

```
In [1]: import pickle
        from AttenuationFunctionsTesting import max_and_normalized_max_plots

        with open('near_field_df.pkl', 'rb') as pkl_file:
            df = pickle.load(pkl_file)
            print("Completed: Loaded data from the near_field_df.pkl file")

        #print(df)
```

Completed: Loaded data from the near_field_df.pkl file

```
In [2]: df
```

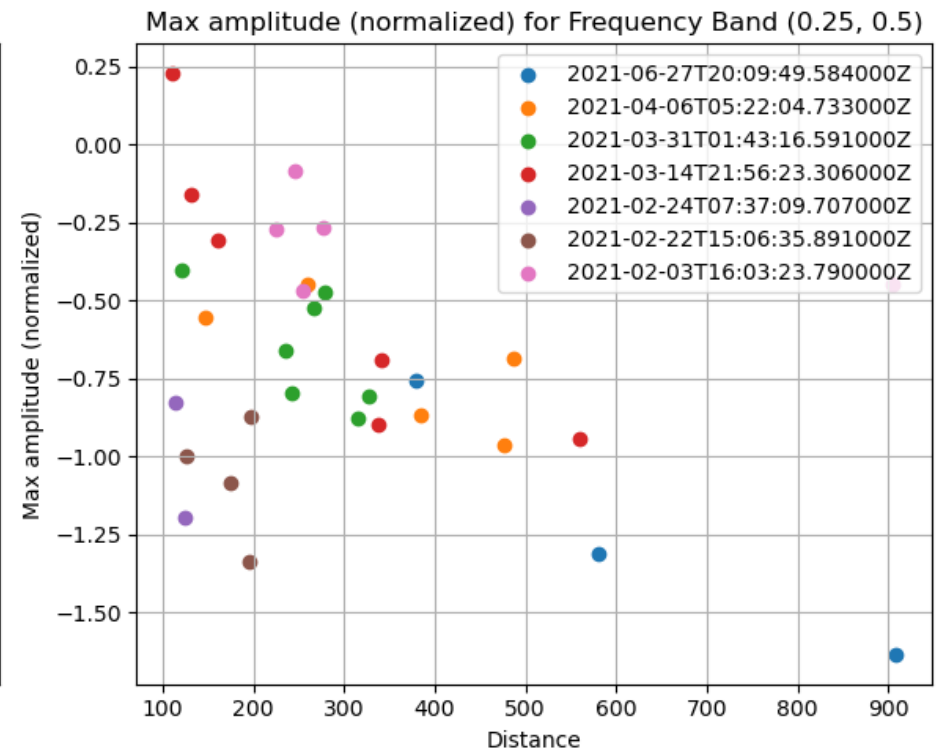
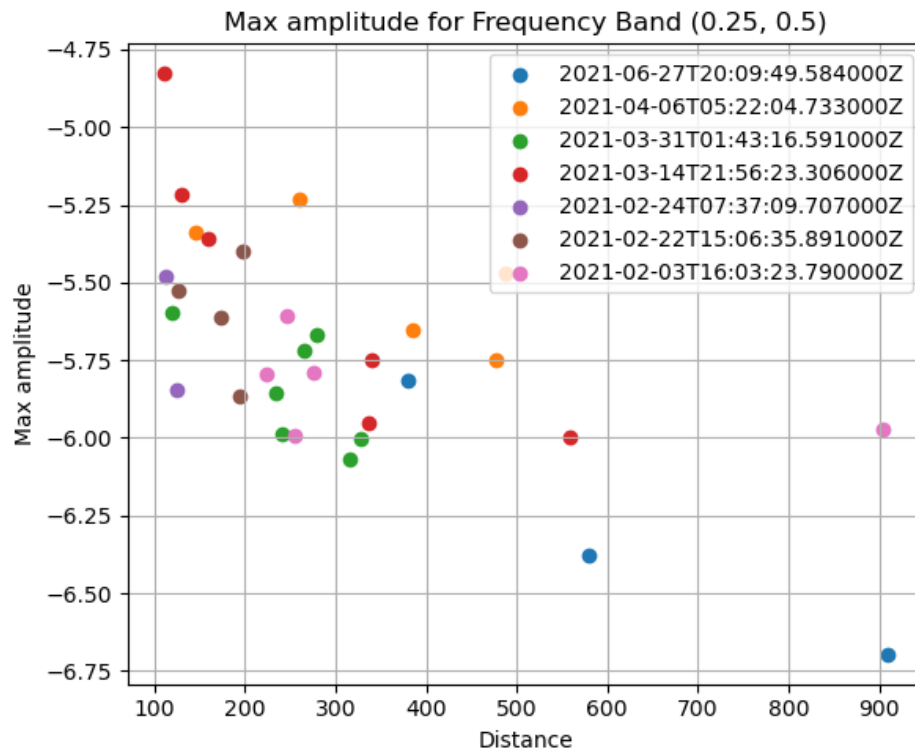
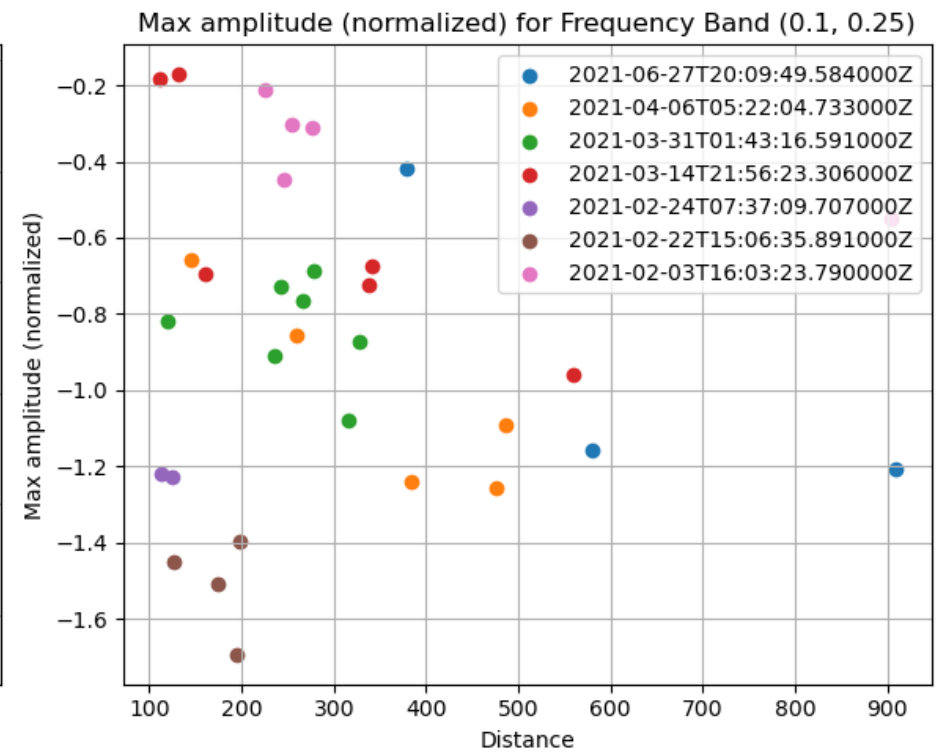
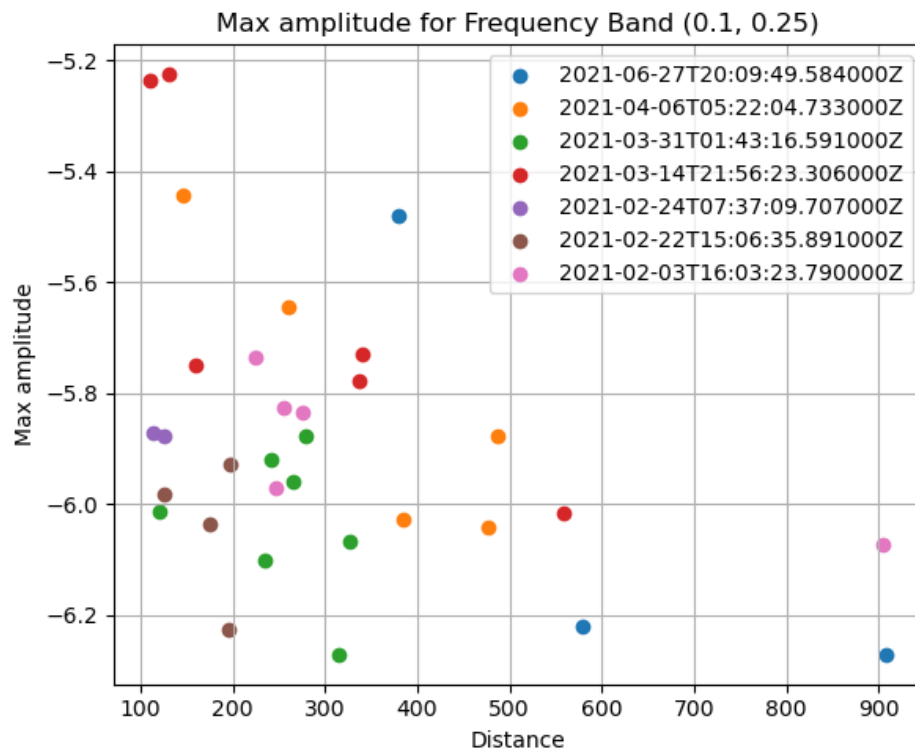
Out [2]:	station name	distance	event	location	magnitude	mag type	max amplitude	frequency band	max amplitude (normalized)
0	R4002	908.268837	2021-06-27T20:09:49.584000Z	[16.5489, -76.277, 10.0]	4.20	ml	5.346624e-07	(0.1, 0.25)	-1.208506
1	RCE1F	379.453808	2021-06-27T20:09:49.584000Z	[16.5489, -76.277, 10.0]	4.20	ml	3.295512e-06	(0.1, 0.25)	-0.418662
2	RD4D8	579.622998	2021-06-27T20:09:49.584000Z	[16.5489, -76.277, 10.0]	4.20	ml	6.022809e-07	(0.1, 0.25)	-1.156786
3	R4002	908.268837	2021-06-27T20:09:49.584000Z	[16.5489, -76.277, 10.0]	4.20	ml	2.001710e-07	(0.25, 0.5)	-1.635184
4	RCE1F	379.453808	2021-06-27T20:09:49.584000Z	[16.5489, -76.277, 10.0]	4.20	ml	1.524280e-06	(0.25, 0.5)	-0.753521
...
155	R34A9	276.448965	2021-02-03T16:03:23.790000Z	[19.0905, -68.8785, 8.0]	4.18	md	1.308984e-06	(1.0, 1.25)	-0.358744
156	R3E0C	904.159956	2021-02-03T16:03:23.790000Z	[19.0905, -68.8785, 8.0]	4.18	md	4.754038e-07	(1.0, 1.25)	-0.798616
157	R4DB9	245.897259	2021-02-03T16:03:23.790000Z	[19.0905, -68.8785, 8.0]	4.18	md	4.685029e-06	(1.0, 1.25)	0.195034
158	RD17E	224.707141	2021-02-03T16:03:23.790000Z	[19.0905, -68.8785, 8.0]	4.18	md	1.609936e-06	(1.0, 1.25)	-0.268870
159	RD4D8	254.353898	2021-02-03T16:03:23.790000Z	[19.0905, -68.8785, 8.0]	4.18	md	2.013304e-06	(1.0, 1.25)	-0.171769

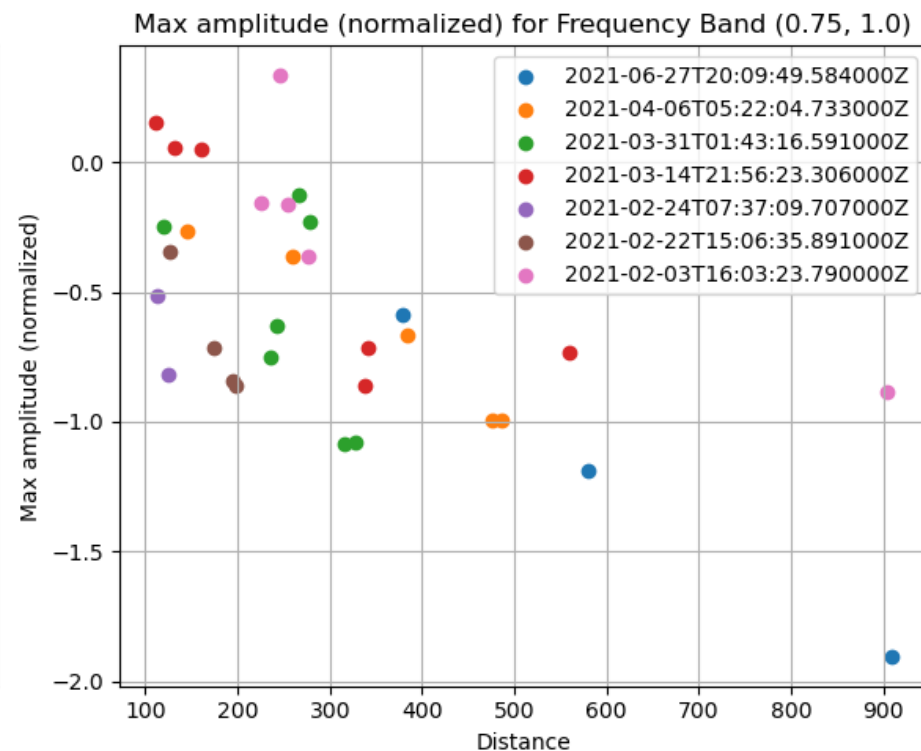
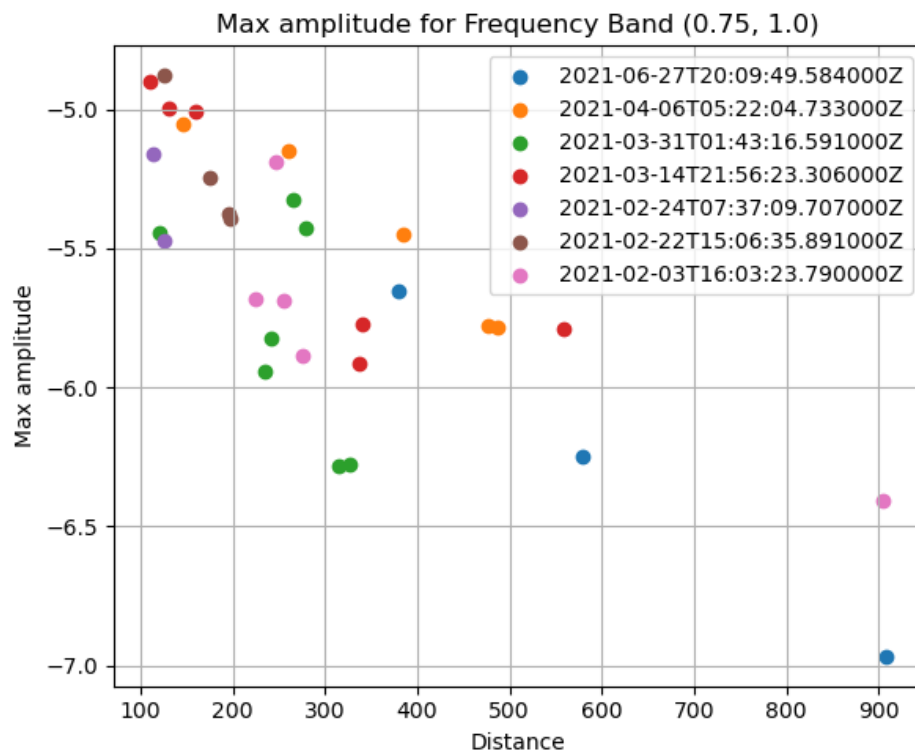
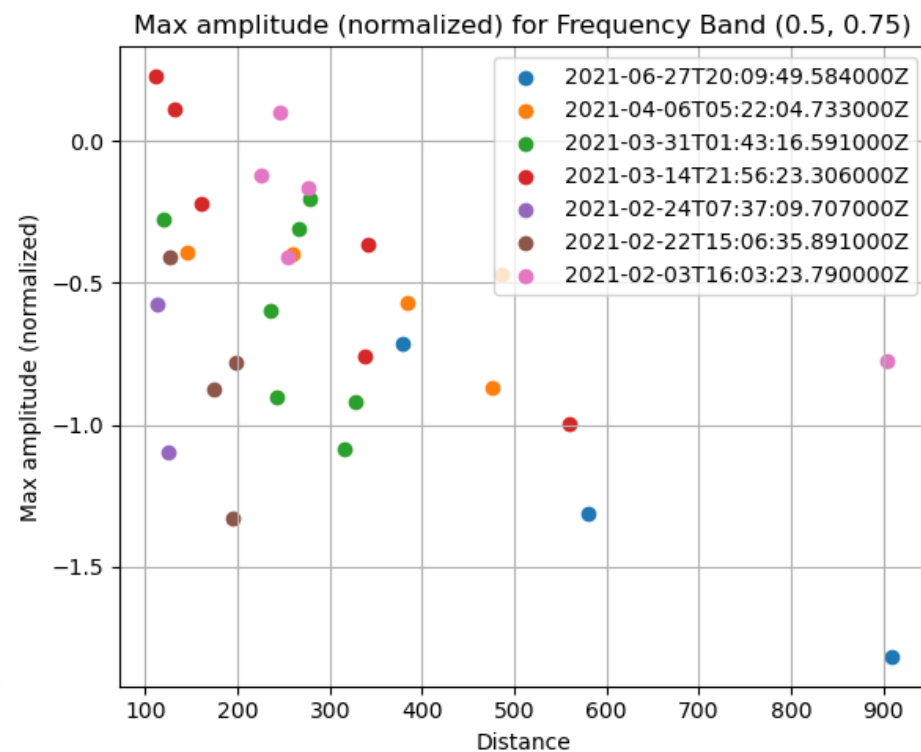
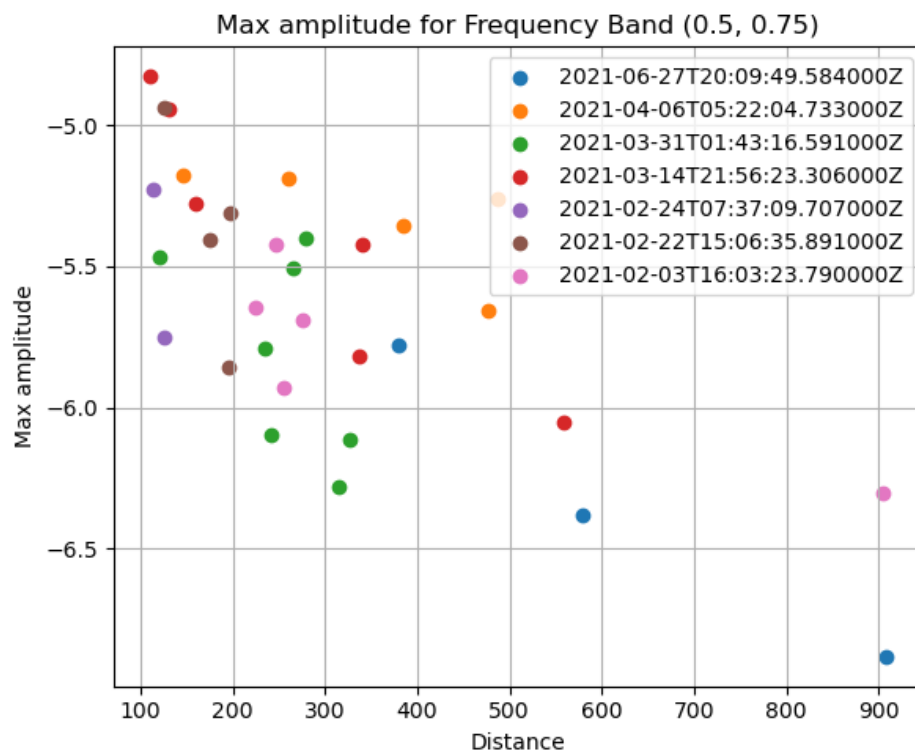
160 rows × 9 columns

