

Blocks: 0% | 0/1 [00:00<?, ?it/s]

TypeError Traceback (most recent call last)
~~~setigen/jupyter-notebooks/voltage/03\_custom\_signals.ipynb Cell 20 line 1

```
----> 1 rvb.record(output_file_stem='example_custom_signal',  
 2         num_blocks=1,  
 3         length_mode='num_blocks',  
 4         header_dict={'HELLO': 'test_value',  
 5                     'TELESCOP': 'GBT'},  
 6         verbose=False)
```

File [~~jupyter-notebooks/voltage/././setigen/voltage/backend.py:676](#), in RawVoltageBackend.record(self, output\_file\_stem, obs\_length, num\_blocks, length\_mode, header\_dict, digitize, load\_template, verbose)

```
 674     tqdm.write(f'Creating block {j}...')  
 675     self._make_header(f, header_dict)  
--> 676     v = self.collect_data_block(digitize=digitize,  
 677                               requantize=True,  
 678                               verbose=verbose)  
 680     f.write(xp.array(v, dtype=xp.int8).tobytes())  
 681     if verbose:
```

File [~~jupyter-notebooks/voltage/././setigen/voltage/backend.py:483](#), in RawVoltageBackend.collect\_data\_block(self, digitize, requantize, verbose)

```
 481     # Calculate the real voltage samples from each antenna  
 482     t = time.time()  
--> 483     antennas_v = self.antenna_source.get_samples(num_samples)  
 484     self.sample_stage_t += time.time() - t  
 486     for antenna in range(self.num_antennas):
```

File [~~jupyter-notebooks/voltage/././setigen/voltage/antenna.py:124](#), in Antenna.get\_samples(self, num\_samples)

```
 121     samples = [[self.x.get_samples(num_samples),  
 122               self.y.get_samples(num_samples)]]  
 123     else:  
--> 124     samples = [[self.x.get_samples(num_samples)]]  
 126     self.t_start += num_samples * self.dt  
 127     self.start_obs = False
```

File [~~jupyter-notebooks/voltage/././setigen/voltage/data\\_stream.py:225](#), in DataStream.get\_samples(self, num\_samples)

```
 221     self.v += noise_func(self.ts)  
 223     for signal_func in self.signal_sources:  
 224         # Ensure that the array is of the correct type  
--> 225     signal_v = xp.array(signal_func(self.ts))  
 226     # If there are complex voltages, make sure to cast self.v to complex  
 227     if not xp.iscomplexobj(self.v) and xp.iscomplexobj(signal_v):
```

~~~/setigen/jupyter-notebooks/voltage/03\_custom\_signals.ipynb Cell 20 line 8

```

7 def my_signal(ts):
----> 8     return 0.004 * chirp(t=ts,
9         f0=6002.2e6,
10        t1=rvb.time_per_block,
11        f1=6002.3e6,
12        method='quadratic')

```

File [~/local/lib/python3.10/site-packages/scipy/signal/ waveforms.py:416](#), in chirp(t, f0, t1, f1, method, phi, vertex_zero)

```

265 """Frequency-swept cosine generator.
266
267 In the following, 'Hz' should be interpreted as 'cycles per unit';
(...)
413
414 """
415 # 'phase' is computed in _chirp_phase, to make testing easier.
--> 416 phase = _chirp_phase(t, f0, t1, f1, method, vertex_zero)
417 # Convert phi to radians.
418 phi *= pi / 180

```

File [~/local/lib/python3.10/site-packages/scipy/signal/ waveforms.py:429](#), in _chirp_phase(t, f0, t1, f1, method, vertex_zero)

```

422 def _chirp_phase(t, f0, t1, f1, method='linear', vertex_zero=True):
423     """
424     Calculate the phase used by `chirp` to generate its output.
425
426     See `chirp` for a description of the arguments.
427
428     """
--> 429     t = asarray(t)
430     f0 = float(f0)
431     t1 = float(t1)

```

File [copy/_core/core.pyx:1475](#), in copy._core.core.ndarray_base.__array__()

TypeError: Implicit conversion to a NumPy array is not allowed. Please use `.get()` to construct a NumPy array explicitly.