

☰ Documentation

[Accelerate](#) / [vDSP](#) / Conversion to decibel equivalents

API Collection

Conversion to decibel equivalents

Convert vectors that contain power or amplitude data to decibels.

Topics

Converting single-precision power or amplitude values to decibel values

```
static func amplitudeToDecibels<U>(U, zeroReference: Float) -> [Float]
```

Returns single-precision amplitude values converted to decibels.

```
static func powerToDecibels<U>(U, zeroReference: Float) -> [Float]
```

Returns single-precision power values converted to decibel values.

```
static func convert<U, V>(amplitude: U, toDecibels: inout V, zero Reference: Float)
```

Converts single-precision amplitude values to decibel values.

```
static func convert<U, V>(power: U, toDecibels: inout V, zeroReference: Float)
```

Converts single-precision power values to decibel values.

vDSP_vdbcon

Converts single-precision power or amplitude values to decibel values.

Converting double-precision power or amplitude values to decibel values

```
static func amplitudeToDecibels<U>(U, zeroReference: Double) -> [Double]
```

Returns double-precision amplitude values converted to decibel values.

```
static func powerToDecibels<U>(U, zeroReference: Double) -> [Double]
```

Returns double-precision power values converted to decibel values.

```
static func convert<U, V>(amplitude: U, toDecibels: inout V, zeroReference: Double)
```

Converts double-precision amplitude values to decibel values.

```
static func convert<U, V>(power: U, toDecibels: inout V, zeroReference: Double)
```

Converts double-precision power values to decibel values.

vDSP_vdbconD

Converts single-precision power or amplitude values to decibel values.

See Also

Vector conversion functions

☰ Type conversion

Perform element-wise floating-point to integer and integer to floating-point conversion.

☰ Complex vector conversion

Perform element-wise split-complex to interleaved and interleaved to split-complex conversion.

☰ Polar-rectangular conversion

Convert each element of a vector between radius-angle and Cartesian pairs.