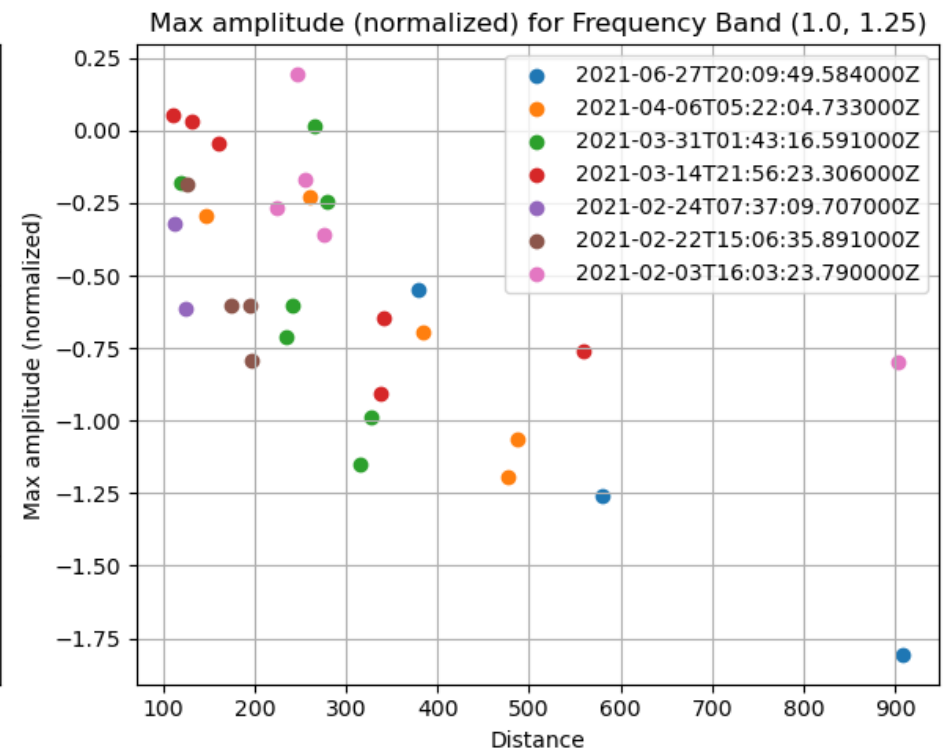
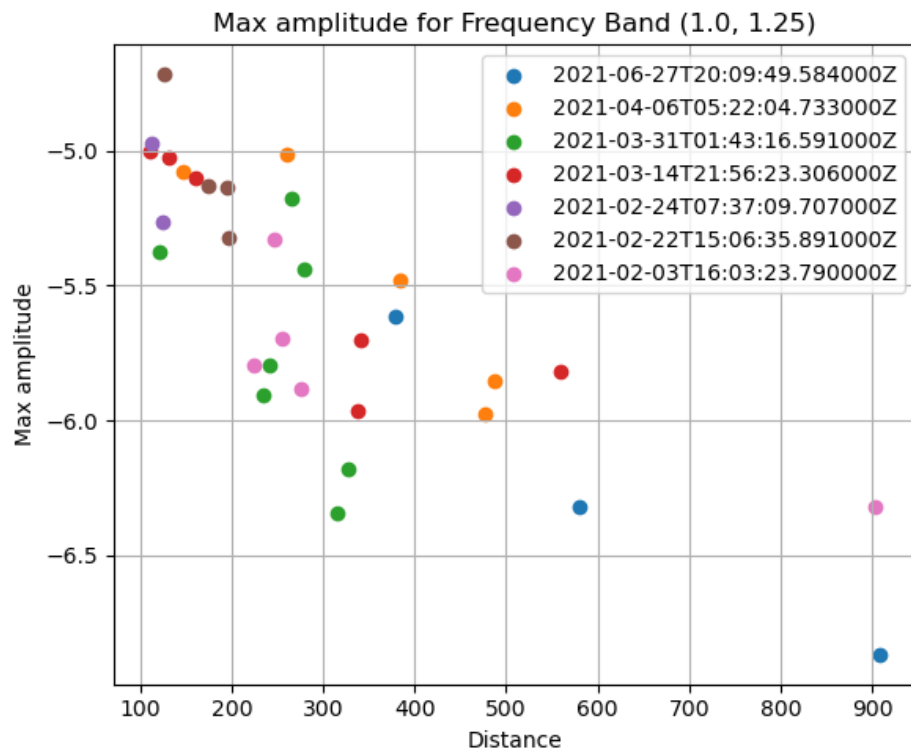
In [3]: `max_and_normalized_max_plots(df)`

/Users/hkunwer/Documents/research/EQenergy/Wiggles/Attenuation/AttenuationFunctionsTesting.py:330: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using `.loc[row_indexer,col_indexer] = value` instead

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy
`filtered_df.loc[:, 'event'] = filtered_df['event'].astype(str)`







```
In [4]: import matplotlib.pyplot as plt
import numpy as np
import pandas as pd

pd.set_option('display.float_format', lambda x: '%.15f' % x)

# Convert 'event' column to string type
df.loc[:, 'event'] = df['event'].astype(str)

# # Get unique events (dates) from the filtered data

unique_events = df['event'].unique()

for target_event in unique_events:

    freqlist = [(0.10, 0.25), (0.25, 0.50), (0.50, 0.75), (0.75, 1.00), (1.00, 1.25)]

    for freq_band in freqlist:
        # Convert 'frequency band' to a tuple with the correct format
        filtered_df = df[df['frequency band'] == freq_band]
```

```

# Filter for the target event in the specified frequency band
filtered_df = filtered_df[filtered_df['event'] == target_event]

print(filtered_df)

if filtered_df.empty:
    continue

fig, axs = plt.subplots(1, 2, figsize=(12, 5))

for event in [target_event]:
    event_data = filtered_df[filtered_df['event'] == event]

    axs[0].scatter(
        event_data['distance'],
        np.log10(event_data['max amplitude']),
        label=event)
    axs[0].set_xlabel('Distance')
    axs[0].set_ylabel('Max amplitude')
    axs[0].set_title(f'Max amplitude for Frequency Band {freq_band}')
    axs[0].legend()
    axs[0].grid(True)

    axs[1].scatter(
        event_data['distance'],
        event_data['max amplitude (normalized)'],
        label=event)
    axs[1].set_xlabel('Distance')
    axs[1].set_ylabel('Max amplitude (normalized)')
    axs[1].set_title(f'Max amplitude (normalized) for Frequency Band {freq_band}')
    axs[1].legend()
    axs[1].grid(True)

plt.tight_layout()
plt.show()

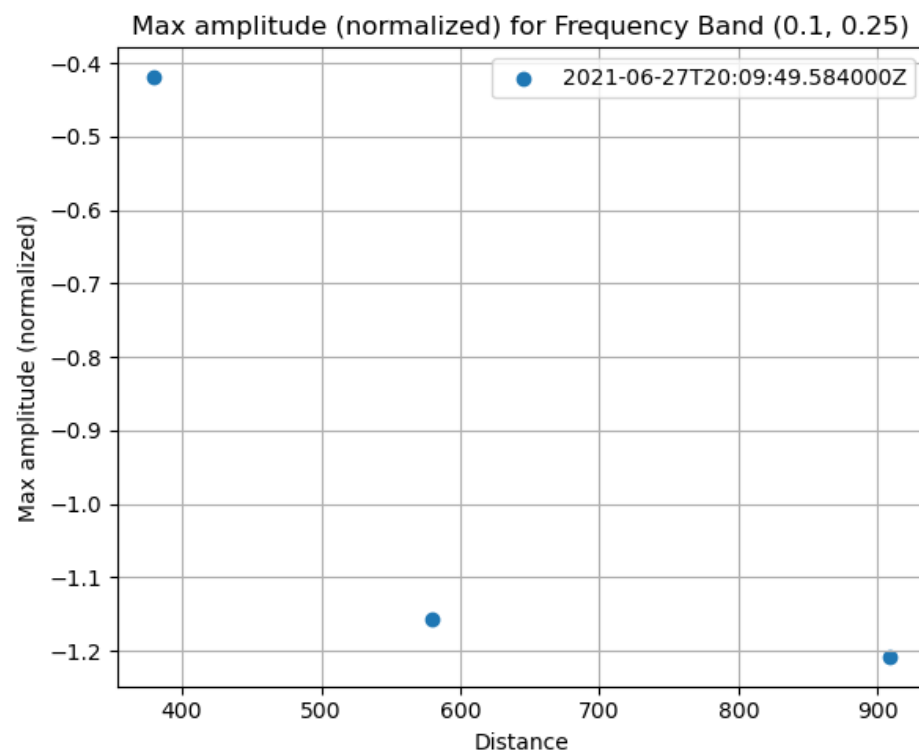
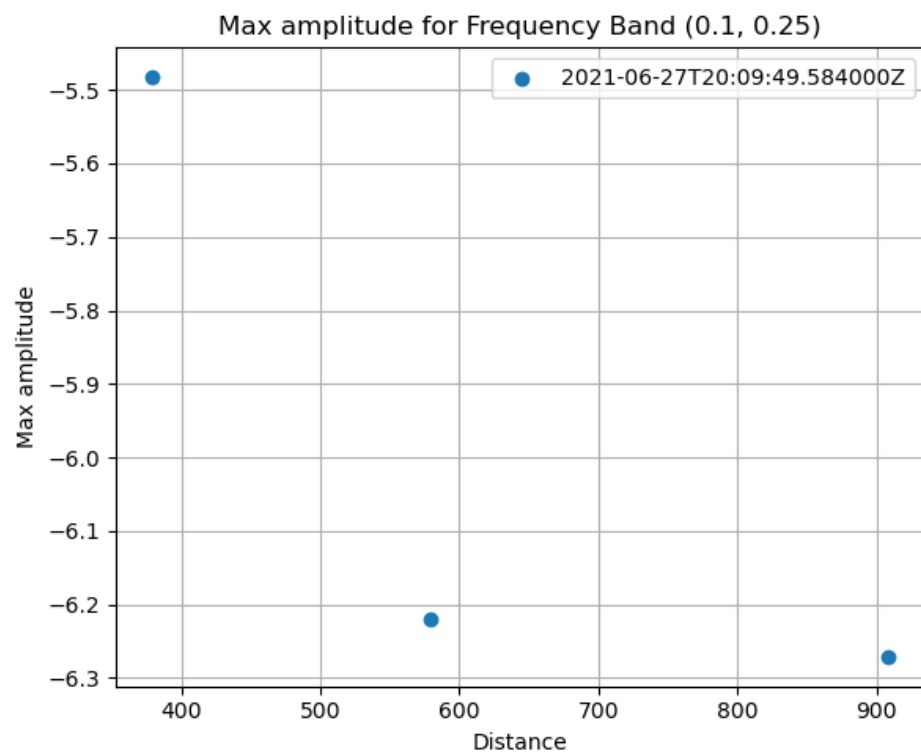
```

Call the function with your DataFrame

	station name	distance	event \
0	R4002	908.268837124511492	2021-06-27T20:09:49.584000Z
1	RCE1F	379.453807821896021	2021-06-27T20:09:49.584000Z
2	RD4D8	579.622998482174808	2021-06-27T20:09:49.584000Z

	location	magnitude	mag type	max amplitude \
0	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.000000534662376
1	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.000003295512426
2	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.000000602280946

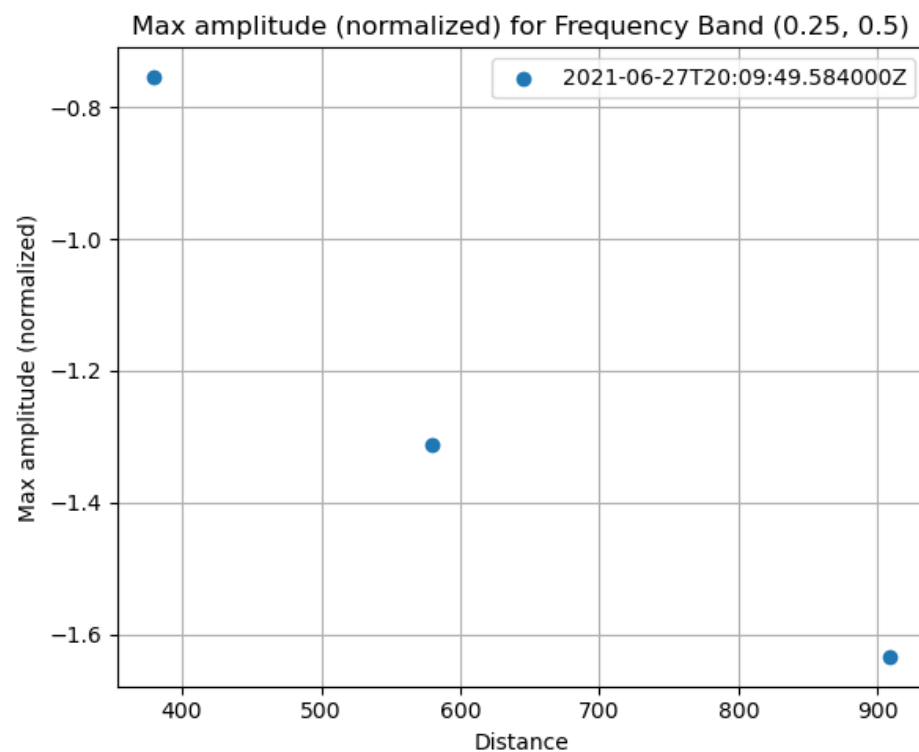
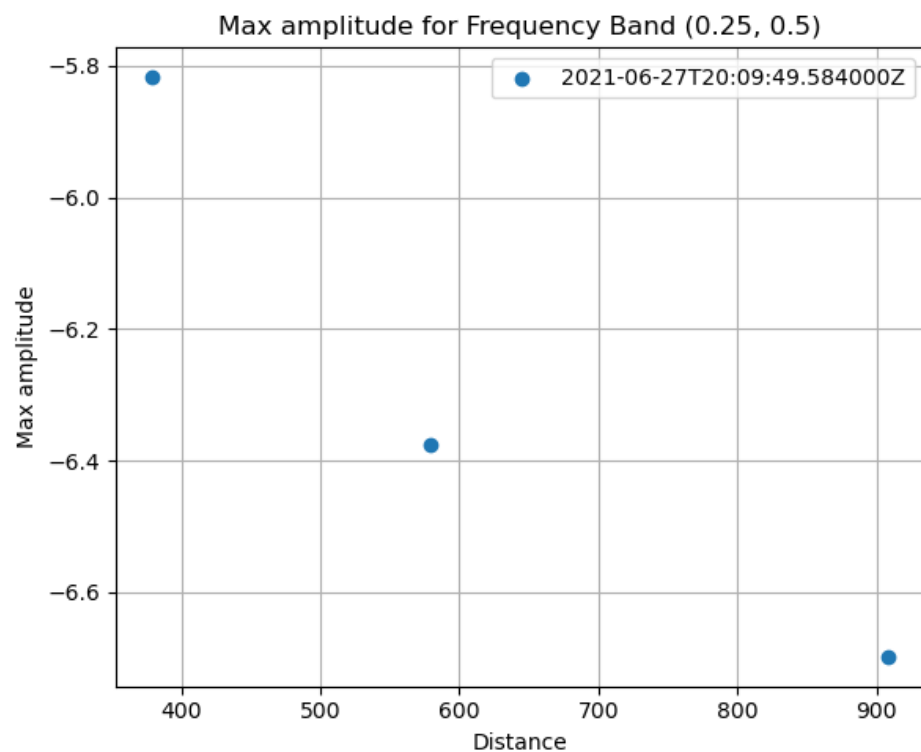
	frequency band	max amplitude (normalized)
0	(0.1, 0.25)	-1.208505657406519
1	(0.1, 0.25)	-0.418662327861488
2	(0.1, 0.25)	-1.156786157167219



	station name	distance	event \
3	R4002	908.268837124511492	2021-06-27T20:09:49.584000Z
4	RCE1F	379.453807821896021	2021-06-27T20:09:49.584000Z
5	RD4D8	579.622998482174808	2021-06-27T20:09:49.584000Z

	location	magnitude	mag type	max amplitude \
3	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.000000200171017
4	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.000001524279681
5	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.000000421051318

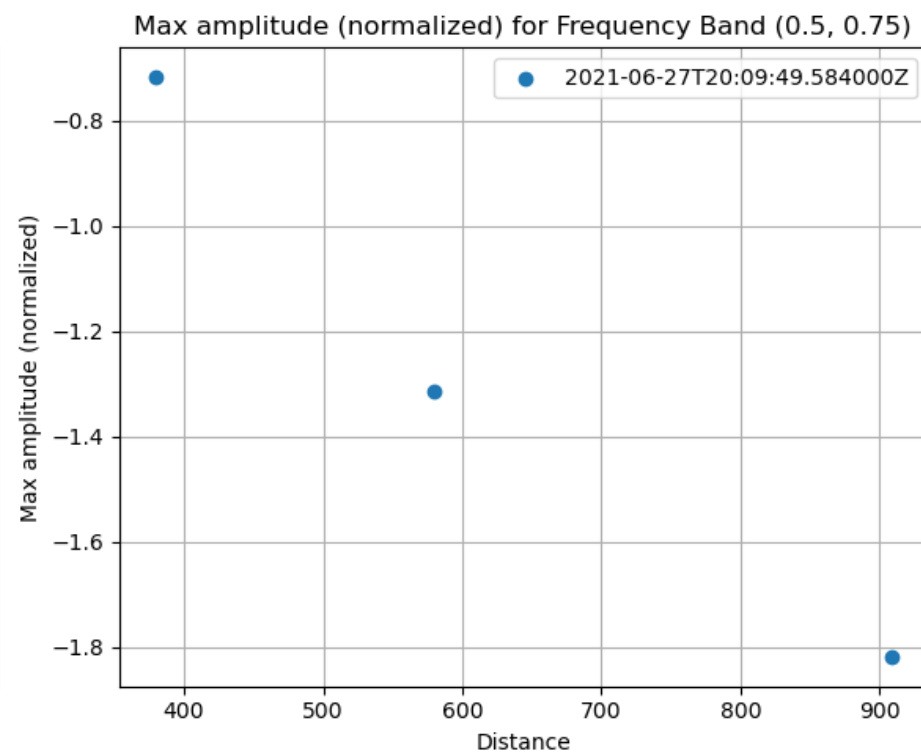
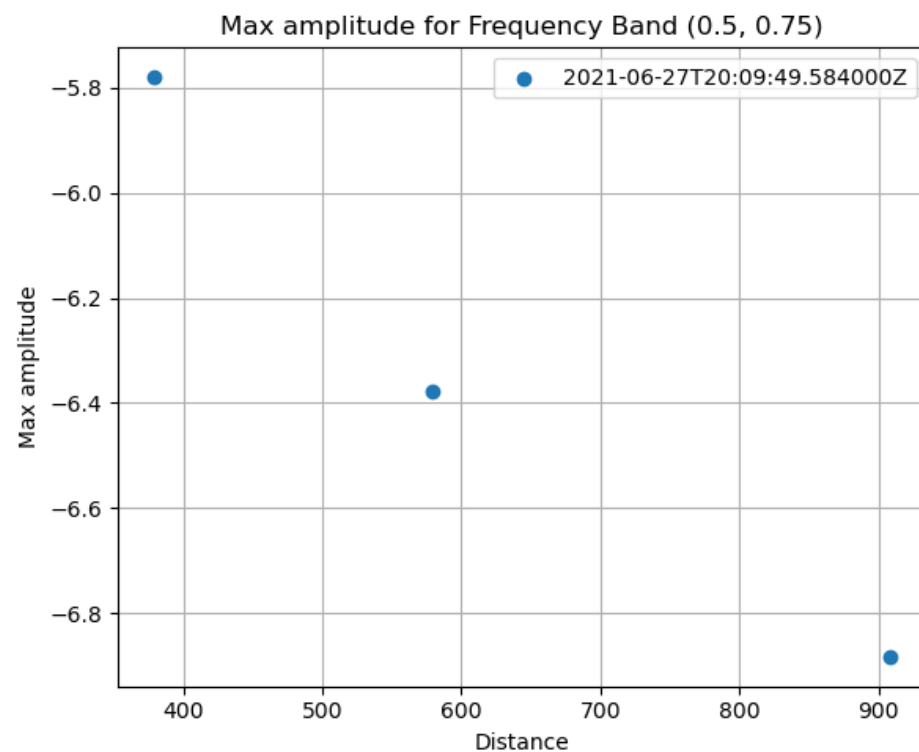
	frequency band	max amplitude (normalized)
3	(0.25, 0.5)	-1.635184086557635
4	(0.25, 0.5)	-0.753520620981494
5	(0.25, 0.5)	-1.312250250047461



	station name	distance	event \
6	R4002	908.268837124511492	2021-06-27T20:09:49.584000Z
7	RCE1F	379.453807821896021	2021-06-27T20:09:49.584000Z
8	RD4D8	579.622998482174808	2021-06-27T20:09:49.584000Z

	location	magnitude	mag type	max amplitude \
6	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.000000130871197
7	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.000001660546727
8	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.000000417851844

