

**NAME**

`creal`, `crealf`, `creall` - get real part of a complex number

**SYNOPSIS**

```
#include <complex.h>
```

```
double creal(double complex z);
```

```
float crealf(float complex z);
```

```
long double creall(long double complex z);
```

Link with `-lm`.

**DESCRIPTION**

The `creal()` function returns the real part of the complex number `z`.

One has:

$$z = \text{creal}(z) + I * \text{cimag}(z)$$
**VERSIONS**

These functions first appeared in glibc in version 2.1.

**ATTRIBUTES**

**Multithreading** (see [pthread\(7\)](#))

The `creal()`, `crealf()`, and `creall()` functions are thread-safe.

**CONFORMING TO**

C99.

**NOTES**

The gcc supports also `__real__`. That is a GNU extension.

**SEE ALSO**

[cabs\(3\)](#), [cimag\(3\)](#), [complex\(7\)](#)

**COLOPHON**

This page is part of release 3.74 of the Linux *man-pages* project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <http://www.kernel.org/doc/man-pages/>.