

**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**

These functions return 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**

For an explanation of the terms used in this section, see [attributes\(7\)](#).

| Interface                   | Attribute     | Value   |
|-----------------------------|---------------|---------|
| creal(), crealf(), creall() | Thread safety | MT-Safe |

**CONFORMING TO**

C99, POSIX.1-2001, POSIX.1-2008.

**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 4.16 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 <https://www.kernel.org/doc/man-pages/>.