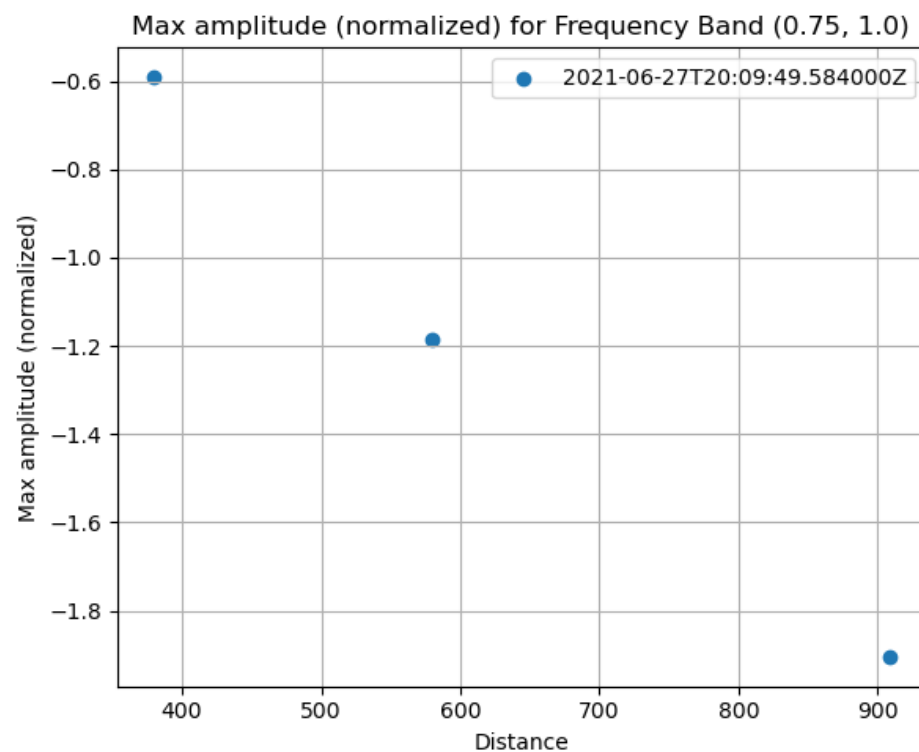
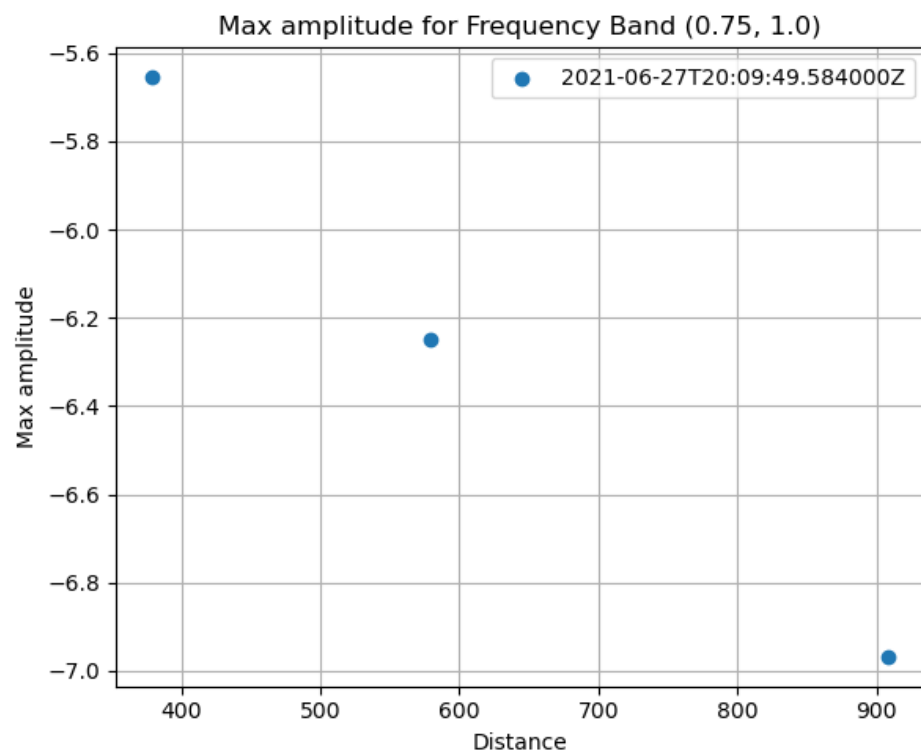
	frequency band	max amplitude (normalized)
6	(0.5, 0.75)	-1.819741205914694
7	(0.5, 0.75)	-0.716334180407487
8	(0.5, 0.75)	-1.315562957937418



	station name	distance	event \
9	R4002	908.268837124511492	2021-06-27T20:09:49.584000Z
10	RCE1F	379.453807821896021	2021-06-27T20:09:49.584000Z
11	RD4D8	579.622998482174808	2021-06-27T20:09:49.584000Z

	location	magnitude	mag type	max amplitude \
9	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.000000107326215
10	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.0000002220131376
11	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.000000563906183

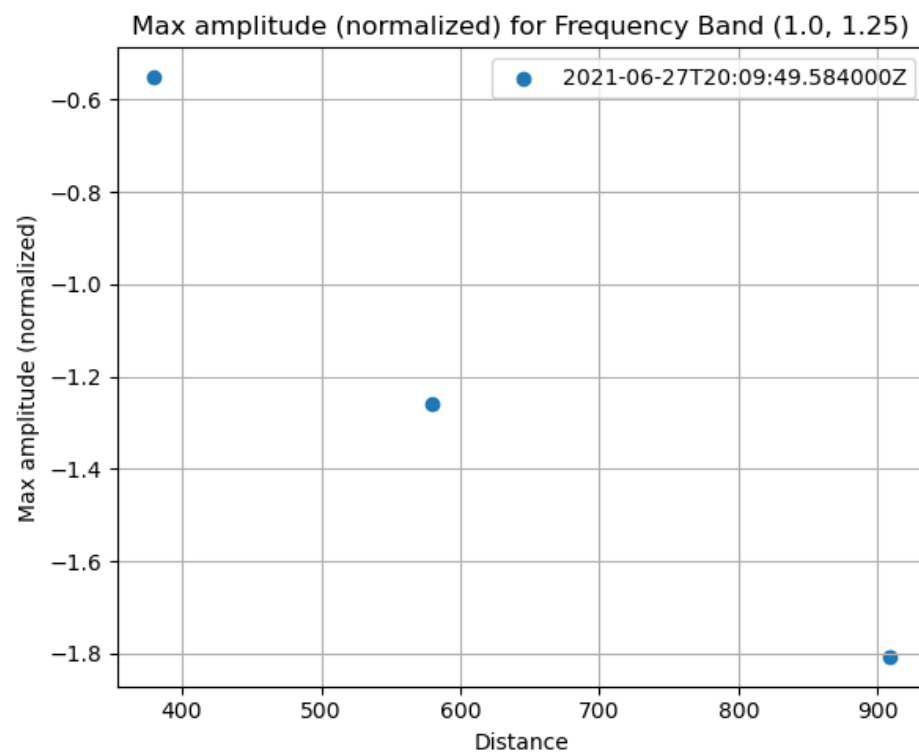
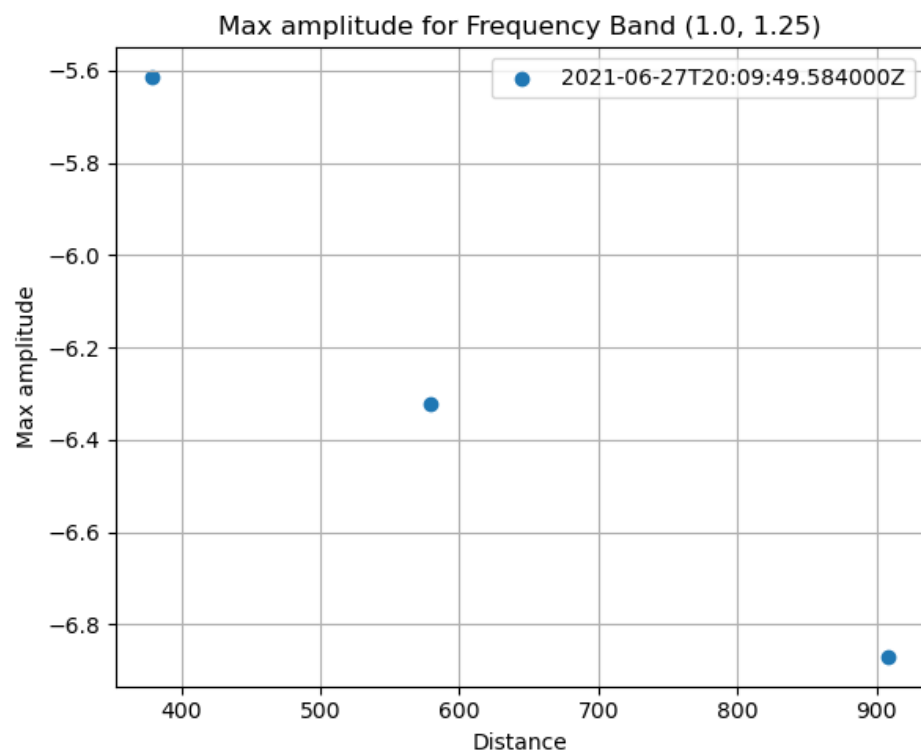
	frequency band	max amplitude (normalized)
9	(0.75, 1.0)	-1.905879469205696
10	(0.75, 1.0)	-0.590206606855078
11	(0.75, 1.0)	-1.185378424532039



	station name	distance	event \
12	R4002	908.268837124511492	2021-06-27T20:09:49.584000Z
13	RCE1F	379.453807821896021	2021-06-27T20:09:49.584000Z
14	RD4D8	579.622998482174808	2021-06-27T20:09:49.584000Z

	location	magnitude	mag type	max amplitude \
12	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.000000134548665
13	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.0000002434963048
14	[16.5489, -76.277, 10.0]	4.200000000000000	ml	0.000000475242766

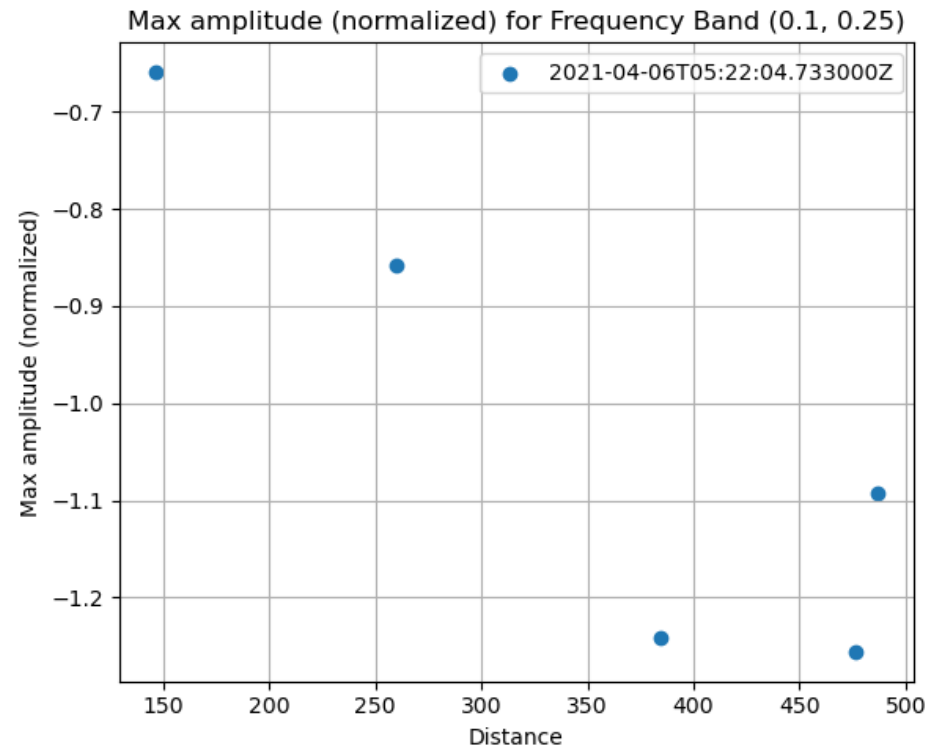
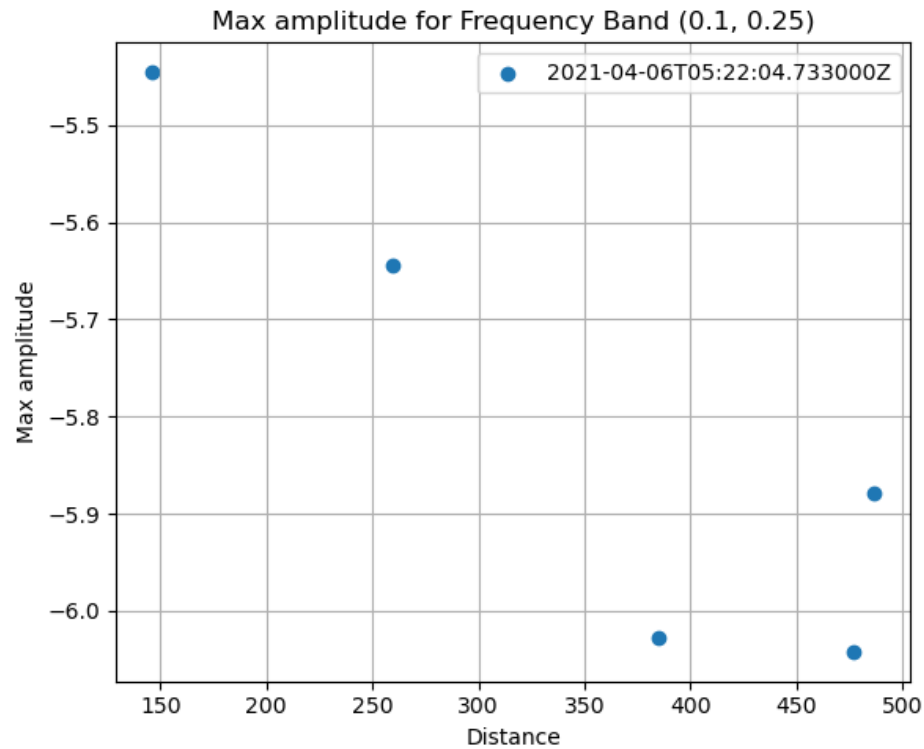
	frequency band	max amplitude (normalized)
12	(1.0, 1.25)	-1.807705889269210
13	(1.0, 1.25)	-0.550092906453809
14	(1.0, 1.25)	-1.25969766304156



	station name	distance	event \
15	R1D7C	476.632096339389363	2021-04-06T05:22:04.733000Z
16	R4EEE	384.481997940264648	2021-04-06T05:22:04.733000Z
17	RD4D8	259.645688629670076	2021-04-06T05:22:04.733000Z
18	RE001	486.752011853869647	2021-04-06T05:22:04.733000Z
19	REF37	146.042882404791158	2021-04-06T05:22:04.733000Z

	location	magnitude	mag type	max amplitude \
15	[18.4369, -73.5434, 10.0]	4.2000000000000000	mwr	0.000000906703924
16	[18.4369, -73.5434, 10.0]	4.2000000000000000	mwr	0.000000939509818
17	[18.4369, -73.5434, 10.0]	4.2000000000000000	mwr	0.000002270525287
18	[18.4369, -73.5434, 10.0]	4.2000000000000000	mwr	0.000001323153614
19	[18.4369, -73.5434, 10.0]	4.2000000000000000	mwr	0.000003589071221

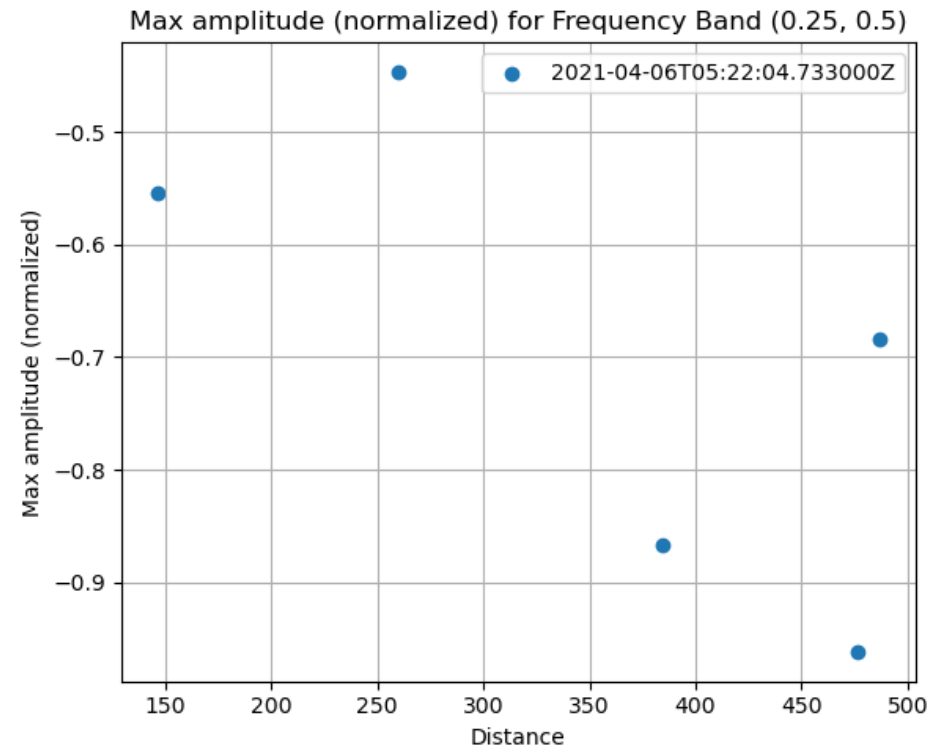
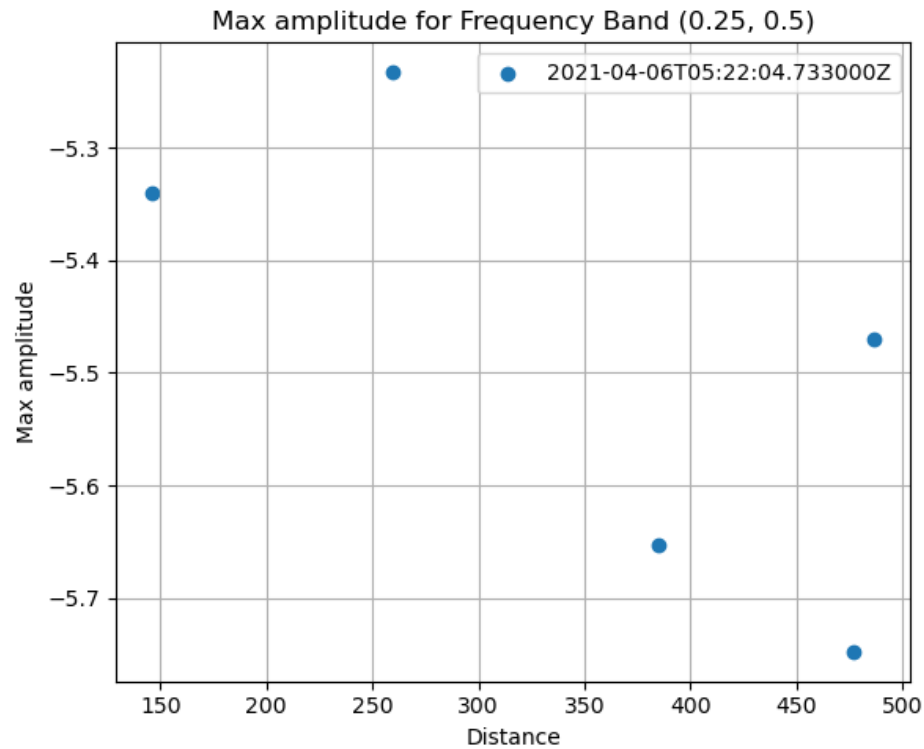
	frequency band	max amplitude (normalized)
15	(0.1, 0.25)	-1.256375262778993
16	(0.1, 0.25)	-1.240939435110281
17	(0.1, 0.25)	-0.857714415072329
18	(0.1, 0.25)	-1.092230490635030
19	(0.1, 0.25)	-0.658858681590019



	station name	distance	event \
20	R1D7C	476.632096339389363	2021-04-06T05:22:04.733000Z
21	R4EEE	384.481997940264648	2021-04-06T05:22:04.733000Z
22	RD4D8	259.645688629670076	2021-04-06T05:22:04.733000Z
23	RE001	486.752011853869647	2021-04-06T05:22:04.733000Z
24	REF37	146.042882404791158	2021-04-06T05:22:04.733000Z

	location	magnitude	mag type	max amplitude \
20	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000001785529430
21	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000002221905740
22	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000005852578307
23	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000003391732606
24	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000004562696104

