

NAG Fortran Library Routine Document

F06GRF (ZDOTUI)

Note: before using this routine, please read the Users' Note for your implementation to check the interpretation of *bold italicised* terms and other implementation-dependent details.

1 Purpose

F06GRF (ZDOTUI) returns, via the function name, the value of the scalar product

$$x^T y$$

where x is a sparse complex vector stored in compressed form, and y is a complex vector in full storage form.

2 Specification

```
complex*16 FUNCTION F06GRF (NZ, X, INDX, Y)
      INTEGER                NZ, INDX(*)
complex*16                X(*), Y(*)
```

The routine may be called by its BLAS name *zdotui*.

3 Description

None.

4 References

None.

5 Parameters

- | | | |
|----|--|--------------|
| 1: | NZ – INTEGER | <i>Input</i> |
| | <i>On entry:</i> the number of elements in the compressed vector x . | |
| 2: | X(*) – complex*16 array | <i>Input</i> |
| | <i>On entry:</i> the compressed vector x . | |
| 3: | INDX(*) – INTEGER array | <i>Input</i> |
| | <i>On entry:</i> the indices of the elements in the compressed vector x . | |
| 4: | Y(*) – complex*16 array | <i>Input</i> |
| | <i>On entry:</i> the vector y . Only elements corresponding to indices in INDX are accessed. | |

6 Error Indicators and Warnings

None.