

## tf.contrib.tpu.cross\_replica\_sum

```
cross_replica_sum(  
    input,  
    name=None  
)
```

Defined in `tensorflow/contrib/tpu/ops/gen_tpu_ops.py`.

An Op to sum inputs across replicated TPU instances. Each instance supplies its own input, and the output of each is the sum of all the inputs.

## Args:

- `input`: A `Tensor`. Must be one of the following types: `float32`. The local input to the sum.
- `name`: A name for the operation (optional).

## Returns:

A `Tensor`. Has the same type as `input`. The sum of all the distributed inputs.

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