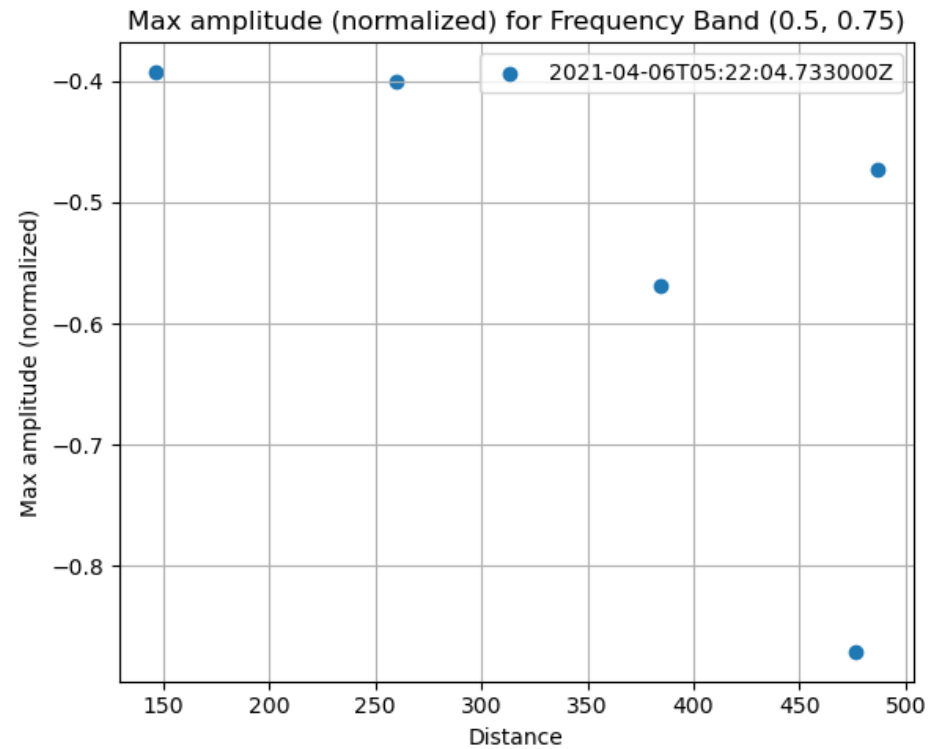
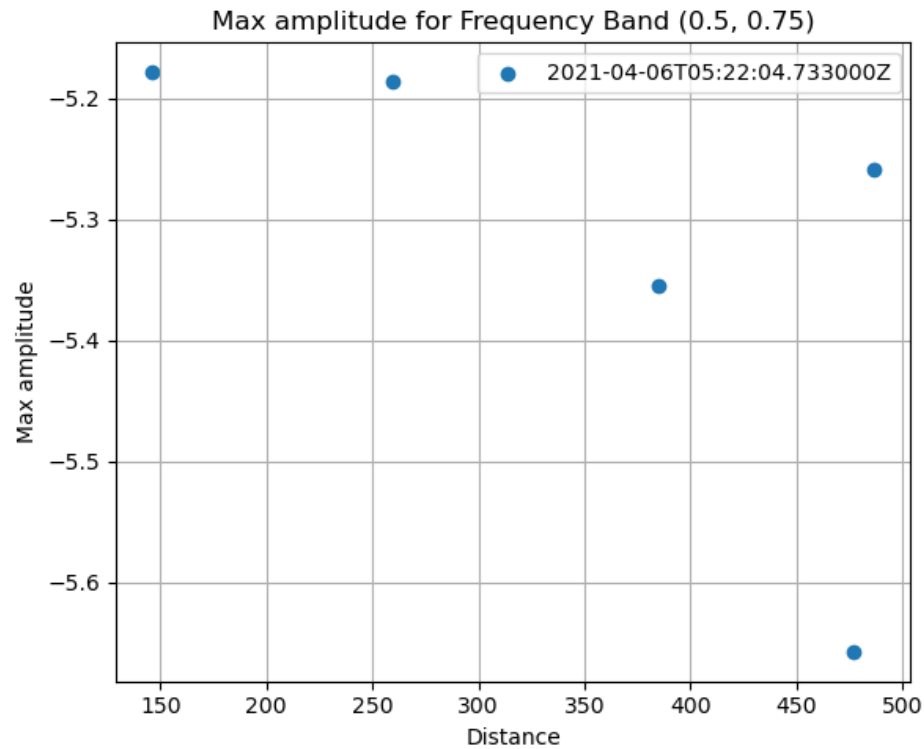
	frequency band	max amplitude (normalized)
20	(0.25, 0.5)	-0.962073745189373
21	(0.25, 0.5)	-0.867115127194153
22	(0.25, 0.5)	-0.446493524819859
23	(0.25, 0.5)	-0.683419151646299
24	(0.25, 0.5)	-0.554619214317267



	station name	distance	event \
25	R1D7C	476.632096339389363	2021-04-06T05:22:04.733000Z
26	R4EEE	384.481997940264648	2021-04-06T05:22:04.733000Z
27	RD4D8	259.645688629670076	2021-04-06T05:22:04.733000Z
28	RE001	486.752011853869647	2021-04-06T05:22:04.733000Z
29	REF37	146.042882404791158	2021-04-06T05:22:04.733000Z

	location	magnitude	mag type	max amplitude \
25	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000002199600881
26	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000004410413798
27	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000006507794549
28	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000005516484180
29	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000006634492967

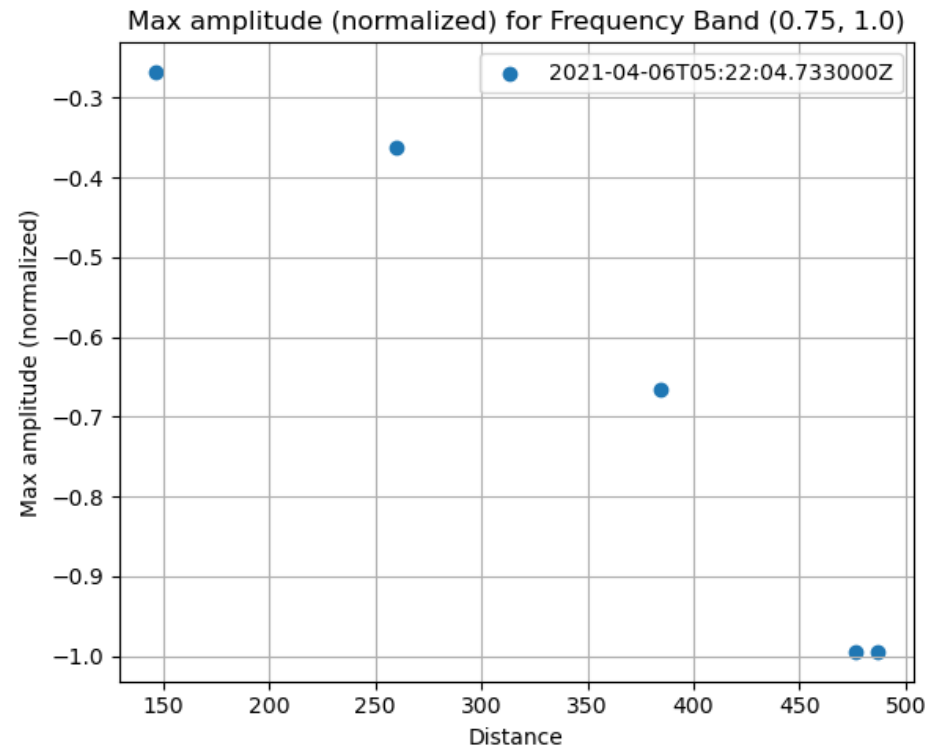
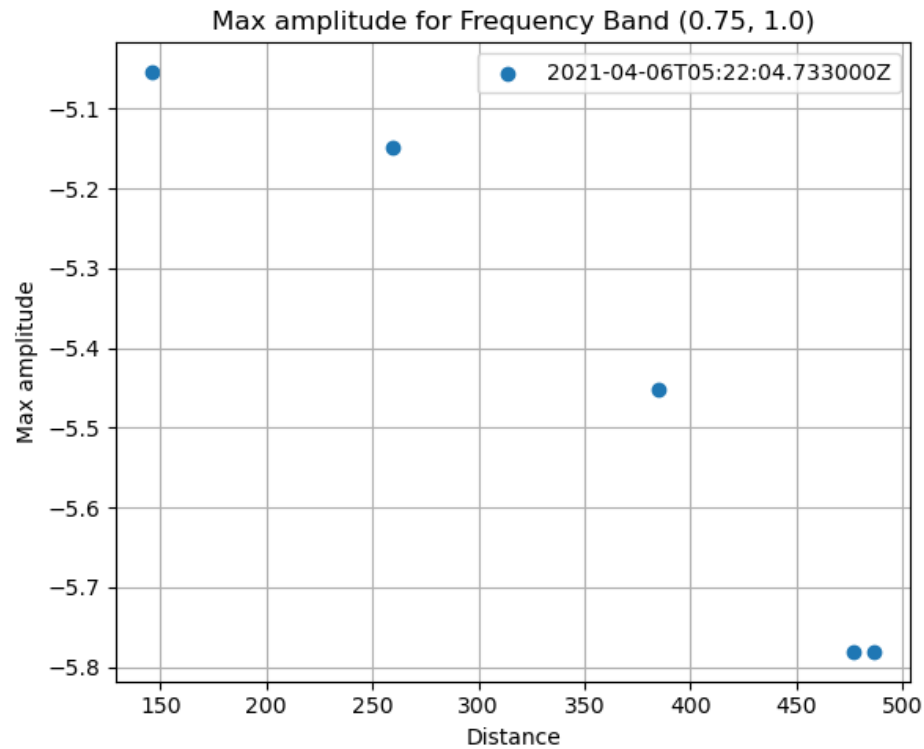
	frequency band	max amplitude (normalized)
25	(0.5, 0.75)	-0.871496873095057
26	(0.5, 0.75)	-0.569361419919529
27	(0.5, 0.75)	-0.400406924295915
28	(0.5, 0.75)	-0.472178381013867
29	(0.5, 0.75)	-0.392033020012671



	station name	distance	event \
30	R1D7C 476.632096339389363	2021-04-06T05:22:04.733000Z	
31	R4EEE 384.481997940264648	2021-04-06T05:22:04.733000Z	
32	RD4D8 259.645688629670076	2021-04-06T05:22:04.733000Z	
33	RE001 486.752011853869647	2021-04-06T05:22:04.733000Z	
34	REF37 146.042882404791158	2021-04-06T05:22:04.733000Z	

	location	magnitude mag type	max amplitude \
30	[18.4369, -73.5434, 10.0]	4.200000000000000 mwr	0.000001659023845
31	[18.4369, -73.5434, 10.0]	4.200000000000000 mwr	0.000003535802947
32	[18.4369, -73.5434, 10.0]	4.200000000000000 mwr	0.000007090457288
33	[18.4369, -73.5434, 10.0]	4.200000000000000 mwr	0.000001654232240
34	[18.4369, -73.5434, 10.0]	4.200000000000000 mwr	0.000008842147467

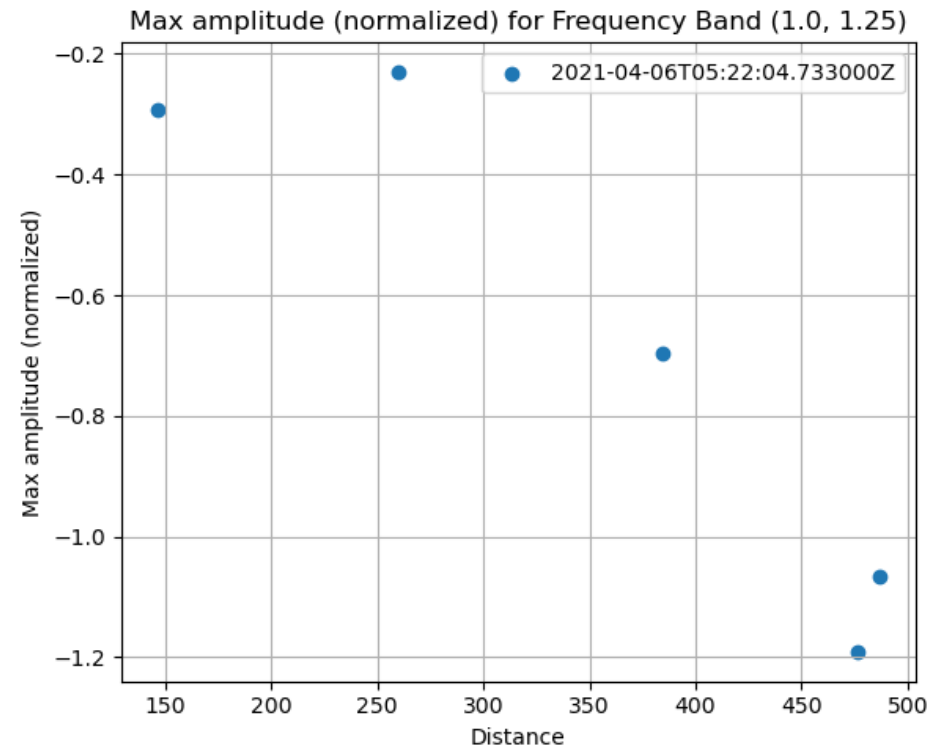
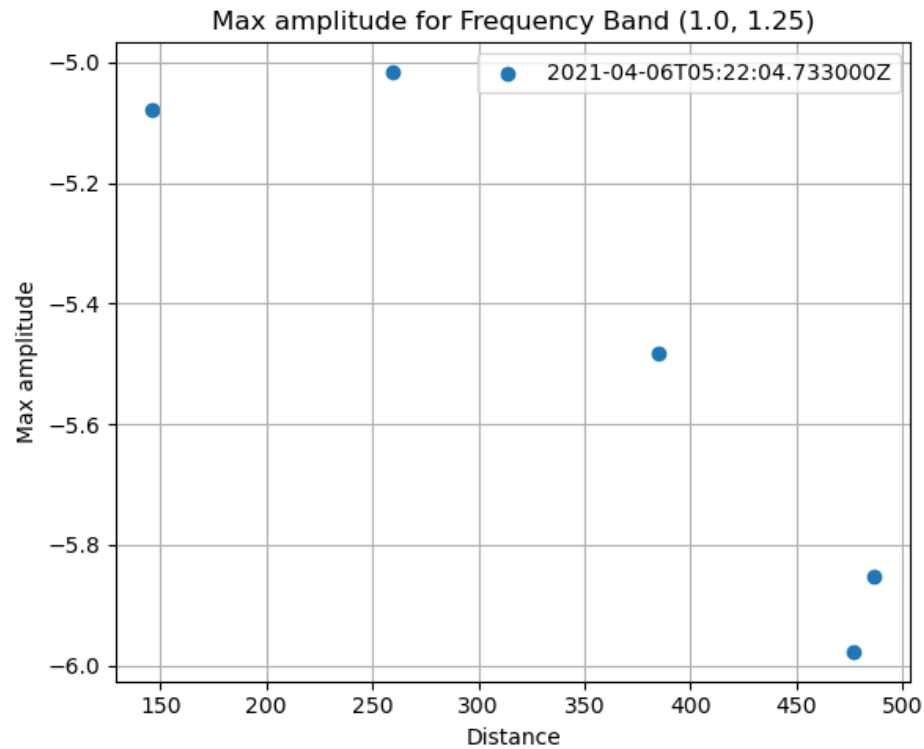
	frequency band	max amplitude (normalized)
30	(0.75, 1.0)	-0.993988129824453
31	(0.75, 1.0)	-0.665352704682832
32	(0.75, 1.0)	-0.363166512856922
33	(0.75, 1.0)	-0.995244277469081
34	(0.75, 1.0)	-0.267283004402042



	station name	distance	event \
35	R1D7C	476.632096339389363	2021-04-06T05:22:04.733000Z
36	R4EEE	384.481997940264648	2021-04-06T05:22:04.733000Z
37	RD4D8	259.645688629670076	2021-04-06T05:22:04.733000Z
38	RE001	486.752011853869647	2021-04-06T05:22:04.733000Z
39	REF37	146.042882404791158	2021-04-06T05:22:04.733000Z

	location	magnitude	mag type	max amplitude \
35	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000001052163090
36	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000003290093259
37	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000009643819974
38	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000001404614867
39	[18.4369, -73.5434, 10.0]	4.200000000000000	mwr	0.000008327380523

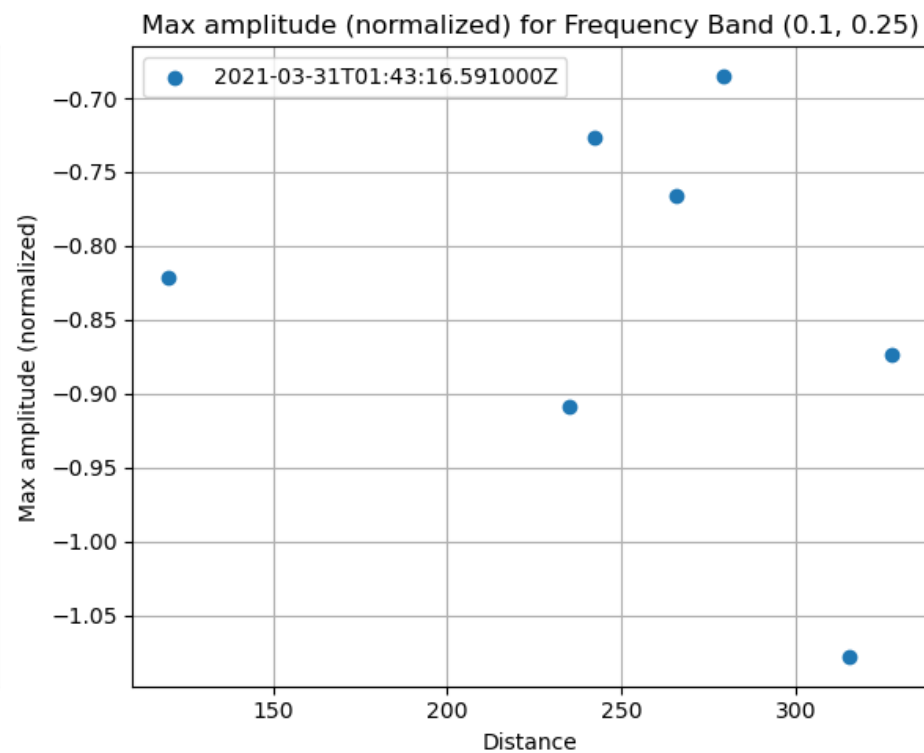
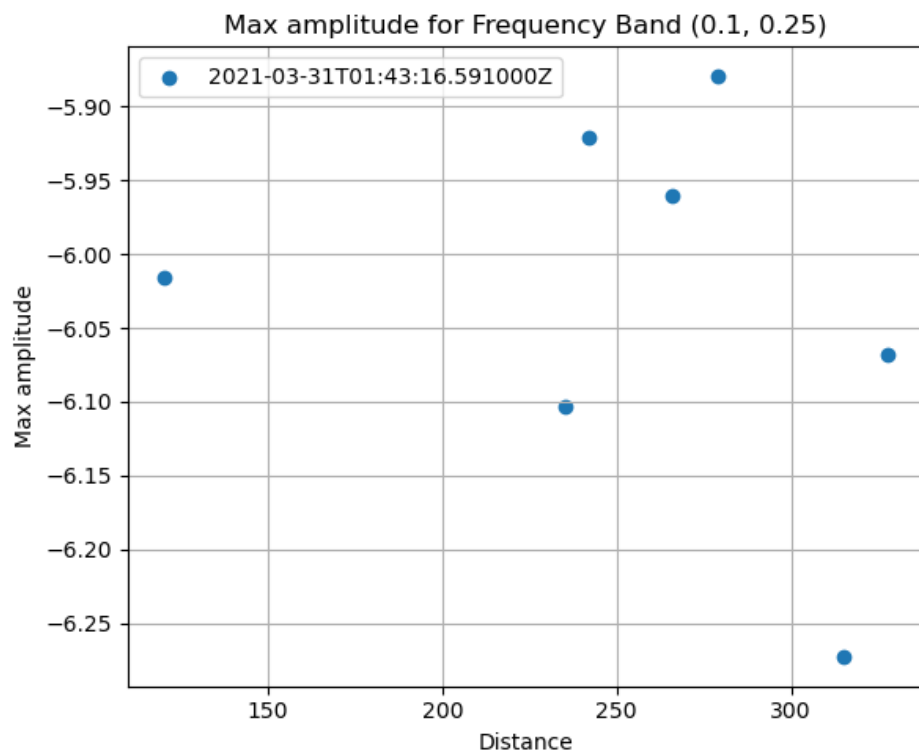
	frequency band	max amplitude (normalized)
35	(1.0, 1.25)	-1.191757695394283
36	(1.0, 1.25)	-0.696632549774325
37	(1.0, 1.25)	-0.229591663492418
38	(1.0, 1.25)	-1.066283497360789
39	(1.0, 1.25)	-0.293332347705959



	station name	distance	event \
40	R2974	235.037978134149853	2021-03-31T01:43:16.591000Z
41	R2BF8	315.247296391148495	2021-03-31T01:43:16.591000Z
42	R4DB9	265.699656405245946	2021-03-31T01:43:16.591000Z
43	R4EEE	120.069760031071681	2021-03-31T01:43:16.591000Z
44	RD4D8	242.081840090930143	2021-03-31T01:43:16.591000Z
45	REFAF	279.036614782990512	2021-03-31T01:43:16.591000Z
46	S4051	327.518124379792880	2021-03-31T01:43:16.591000Z

	location	magnitude	mag type	max amplitude \
40	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000000788318496
41	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000000533478853
42	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000001095937045
43	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000000965206830
44	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000001198053496
45	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000001320566426
46	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000000855414317

