

# NAG Library Routine Document

## F06KFF

**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

F06KFF copies a real vector to a complex vector.

### 2 Specification

```
SUBROUTINE F06KFF (N, X, INCX, Y, INCY)
  INTEGER          N, INCX, INCY
  REAL (KIND=nag_wp) X(*)
  COMPLEX (KIND=nag_wp) Y(*)
```

### 3 Description

F06KFF performs the operation

$$y \leftarrow x$$

where  $x$  is an  $n$ -element real vector, and  $y$  is an  $n$ -element complex vector scattered with stride INCX and INCY respectively.

### 4 References

None.

### 5 Parameters

- |    |   |               |
|----|---|---------------|
| 1: | N – INTEGER<br><i>On entry:</i> $n$ , the number of elements in $x$ and $y$ .   | <i>Input</i>  |
| 2: | X(*) – REAL (KIND=nag_wp) array<br><b>Note:</b> the dimension of the array X must be at least $\max(1, 1 + (N - 1) \times  \text{INCX} )$ .<br><i>On entry:</i> the $n$ -element vector $x$ .<br>If $\text{INCX} > 0$ , $x_i$ must be stored in $X(1 + (i - 1) \times \text{INCX})$ , for $i = 1, 2, \dots, N$ .<br>If $\text{INCX} < 0$ , $x_i$ must be stored in $X(1 - (N - i) \times \text{INCX})$ , for $i = 1, 2, \dots, N$ .<br>Intermediate elements of X are not referenced. | <i>Input</i>  |
| 3: | INCX – INTEGER<br><i>On entry:</i> the increment in the subscripts of X between successive elements of $x$ .  | <i>Input</i>  |
| 4: | Y(*) – COMPLEX (KIND=nag_wp) array<br><b>Note:</b> the dimension of the array Y must be at least $\max(1, 1 + (N - 1) \times  \text{INCY} )$ .<br><i>On exit:</i> the vector $y$ .<br>If $\text{INCY} > 0$ , $y_i$ will be stored in $Y(1 + (i - 1) \times \text{INCY})$ , for $i = 1, 2, \dots, N$ .<br>If $\text{INCY} < 0$ , $y_i$ will be stored in $Y(1 - (N - i) \times \text{INCY})$ , for $i = 1, 2, \dots, N$ .  | <i>Output</i> |

Intermediate elements of Y are unchanged.

5: INCY – INTEGER

*Input*

*On entry:* the increment in the subscripts of Y between successive elements of *y*.

## **6 Error Indicators and Warnings**

None.

## **7 Accuracy**

Not applicable.

## **8 Parallelism and Performance**

Not applicable.

## **9 Further Comments**

None.

## **10 Example**

None.

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