

**NAME**

**ccosh**, **ccoshf**, **csinh**, **csinhf**, **ctanh**, **ctanhf** - complex hyperbolic functions

**LIBRARY**

Math Library (libm, -lm)

**SYNOPSIS**

**#include <complex.h>**

*double complex*

**ccosh**(*double complex* z);

*float complex*

**ccoshf**(*float complex* z);

*double complex*

**csinh**(*double complex* z);

*float complex*

**csinhf**(*float complex* z);

*double complex*

**ctanh**(*double complex* z);

*float complex*

**ctanhf**(*float complex* z);

**DESCRIPTION**

The **ccosh**(), **csinh**(), and **ctanh**() functions compute the hyperbolic cosine, sine, and tangent of the complex number *z*, respectively. The **ccoshf**(), **csinhf**(), and **ctanhf**() functions perform the same operations in *float* precision.

**SEE ALSO**

**cacosh**(3), **ccos**(3), **complex**(3), **cosh**(3), **math**(3), **sinh**(3), **tanh**(3)

**STANDARDS**

These functions conform to ISO/IEC 9899:1999 ("ISO C99").