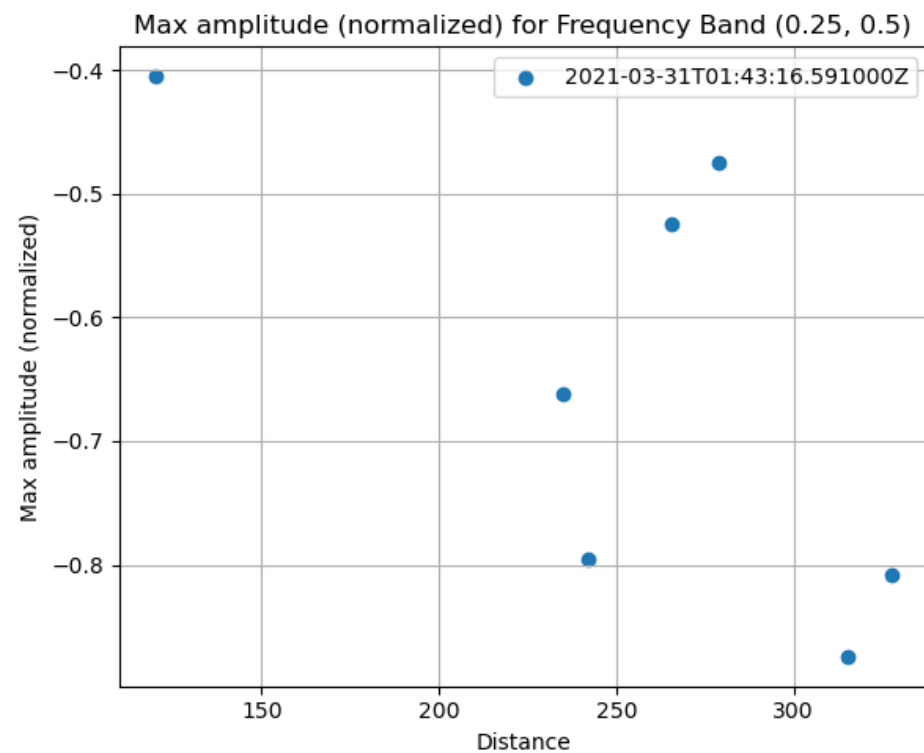
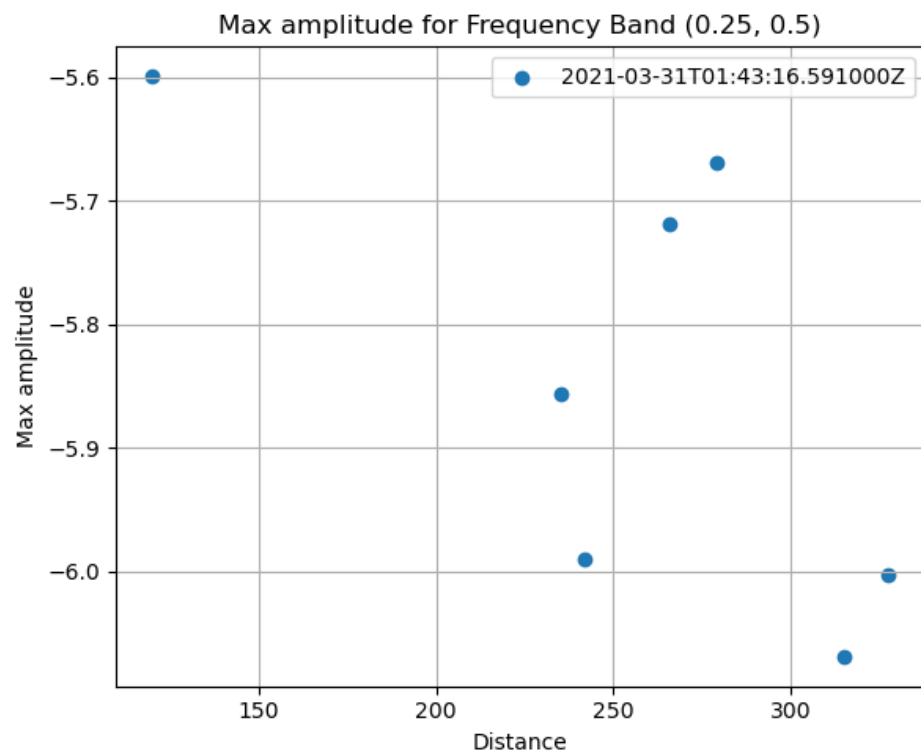
	frequency band	max amplitude (normalized)
40	(0.1, 0.25)	-0.908865668142898
41	(0.1, 0.25)	-1.078450175446216
42	(0.1, 0.25)	-0.765781777132145
43	(0.1, 0.25)	-0.820946997978913
44	(0.1, 0.25)	-0.727091173820882
45	(0.1, 0.25)	-0.684807132829660
46	(0.1, 0.25)	-0.873390869937456



	station name	distance	event \
47	R2974	235.037978134149853	2021-03-31T01:43:16.591000Z
48	R2BF8	315.247296391148495	2021-03-31T01:43:16.591000Z
49	R4DB9	265.699656405245946	2021-03-31T01:43:16.591000Z
50	R4EEE	120.069760031071681	2021-03-31T01:43:16.591000Z
51	RD4D8	242.081840090930143	2021-03-31T01:43:16.591000Z
52	REFAF	279.036614782990512	2021-03-31T01:43:16.591000Z
53	S4051	327.518124379792880	2021-03-31T01:43:16.591000Z

	location	magnitude	mag type	max amplitude \
47	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000001392415633
48	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000000852764357
49	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000001911512605
50	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000002518043260
51	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000001024371307
52	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000002141240504
53	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000000995334356

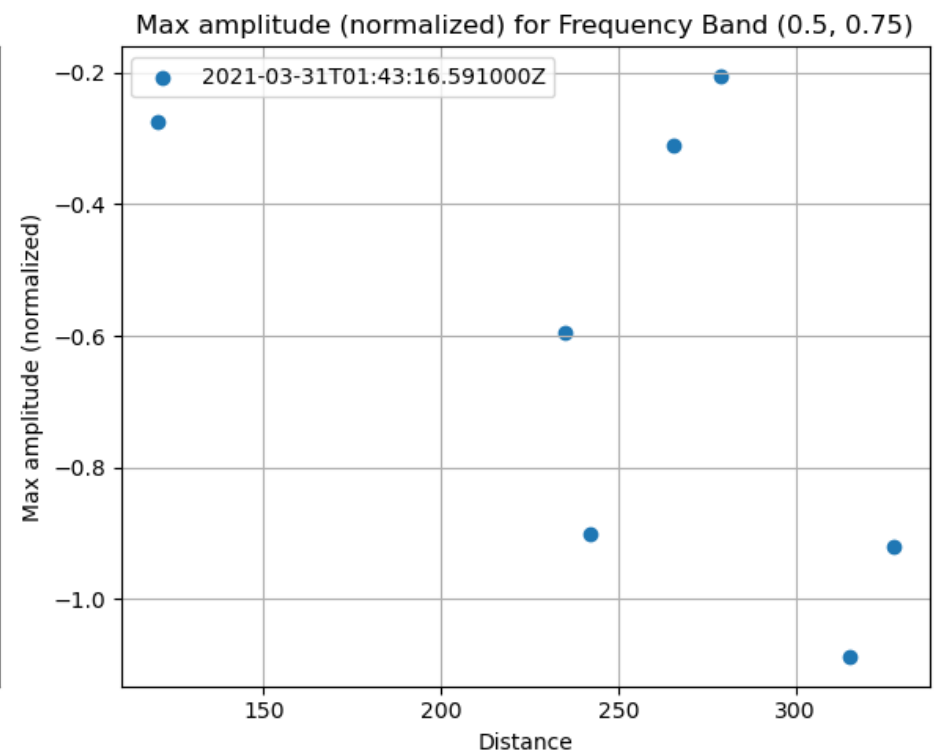
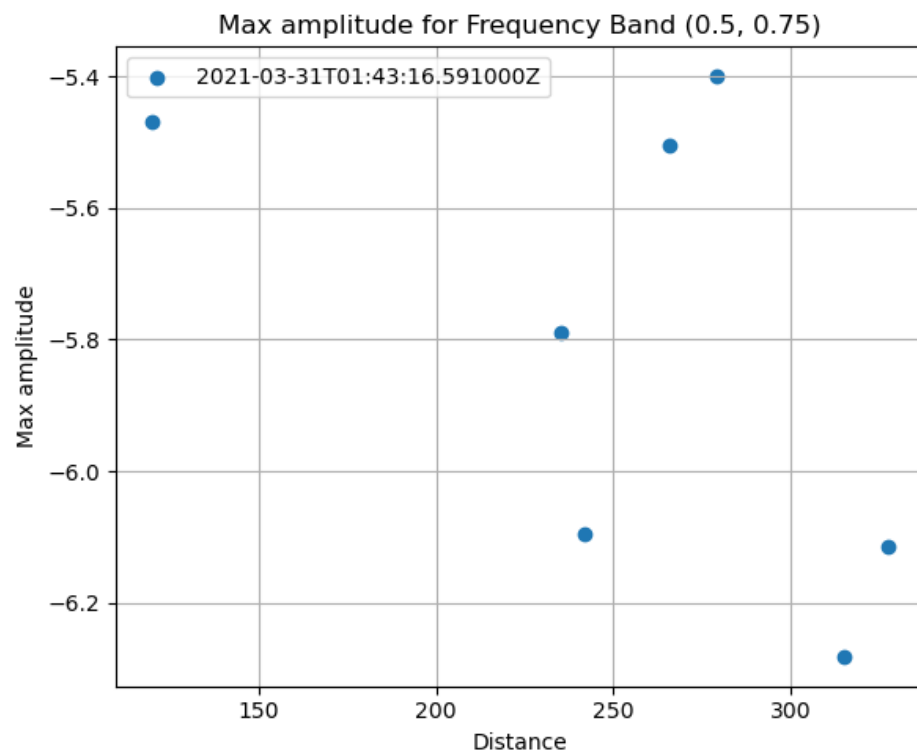
	frequency band	max amplitude (normalized)
47	(0.25, 0.5)	-0.661798494071087
48	(0.25, 0.5)	-0.874738344650795
49	(0.25, 0.5)	-0.524190218410742
50	(0.25, 0.5)	-0.404504197568887
51	(0.25, 0.5)	-0.795109979445874
52	(0.25, 0.5)	-0.474901934577419
53	(0.25, 0.5)	-0.807598389586809



	station name	distance	event \
54	R2974	235.037978134149853	2021-03-31T01:43:16.591000Z
55	R2BF8	315.247296391148495	2021-03-31T01:43:16.591000Z
56	R4DB9	265.699656405245946	2021-03-31T01:43:16.591000Z
57	R4EEE	120.069760031071681	2021-03-31T01:43:16.591000Z
58	RD4D8	242.081840090930143	2021-03-31T01:43:16.591000Z
59	REFAF	279.036614782990512	2021-03-31T01:43:16.591000Z
60	S4051	327.518124379792880	2021-03-31T01:43:16.591000Z

	location	magnitude	mag type	max amplitude \
54	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000001620183518
55	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000000521910677
56	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000003133770965
57	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000003395224558
58	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000000801595148
59	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000003987914700
60	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000000767280436

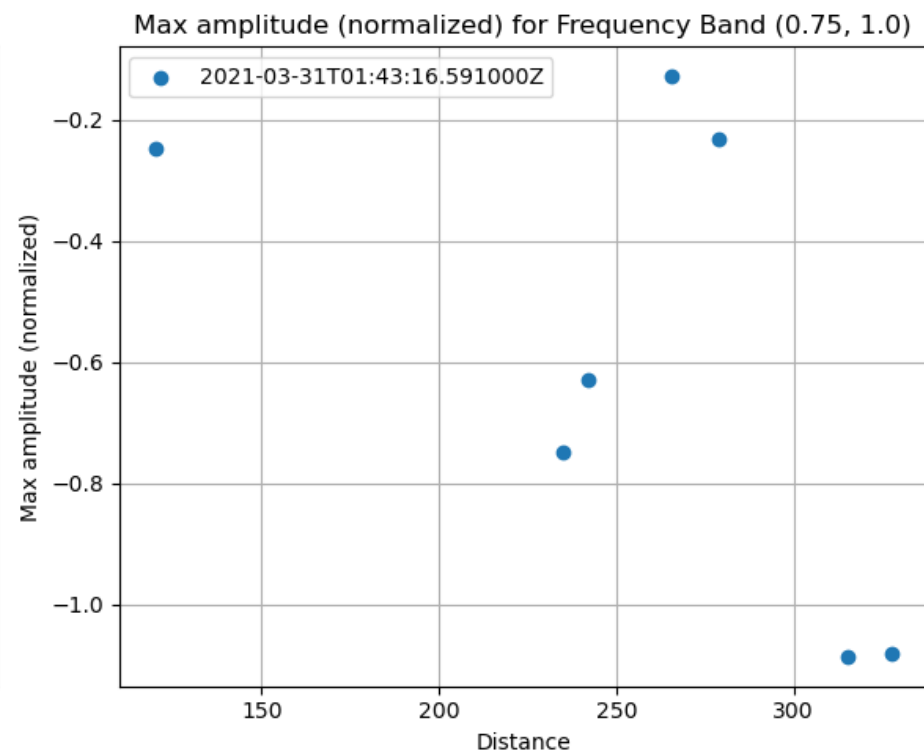
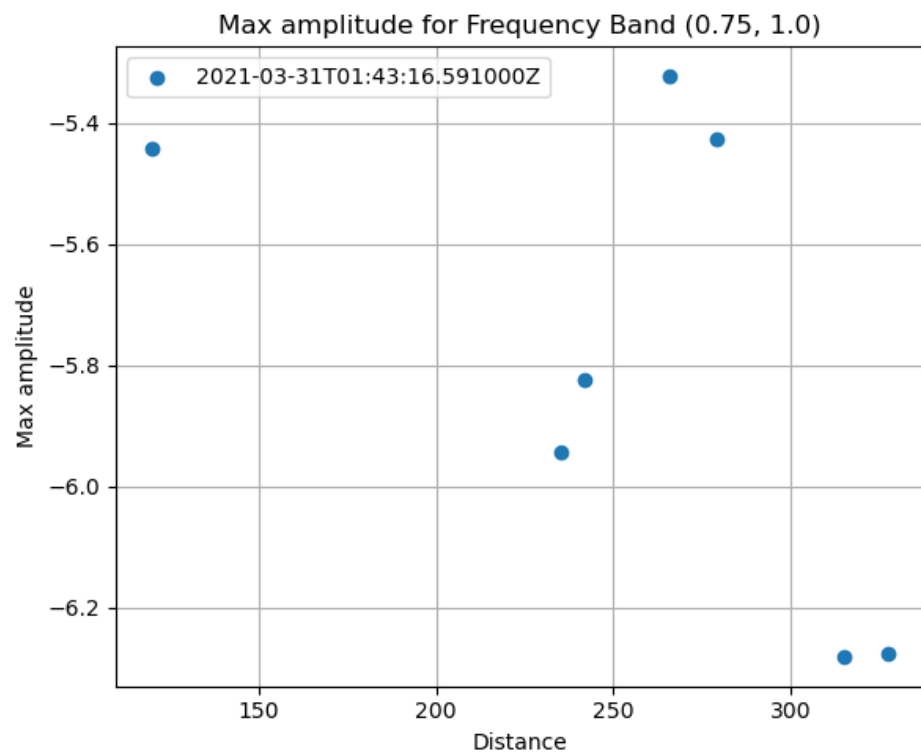
	frequency band	max amplitude (normalized)
54	(0.5, 0.75)	-0.596003174661361
55	(0.5, 0.75)	-1.087971203061681
56	(0.5, 0.75)	-0.309500132164034
57	(0.5, 0.75)	-0.274698881085206
58	(0.5, 0.75)	-0.901612304626328
59	(0.5, 0.75)	-0.204821524212343
60	(0.5, 0.75)	-0.920613259930231



	station name	distance	event \
61	R2974	235.037978134149853	2021-03-31T01:43:16.591000Z
62	R2BF8	315.247296391148495	2021-03-31T01:43:16.591000Z
63	R4DB9	265.699656405245946	2021-03-31T01:43:16.591000Z
64	R4EEE	120.069760031071681	2021-03-31T01:43:16.591000Z
65	RD4D8	242.081840090930143	2021-03-31T01:43:16.591000Z
66	REFAF	279.036614782990512	2021-03-31T01:43:16.591000Z
67	S4051	327.518124379792880	2021-03-31T01:43:16.591000Z

	location	magnitude	mag type	max amplitude \
61	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000001136716157
62	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000000523471974
63	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000004758511291
64	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000003614577447
65	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000001497422233
66	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000003741288604
67	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000000531997801

