

**NAME**

`cabs`, `cabsf`, `cabsl` – absolute value of a complex number

**SYNOPSIS**

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

```
double cabs(double complex z);
```

```
float cabsf(float complex z);
```

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

Link with `-lm`.

**DESCRIPTION**

These functions return the absolute value of the complex number  $z$ . The result is a real number.

**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
<code>cabs()</code> , <code>cabsf()</code> , <code>cabsl()</code>	Thread safety	MT-Safe

**CONFORMING TO**

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

**NOTES**

The function is actually an alias for  $\text{hypot}(a, b)$  (or, equivalently,  $\text{sqrt}(a*a + b*b)$ ).

**SEE ALSO**

[abs\(3\)](#), [cimag\(3\)](#), [hypot\(3\)](#), [complex\(7\)](#)

**COLOPHON**

This page is part of release 5.02 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/>.