

**NAME**

ccos, ccosf, ccosl - complex cosine function

**SYNOPSIS**

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

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

```
float complex ccosf(float complex z);
```

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

Link with *-lm*.

**DESCRIPTION**

The complex cosine function is defined as:

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

These functions first appeared in glibc in version 2.1.

**CONFORMING TO**

C99.

**SEE ALSO**

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

**COLOPHON**

This page is part of release 3.74 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 <http://www.kernel.org/doc/man-pages/>.