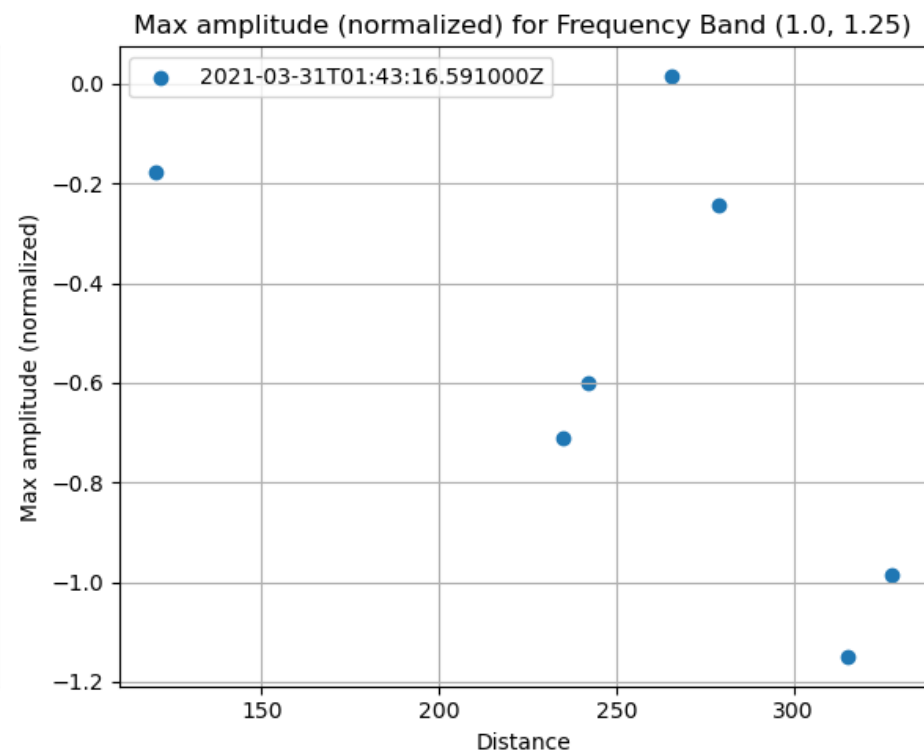
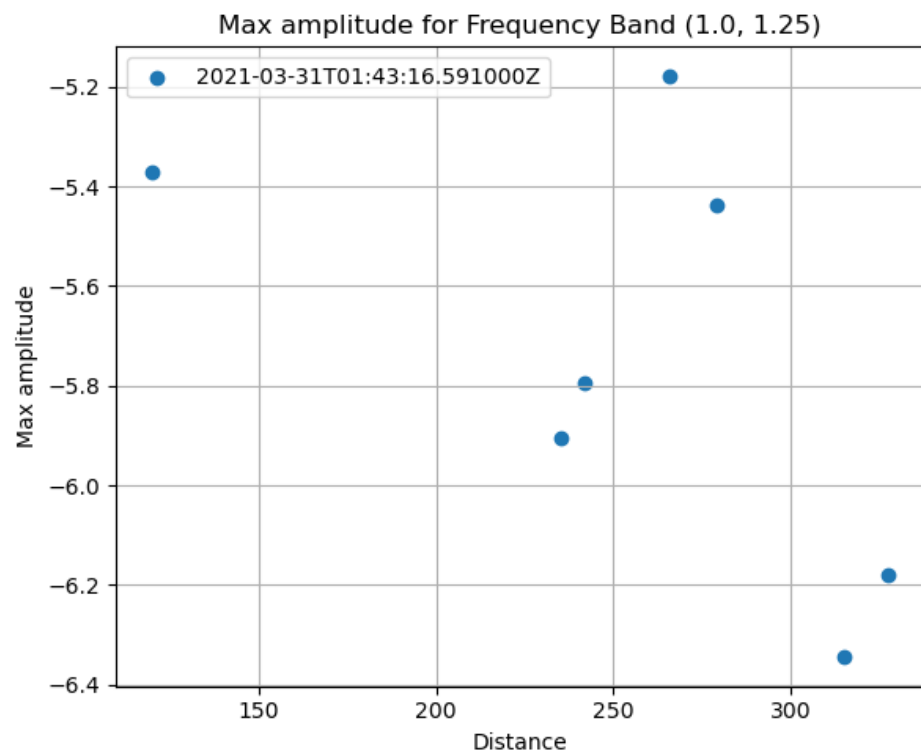
	frequency band	max amplitude (normalized)
61	(0.75, 1.0)	-0.749915351549629
62	(0.75, 1.0)	-1.086673949505082
63	(0.75, 1.0)	-0.128096280445026
64	(0.75, 1.0)	-0.247509850059735
65	(0.75, 1.0)	-0.630223107545167
66	(0.75, 1.0)	-0.232546173474945
67	(0.75, 1.0)	-1.079657547023514



	station name	distance	event \
68	R2974	235.037978134149853	2021-03-31T01:43:16.591000Z
69	R2BF8	315.247296391148495	2021-03-31T01:43:16.591000Z
70	R4DB9	265.699656405245946	2021-03-31T01:43:16.591000Z
71	R4EEE	120.069760031071681	2021-03-31T01:43:16.591000Z
72	RD4D8	242.081840090930143	2021-03-31T01:43:16.591000Z
73	REFAF	279.036614782990512	2021-03-31T01:43:16.591000Z
74	S4051	327.518124379792880	2021-03-31T01:43:16.591000Z

	location	magnitude	mag type	max amplitude \
68	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000001247073662
69	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000000451813650
70	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000006635004967
71	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000004241976391
72	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000001599715146
73	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000003646288772
74	[19.1729, -69.0456, 7.95]	4.1000000000000000	mb	0.000000660181132

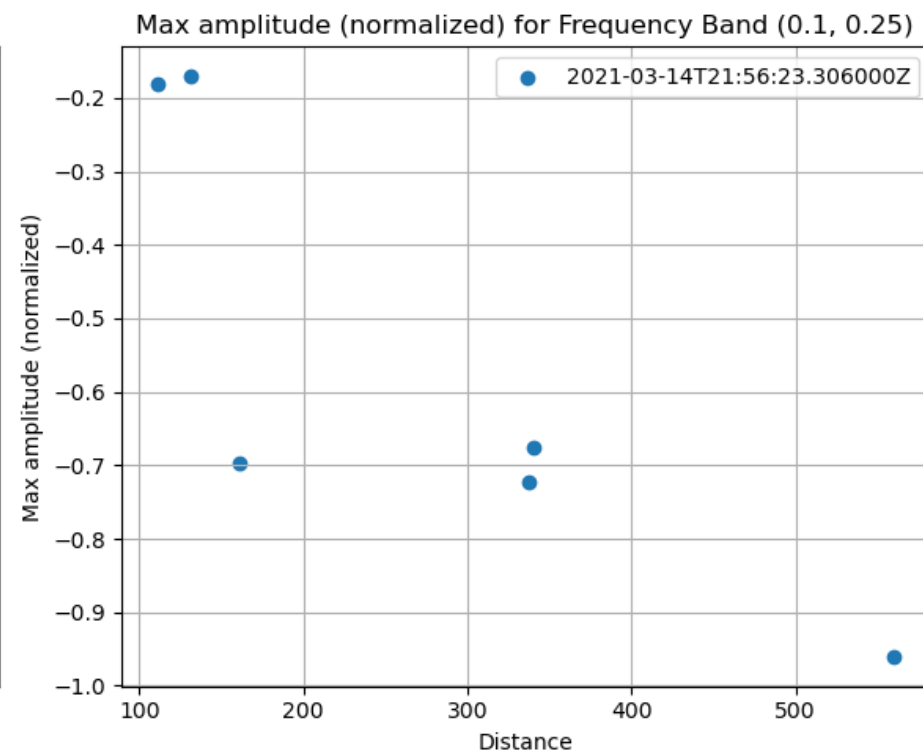
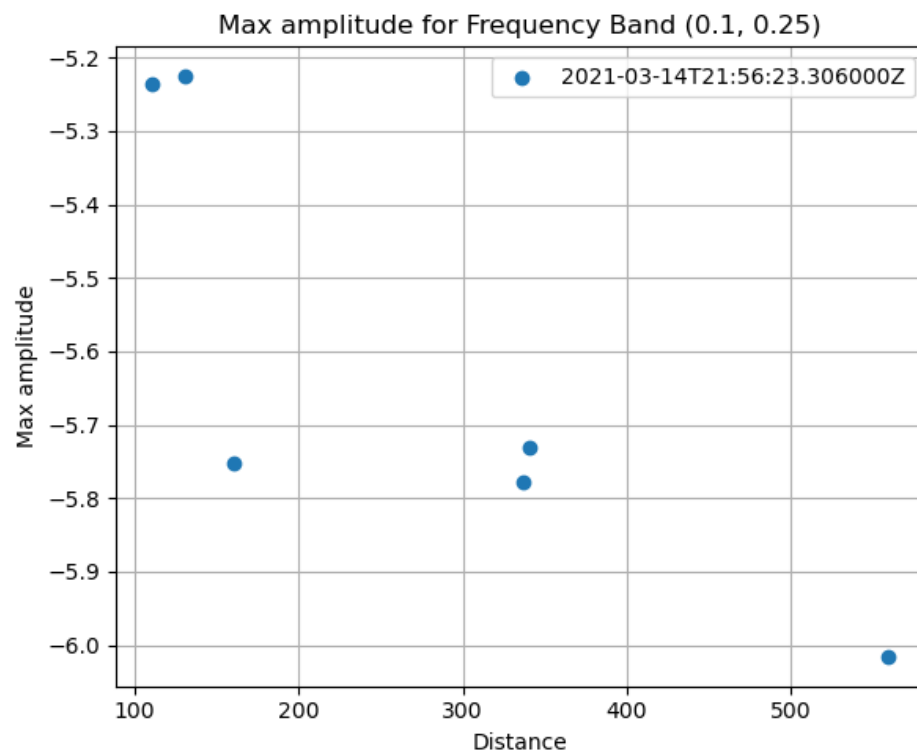
	frequency band	max amplitude (normalized)
68	(1.0, 1.25)	-0.709675277617505
69	(1.0, 1.25)	-1.150608037100061
70	(1.0, 1.25)	0.016273867717041
71	(1.0, 1.25)	-0.177999137495424
72	(1.0, 1.25)	-0.601524727774494
73	(1.0, 1.25)	-0.243716324393643
74	(1.0, 1.25)	-0.985904276413994



	station name	distance	event \
75	R1D7C	337.263946456217639	2021-03-14T21:56:23.306000Z
76	R4DB9	559.408477510914281	2021-03-14T21:56:23.306000Z
77	R50D4	160.492559947893398	2021-03-14T21:56:23.306000Z
78	RD4D8	110.975305172239487	2021-03-14T21:56:23.306000Z
79	RE001	340.475694429640157	2021-03-14T21:56:23.306000Z
80	REFAF	131.050399035502522	2021-03-14T21:56:23.306000Z

	location	magnitude	mag type	max amplitude \
75	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000001669197395
76	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000000963298009
77	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000001773449402
78	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000005807282857
79	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000001861898729
80	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000005959551799

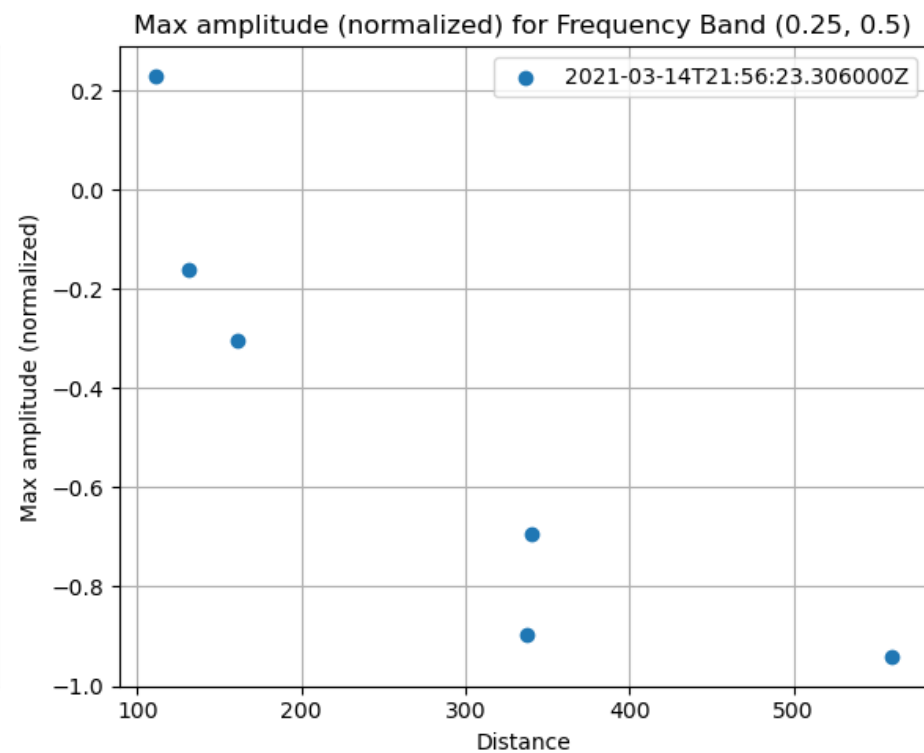
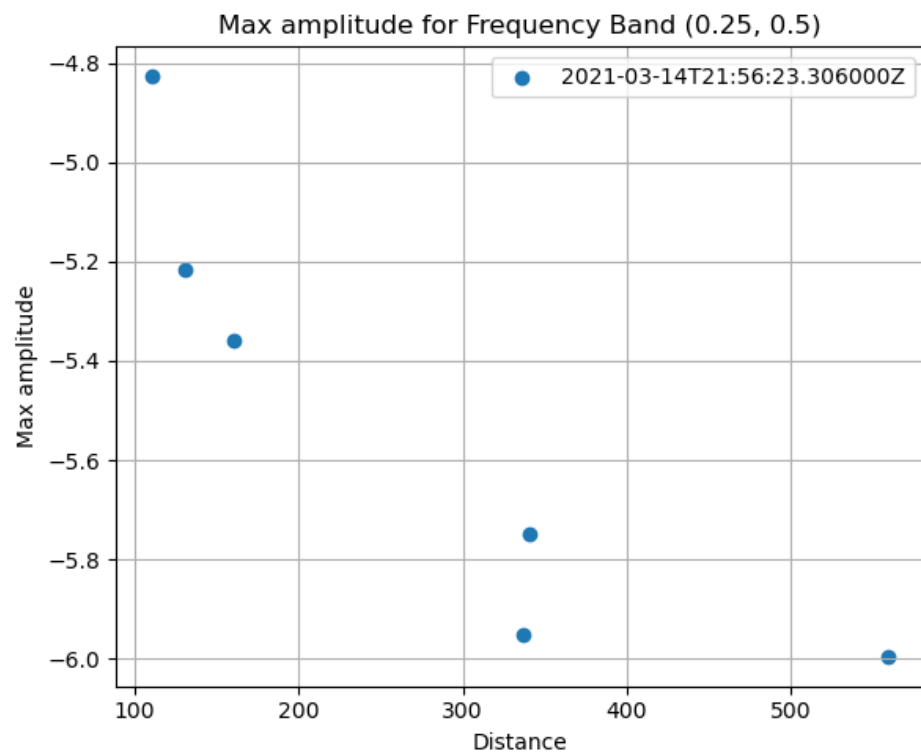
	frequency band	max amplitude (normalized)
75	(0.1, 0.25)	-0.722404650771329
76	(0.1, 0.25)	-0.961151686336100
77	(0.1, 0.25)	-0.696093546853199
78	(0.1, 0.25)	-0.180939369190916
79	(0.1, 0.25)	-0.674956293661533
80	(0.1, 0.25)	-0.169698750175831



	station name	distance	event \
81	R1D7C 337.263946456217639	2021-03-14T21:56:23.306000Z	
82	R4DB9 559.408477510914281	2021-03-14T21:56:23.306000Z	
83	R50D4 160.492559947893398	2021-03-14T21:56:23.306000Z	
84	RD4D8 110.975305172239487	2021-03-14T21:56:23.306000Z	
85	RE001 340.475694429640157	2021-03-14T21:56:23.306000Z	
86	REFAF 131.050399035502522	2021-03-14T21:56:23.306000Z	

	location	magnitude mag type	max amplitude \
81	[17.9685, -72.1205, 10.0]	4.3000000000000000 mb	0.000001119924665
82	[17.9685, -72.1205, 10.0]	4.3000000000000000 mb	0.000001006558836
83	[17.9685, -72.1205, 10.0]	4.3000000000000000 mb	0.000004364007169
84	[17.9685, -72.1205, 10.0]	4.3000000000000000 mb	0.000014940279906
85	[17.9685, -72.1205, 10.0]	4.3000000000000000 mb	0.000001788603801
86	[17.9685, -72.1205, 10.0]	4.3000000000000000 mb	0.000006093222050

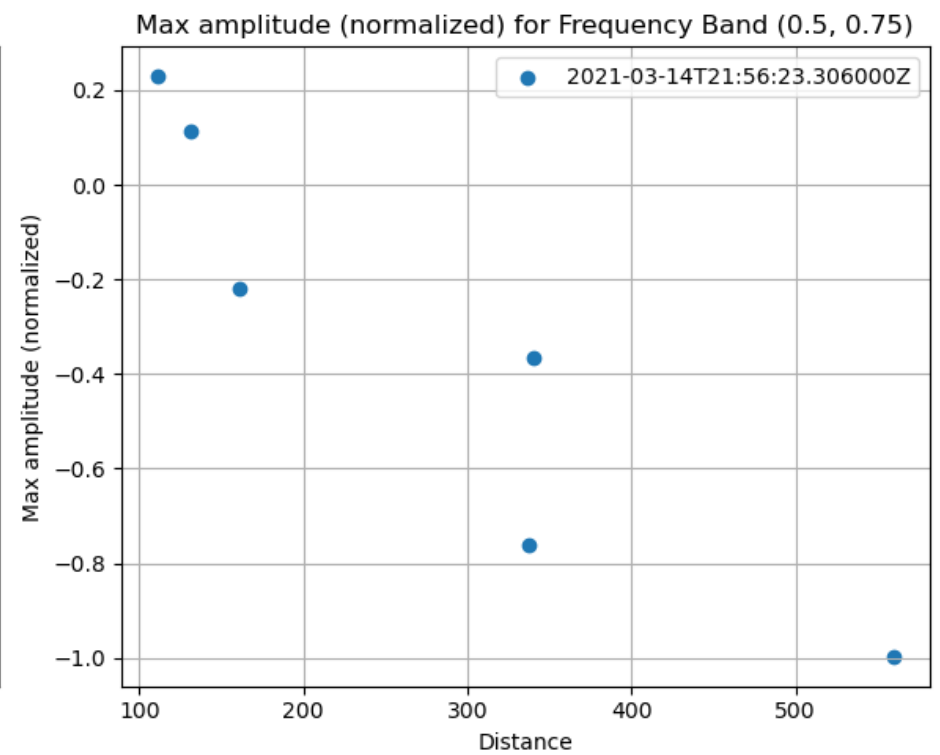
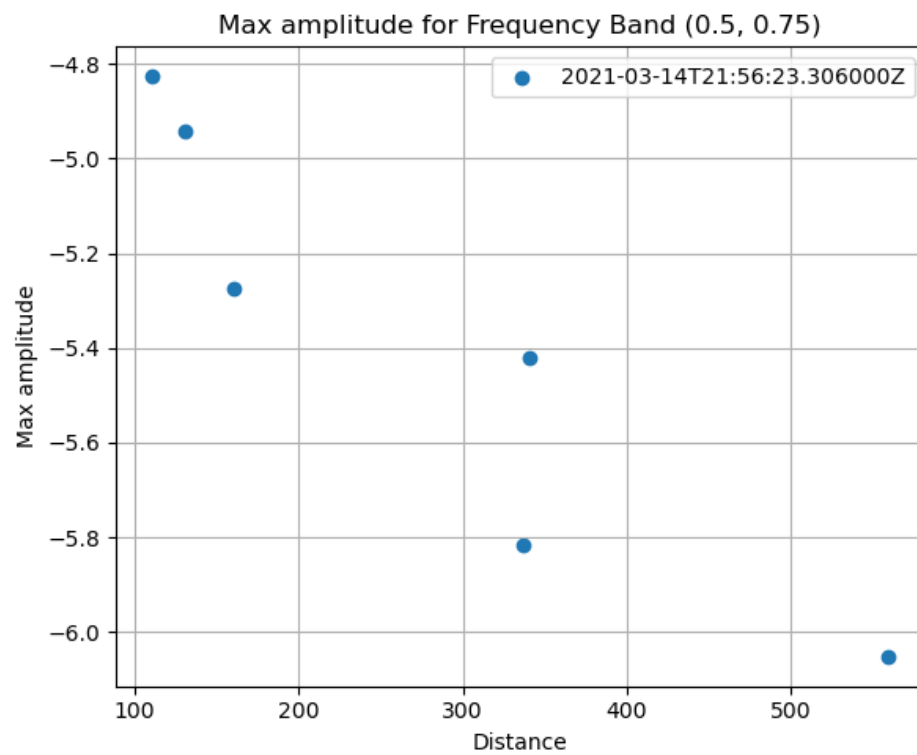
	frequency band	max amplitude (normalized)
81	(0.25, 0.5)	-0.895723539623441
82	(0.25, 0.5)	-0.942073183295516
83	(0.25, 0.5)	-0.305026893727552
84	(0.25, 0.5)	0.229446385000939
85	(0.25, 0.5)	-0.692398199610916
86	(0.25, 0.5)	-0.160065344030573



	station name	distance	event \
87	R1D7C	337.263946456217639	2021-03-14T21:56:23.306000Z
88	R4DB9	559.408477510914281	2021-03-14T21:56:23.306000Z
89	R50D4	160.492559947893398	2021-03-14T21:56:23.306000Z
90	RD4D8	110.975305172239487	2021-03-14T21:56:23.306000Z
91	RE001	340.475694429640157	2021-03-14T21:56:23.306000Z
92	REFAF	131.050399035502522	2021-03-14T21:56:23.306000Z

	location	magnitude	mag type	max amplitude \
87	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000001531119788
88	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000000884068949
89	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000005298904946
90	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000014964618946
91	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000003799797242
92	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000011393290315

