

NAME

`csqrt`, `csqrtf`, `csqrtl` – complex square root

SYNOPSIS

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

```
double complex csqrt(double complex z);
```

```
float complex csqrtf(float complex z);
```

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

Link with `-lm`.

DESCRIPTION

These functions calculate the complex square root of z , with a branch cut along the negative real axis. (That means that $csqrt(-1+eps*I)$ will be close to I while $csqrt(-1-eps*I)$ will be close to $-I$, if eps is a small positive 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>csqrt()</code> , <code>csqrtf()</code> , <code>csqrtl()</code>	Thread safety	MT-Safe

CONFORMING TO

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

SEE ALSO

[cabs\(3\)](#), [cexp\(3\)](#), [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/>.