



## Rocky Enterprise Linux 9.2 Manual Pages on command 'ctanh.3'

C:\>man ctanh.3

CTANH(3)                   Linux Programmer's Manual                   CTANH(3)

### NAME

ctanh, ctanhf, ctanh1 - complex hyperbolic tangent

### SYNOPSIS

```
#include <complex.h>

double complex ctanh(double complex z);
float complex ctanhf(float complex z);
long double complex ctanh1(long double complex z);

Link with -lm.
```

### DESCRIPTION

These functions calculate the complex hyperbolic tangent of z.

The complex hyperbolic tangent function is defined mathematically as:

$$\text{ctanh}(z) = \text{csinh}(z) / \text{ccosh}(z)$$

### VERSIONS

These functions first appeared in glibc in version 2.1.

### ATTRIBUTES

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

??

?Interface                   ? Attribute   ? Value   ?

??

?ctanh(), ctanhf(), ctanh1() ? Thread safety ? MT-Safe ?

??

## CONFORMING TO

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

## SEE ALSO

`cabs(3)`, `catanh(3)`, `ccosh(3)`, `csinh(3)`, `complex(7)`

## COLOPHON

This page is part of release 5.05 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 <https://www.kernel.org/doc/man-pages/>.

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