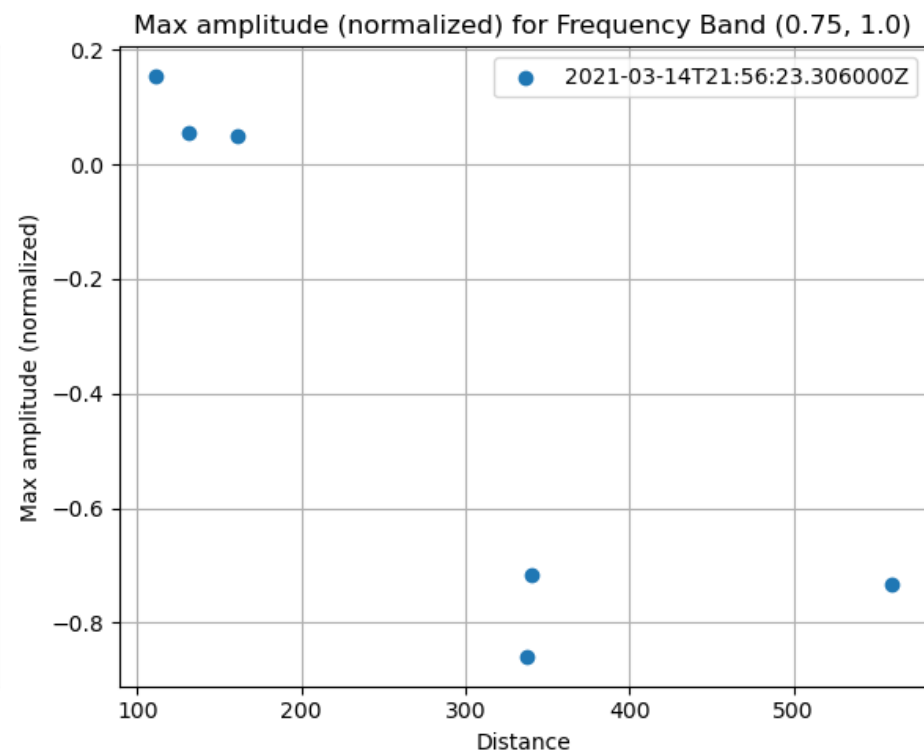
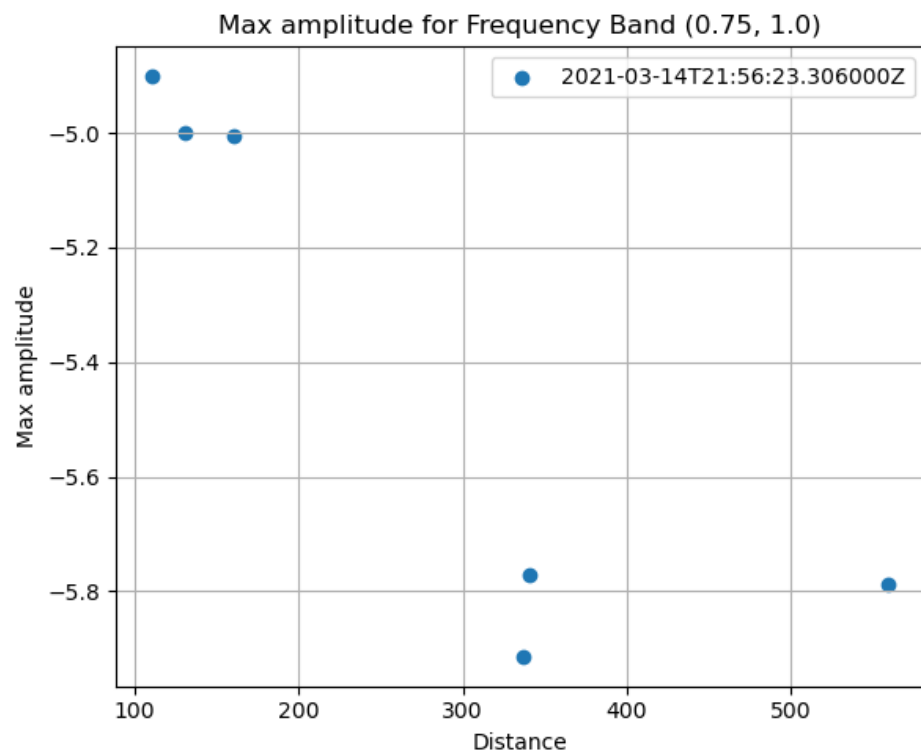
	frequency band	max amplitude (normalized)
87	(0.5, 0.75)	-0.759903179848257
88	(0.5, 0.75)	-0.998426211941701
89	(0.5, 0.75)	-0.220726220020448
90	(0.5, 0.75)	0.230153313535689
91	(0.5, 0.75)	-0.365151925892423
92	(0.5, 0.75)	0.111736814816319



	station name	distance	event \
93	R1D7C 337.263946456217639	2021-03-14T21:56:23.306000Z	
94	R4DB9 559.408477510914281	2021-03-14T21:56:23.306000Z	
95	R50D4 160.492559947893398	2021-03-14T21:56:23.306000Z	
96	RD4D8 110.975305172239487	2021-03-14T21:56:23.306000Z	
97	RE001 340.475694429640157	2021-03-14T21:56:23.306000Z	
98	REFAF 131.050399035502522	2021-03-14T21:56:23.306000Z	

	location	magnitude mag type	max amplitude \
93	[17.9685, -72.1205, 10.0]	4.3000000000000000 mb	0.000001215580227
94	[17.9685, -72.1205, 10.0]	4.3000000000000000 mb	0.000001623766635
95	[17.9685, -72.1205, 10.0]	4.3000000000000000 mb	0.000009862974707
96	[17.9685, -72.1205, 10.0]	4.3000000000000000 mb	0.000012581840992
97	[17.9685, -72.1205, 10.0]	4.3000000000000000 mb	0.000001690542978
98	[17.9685, -72.1205, 10.0]	4.3000000000000000 mb	0.000010021440311

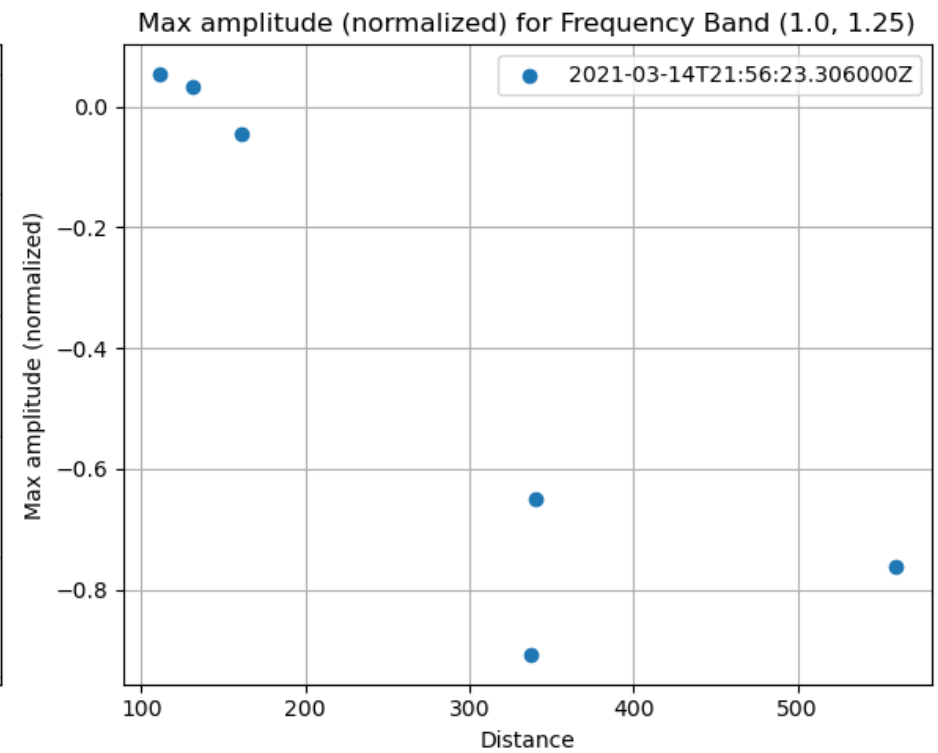
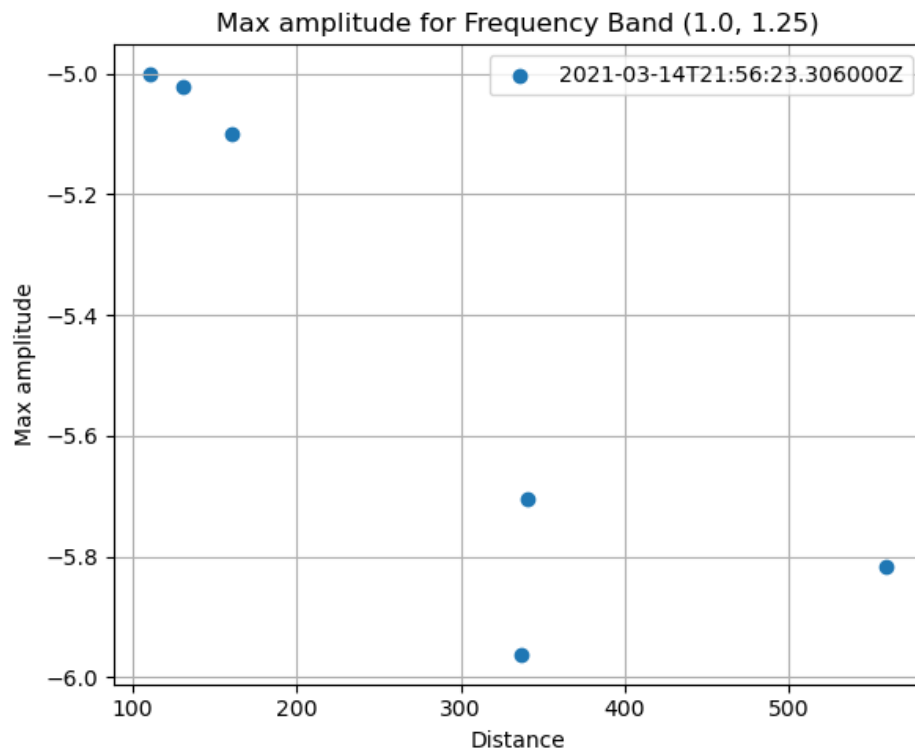
	frequency band	max amplitude (normalized)
93	(0.75, 1.0)	-0.860128721899734
94	(0.75, 1.0)	-0.734388735652331
95	(0.75, 1.0)	0.049095570356994
96	(0.75, 1.0)	0.154831843266854
97	(0.75, 1.0)	-0.716886132960418
98	(0.75, 1.0)	0.056017795051575



	station name	distance	event \
99	R1D7C	337.263946456217639	2021-03-14T21:56:23.306000Z
100	R4DB9	559.408477510914281	2021-03-14T21:56:23.306000Z
101	R50D4	160.492559947893398	2021-03-14T21:56:23.306000Z
102	RD4D8	110.975305172239487	2021-03-14T21:56:23.306000Z
103	RE001	340.475694429640157	2021-03-14T21:56:23.306000Z
104	REFAF	131.050399035502522	2021-03-14T21:56:23.306000Z

	location	magnitude	mag type	max amplitude \
99	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000001088117001
100	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000001523199027
101	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000007919780332
102	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000009985546899
103	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000001979554558
104	[17.9685, -72.1205, 10.0]	4.3000000000000000	mb	0.000009504715834

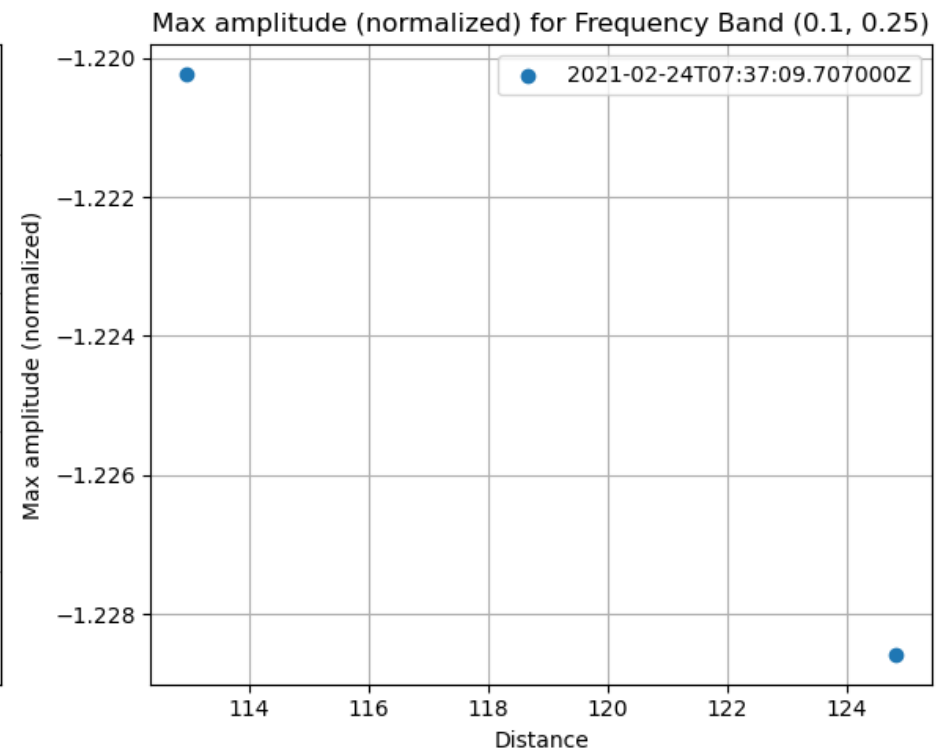
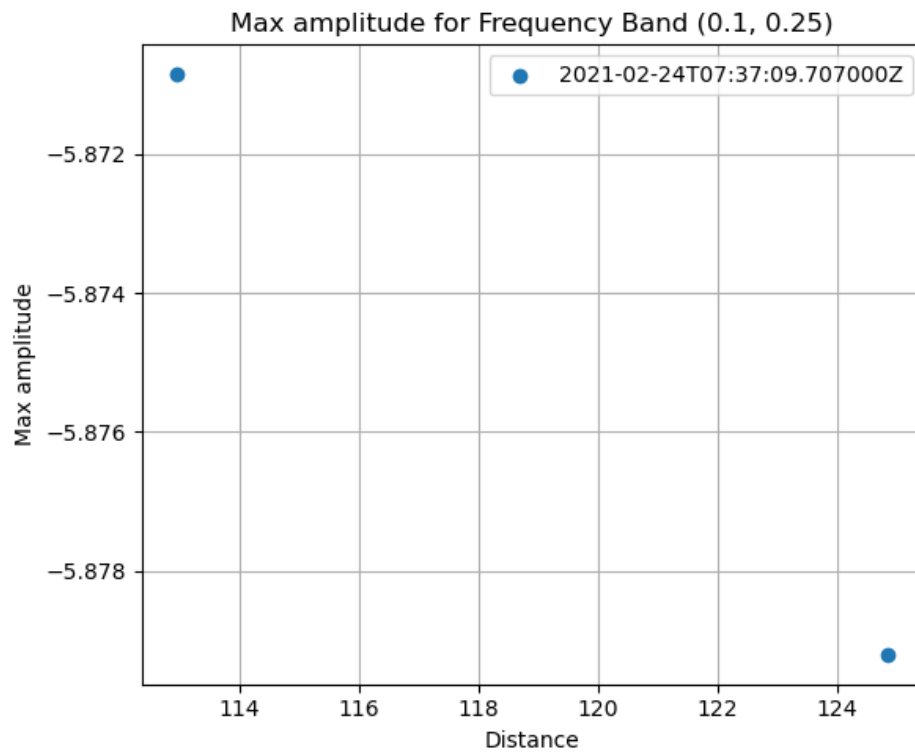
	frequency band	max amplitude (normalized)
99	(1.0, 1.25)	-0.908236753154556
100	(1.0, 1.25)	-0.762155695320672
101	(1.0, 1.25)	-0.046199213156678
102	(1.0, 1.25)	0.054459506700179
103	(1.0, 1.25)	-0.648344873337269
104	(1.0, 1.25)	0.033026788072074



	station name	distance	event \
105	RAA21	112.950378556093909	2021-02-24T07:37:09.707000Z
106	REF37	124.833674807427698	2021-02-24T07:37:09.707000Z

	location	magnitude	mag type	max amplitude \
105	[18.5623, -73.3856, 10.0]	4.2000000000000000	mb	0.000001346332410
106	[18.5623, -73.3856, 10.0]	4.2000000000000000	mb	0.000001320645253

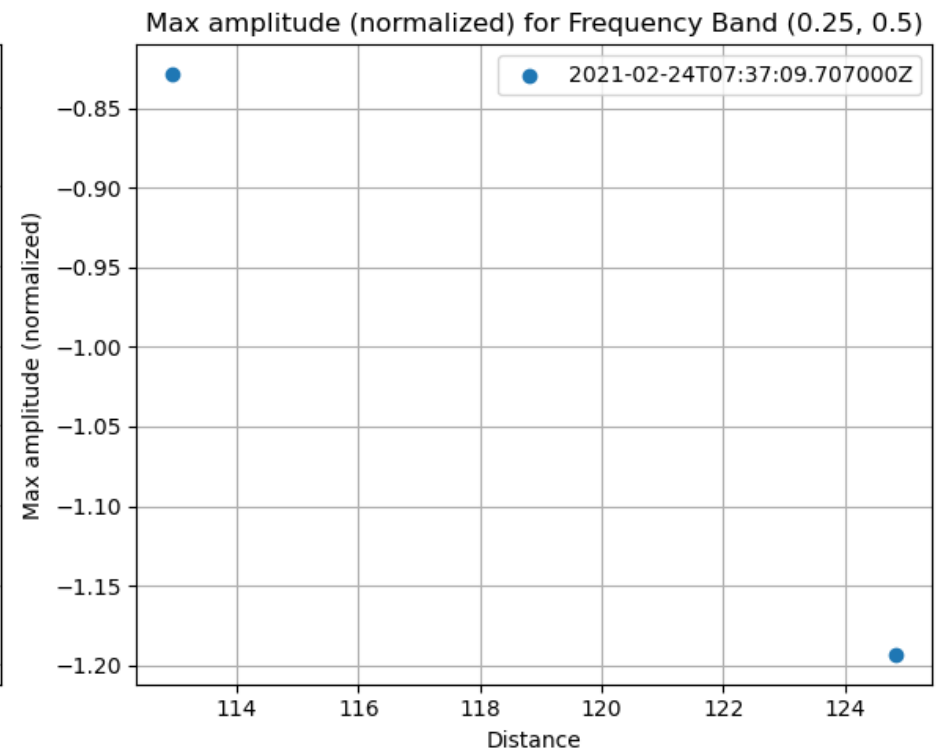
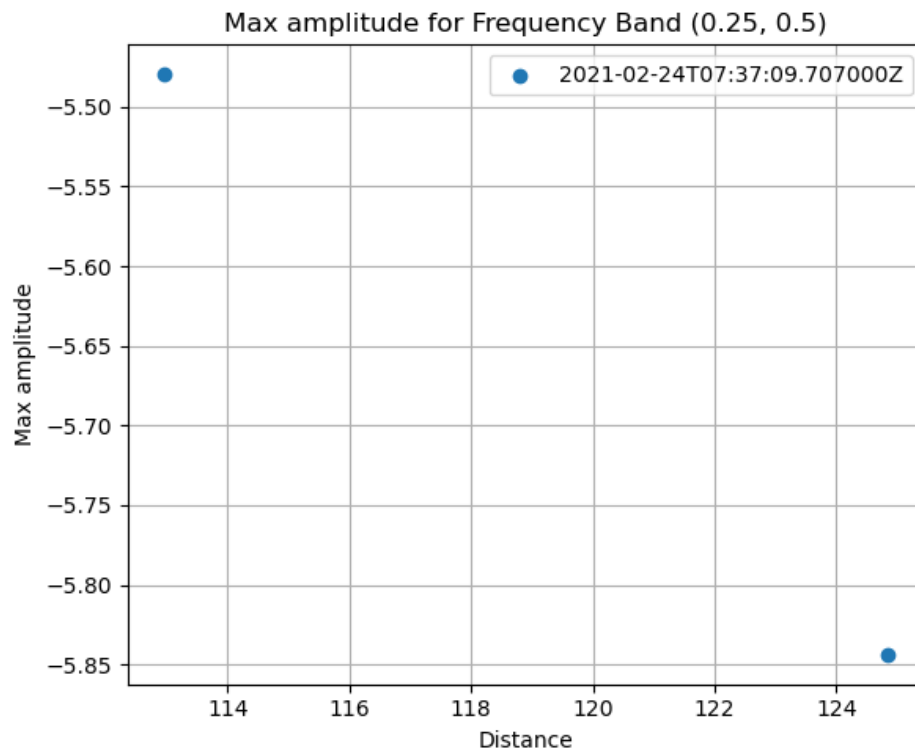
	frequency band	max amplitude (normalized)
105	(0.1, 0.25)	-1.220226294919162
106	(0.1, 0.25)	-1.228592421127871



	station name	distance	event \
107	RAA21	112.950378556093909	2021-02-24T07:37:09.707000Z
108	REF37	124.833674807427698	2021-02-24T07:37:09.707000Z

	location	magnitude	mag type	max amplitude \
107	[18.5623, -73.3856, 10.0]	4.200000000000000	mb	0.000003317546227
108	[18.5623, -73.3856, 10.0]	4.200000000000000	mb	0.000001431712344

