TAU

TAU is COMPLEX array, dimension (N-1)
TAU(i) must contain the scalar factor of the elementary reflector H(i), as returned by CHPTRD.

Q

Q is COMPLEX array, dimension (LDQ,N)
The N-by-N unitary matrix Q.

LDQ

LDQ is INTEGER
The leading dimension of the array Q. LDQ >= max(1,N).

WORK

WORK is COMPLEX array, dimension (N-1)

INFO

INFO is INTEGER
= 0: successful exit
< 0: if INFO = -i, the i-th argument had an illegal value

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Definition at line 115 of file cupgtr.f.

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