

NAME

csqrt, csqrtf, csqrtl – complex square root

LIBRARY

Math library (*libm*, *-lm*)

SYNOPSIS

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

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

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

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

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 were added in glibc 2.1.

ATTRIBUTES

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

Interface	Attribute	Value
csqrt(), csqrtf(), csqrtl()	Thread safety	MT-Safe

STANDARDS

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

SEE ALSO

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