

tf.spectral.rfft2d

```
rfft2d(  
    input_tensor,  
    fft_length=None,  
    name=None  
)
```

Defined in [tensorflow/python/ops/spectral_ops.py](#).

See the guide: [Spectral Functions > Discrete Fourier Transforms](#)

2D real-valued fast Fourier transform.

Computes the 2-dimensional discrete Fourier transform of a real-valued signal over the inner-most 2 dimensions of `input`.

Since the DFT of a real signal is Hermitian-symmetric, `RFFT2D` only returns the `fft_length / 2 + 1` unique components of the FFT for the inner-most dimension of `output`: the zero-frequency term, followed by the `fft_length / 2` positive-frequency terms.

Along each axis `RFFT2D` is computed on, if `fft_length` is smaller than the corresponding dimension of `input`, the dimension is cropped. If it is larger, the dimension is padded with zeros.

Args:

- `input`: A **Tensor** of type `float32`. A float32 tensor.
- `fft_length`: A **Tensor** of type `int32`. An int32 tensor of shape [2]. The FFT length for each dimension.
- `name`: A name for the operation (optional).

Returns:

A **Tensor** of type `complex64`. A complex64 tensor of the same rank as `input`. The inner-most 2 dimensions of `input` are replaced with their 2D Fourier transform. The inner-most dimension contains `fft_length / 2 + 1` unique frequency components.

numpy compatibility

Equivalent to `np.fft.rfft2`

Except as otherwise noted, the content of this page is licensed under the [Creative Commons Attribution 3.0 License](#), and code samples are licensed under the [Apache 2.0 License](#). For details, see our [Site Policies](#). Java is a registered trademark of Oracle and/or its affiliates.

Last updated November 2, 2017.

Stay Connected

[Blog](#)

[GitHub](#)

[Twitter](#)

Support

[Issue Tracker](#)

[Release Notes](#)

[Stack Overflow](#)

English

[Terms](#) | [Privacy](#)