

NAME

ccos, ccosh, ccosl – complex cosine function

LIBRARY

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

SYNOPSIS

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

```
double complex ccos(double complex z);
```

```
float complex ccosh(float complex z);
```

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

DESCRIPTION

These functions calculate the complex cosine of *z*.

The complex cosine function is defined as:

$$\operatorname{ccos}(z) = (\exp(i * z) + \exp(-i * z)) / 2$$

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
ccos(), ccosh(), ccosl()	Thread safety	MT-Safe

STANDARDS

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

SEE ALSO

cabs(3), **cacos(3)**, **csin(3)**, **ctan(3)**, **complex(7)**