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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'catanh.3p' command**

**\$ man catanh.3p**

CATANH(3P)                    POSIX Programmer's Manual                    CATANH(3P)

### PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

### NAME

catanh, catanhf, catanhl ? complex arc hyperbolic tangent functions

### SYNOPSIS

```
#include <complex.h>

double complex catanh(double complex z);

float complex catanhf(float complex z);

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

### DESCRIPTION

The functionality described on this reference page is aligned with the ISO C standard. Any conflict between the requirements described here and the ISO C standard is unintentional. This volume of POSIX.1?2017 defers to the ISO C standard.

These functions shall compute the complex arc hyperbolic tangent of  $z$ , with branch cuts outside the interval  $[-1, +1]$  along the real axis.

### RETURN VALUE

These functions shall return the complex arc hyperbolic tangent value, in the range of a strip mathematically unbounded along the real axis

and in the interval  $[-i/2, +i/2]$  along the imaginary axis.

## ERRORS

No errors are defined.

The following sections are informative.

## EXAMPLES

None.

## APPLICATION USAGE

None.

## RATIONALE

None.

## FUTURE DIRECTIONS

None.

## SEE ALSO

`ctanh()`

The Base Definitions volume of POSIX.1-2017, `<complex.h>`

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