

NAME

ccos, ccosf, ccosl – complex cosine function

LIBRARY

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

SYNOPSIS

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

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

```
float complex ccosf(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:

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

ATTRIBUTES

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

Interface	Attribute	Value
ccos(), ccosf(), ccosl()	Thread safety	MT-Safe

STANDARDS

C11, POSIX.1-2008.

HISTORY

glibc 2.1. C99, POSIX.1-2001.

SEE ALSO

[cabs\(3\)](#), [cacos\(3\)](#), [csin\(3\)](#), [ctan\(3\)](#), [complex\(7\)](#)