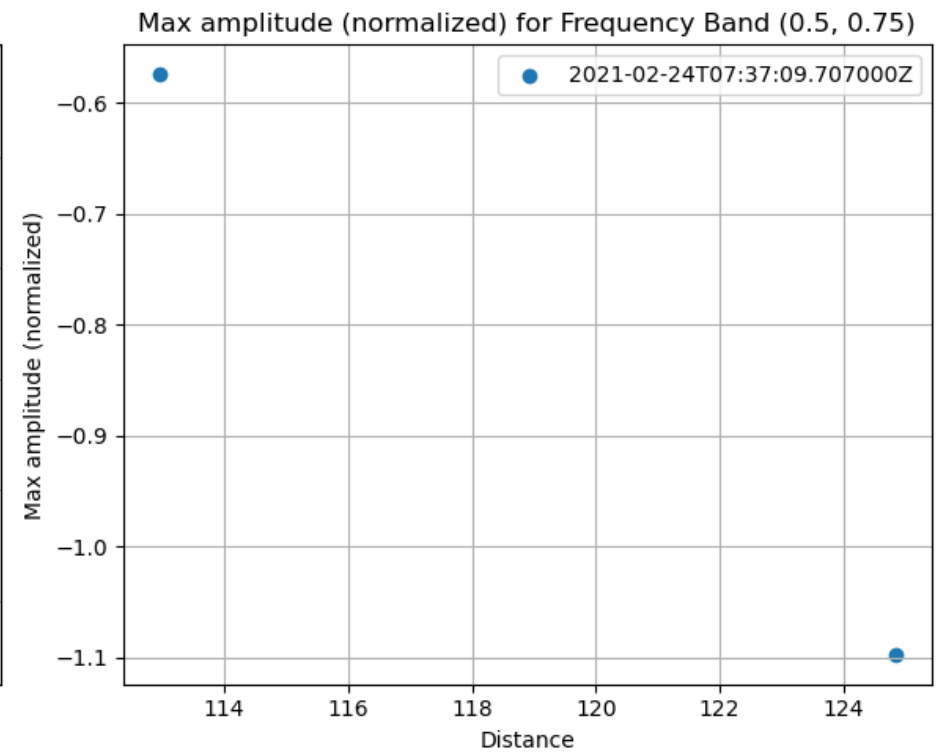
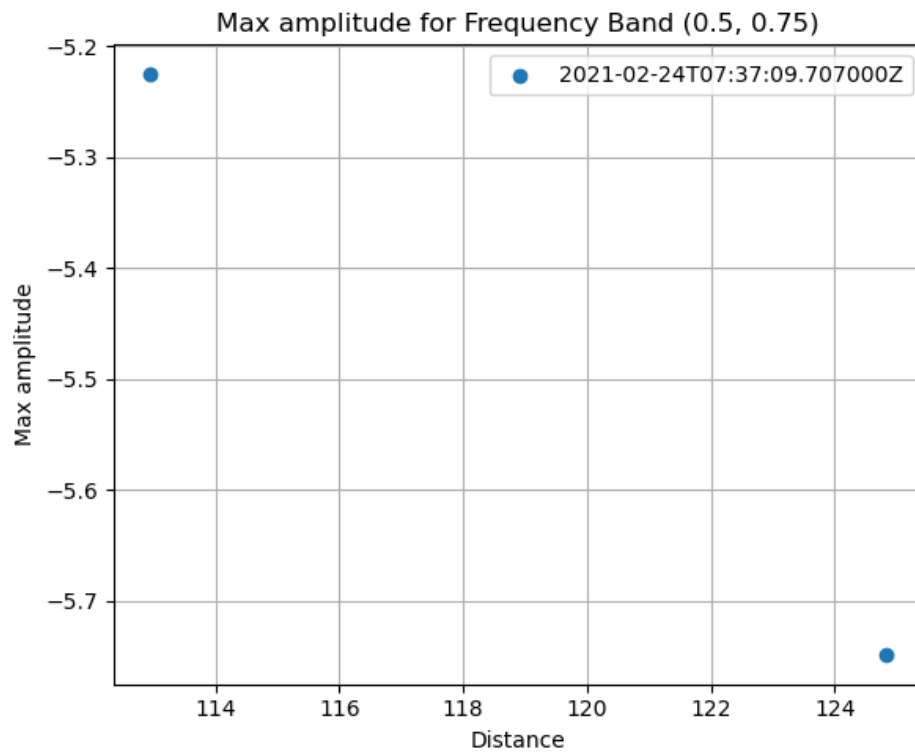
	frequency band	max amplitude (normalized)
107	(0.25, 0.5)	-0.828561612587965
108	(0.25, 0.5)	-1.193522826397907



	station name	distance	event \
109	RAA21	112.950378556093909	2021-02-24T07:37:09.707000Z
110	REF37	124.833674807427698	2021-02-24T07:37:09.707000Z

	location	magnitude	mag type	max amplitude \
109	[18.5623, -73.3856, 10.0]	4.200000000000000	mb	0.000005962581694
110	[18.5623, -73.3856, 10.0]	4.200000000000000	mb	0.000001783246231

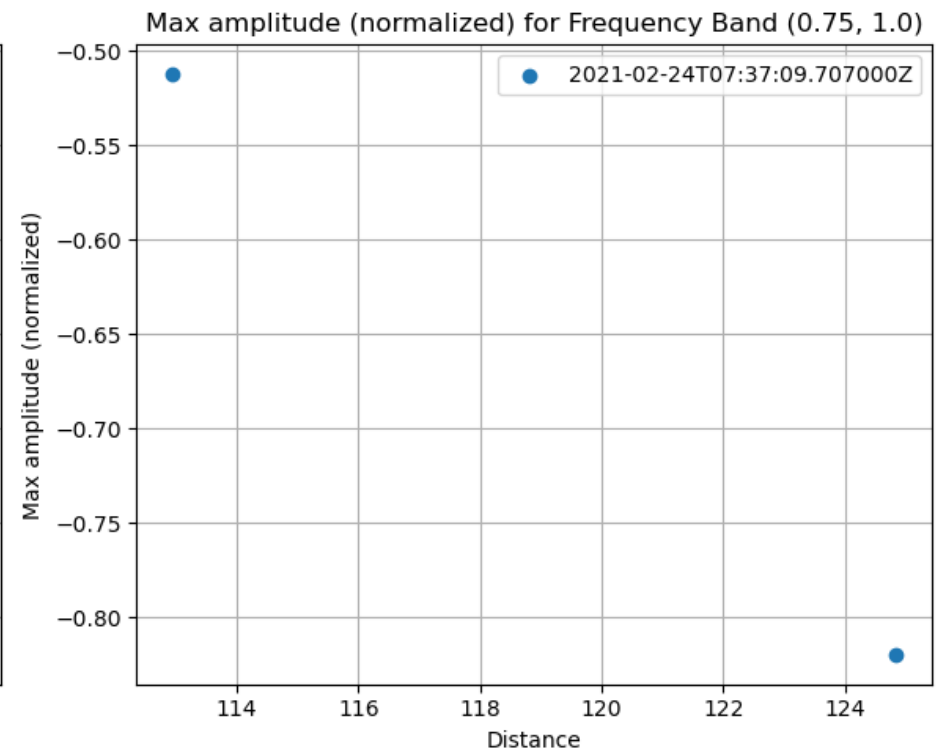
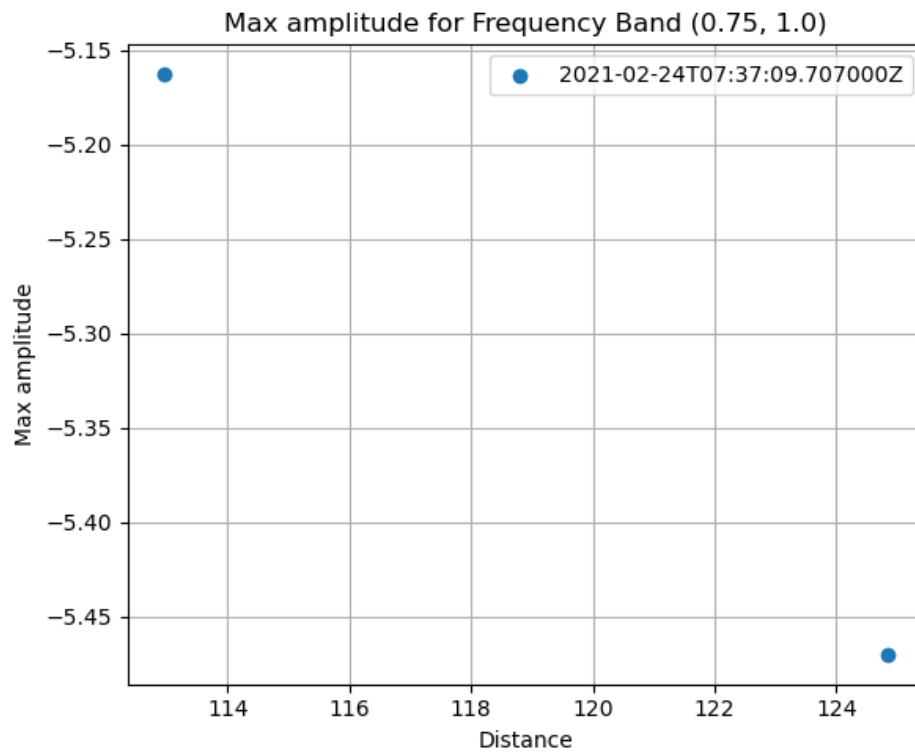
	frequency band	max amplitude (normalized)
109	(0.5, 0.75)	-0.573944253272725
110	(0.5, 0.75)	-1.098167280826584



	station name	distance	event \
111	RAA21	112.950378556093909	2021-02-24T07:37:09.707000Z
112	REF37	124.833674807427698	2021-02-24T07:37:09.707000Z

	location	magnitude	mag type	max amplitude \
111	[18.5623, -73.3856, 10.0]	4.2000000000000000	mb	0.000006877687743
112	[18.5623, -73.3856, 10.0]	4.2000000000000000	mb	0.000003384097706

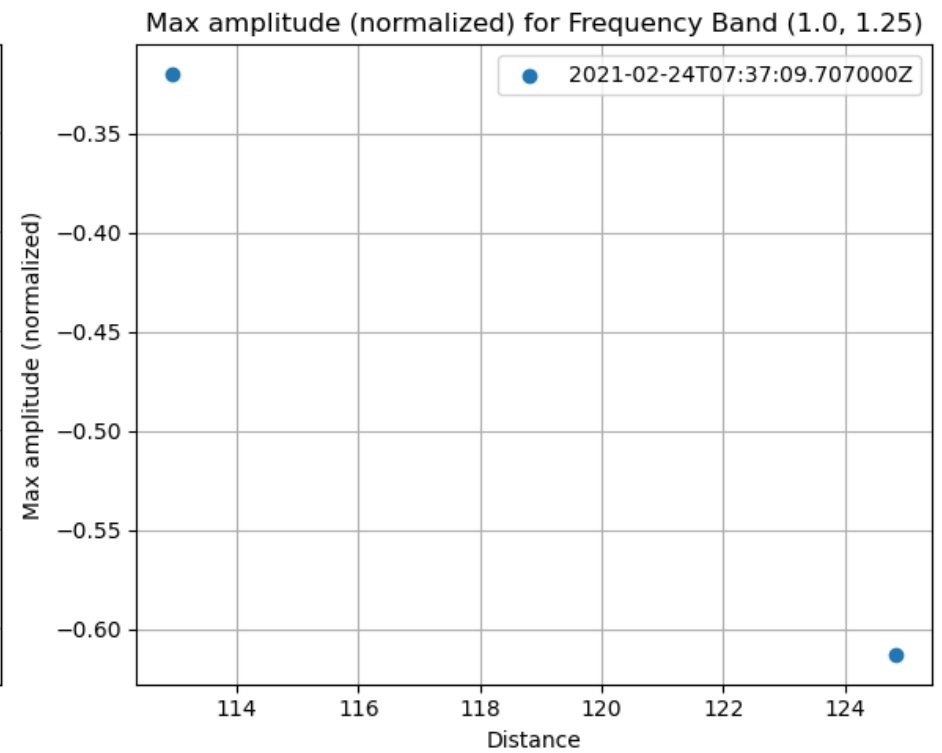
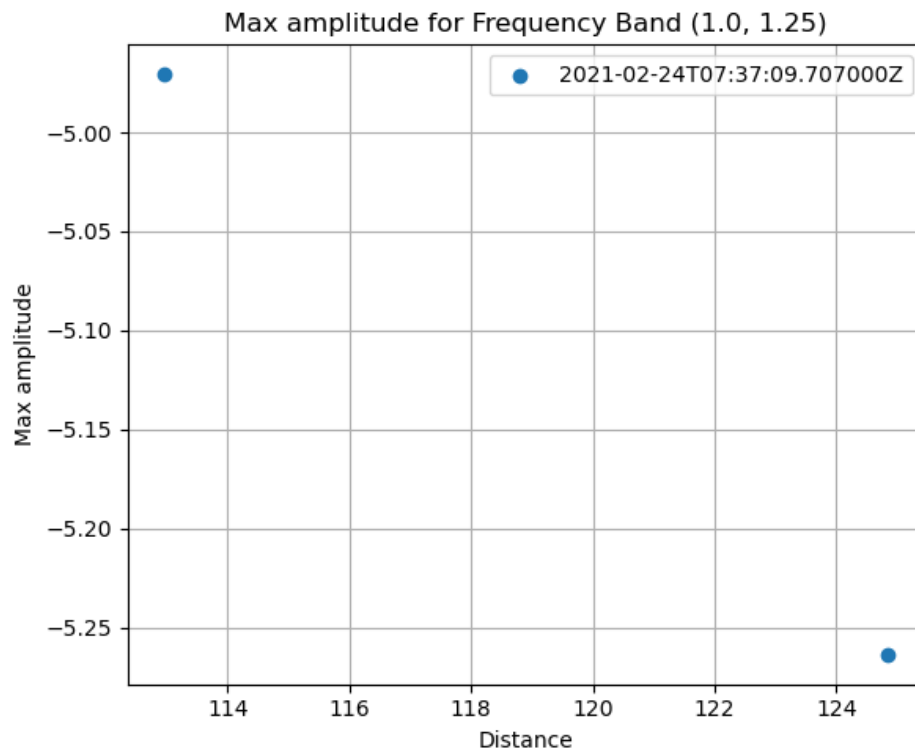
	frequency band	max amplitude (normalized)
111	(0.75, 1.0)	-0.511936141357815
112	(0.75, 1.0)	-0.819935702099852



	station name	distance	event \
113	RAA21	112.950378556093909	2021-02-24T07:37:09.707000Z
114	REF37	124.833674807427698	2021-02-24T07:37:09.707000Z

	location	magnitude	mag type	max amplitude \
113	[18.5623, -73.3856, 10.0]	4.200000000000000	mb	0.000010704896724
114	[18.5623, -73.3856, 10.0]	4.200000000000000	mb	0.000005446742628

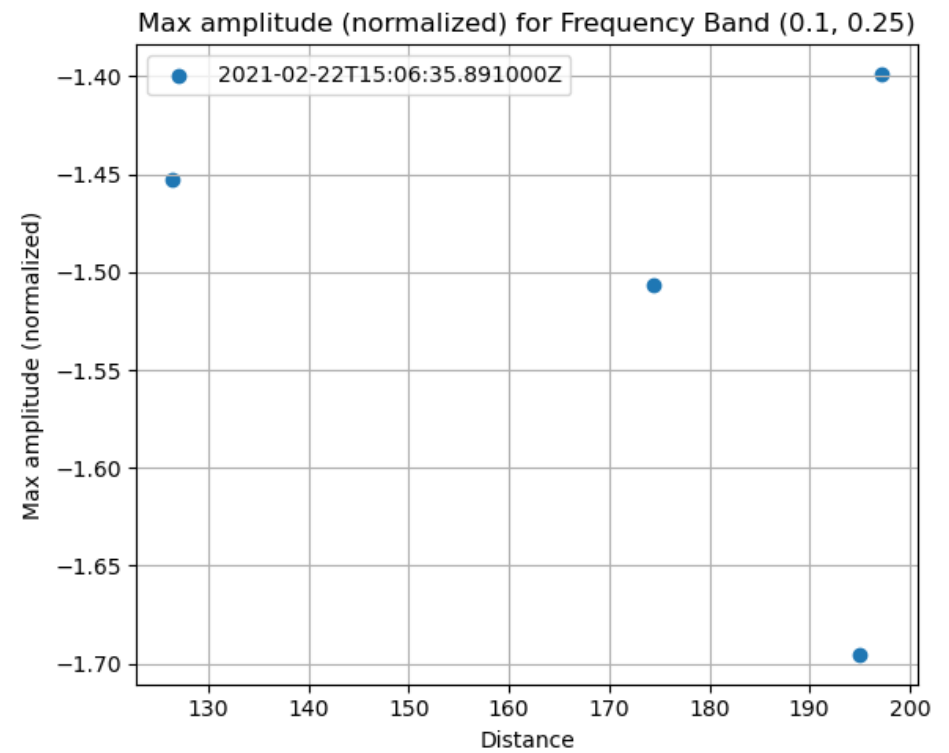
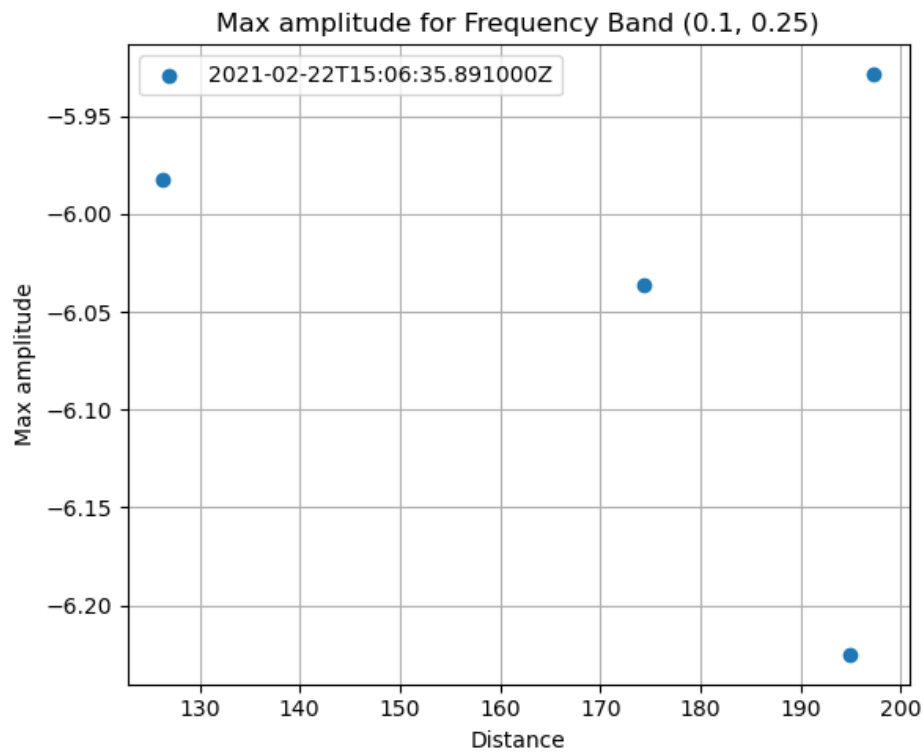
	frequency band	max amplitude (normalized)
113	(1.0, 1.25)	-0.319796113901166
114	(1.0, 1.25)	-0.613241741382427



	station name	distance	event \
115	R4EEE	194.958347273964051	2021-02-22T15:06:35.891000Z
116	R595E	126.377157025600525	2021-02-22T15:06:35.891000Z
117	RAA21	197.252064683432252	2021-02-22T15:06:35.891000Z
118	REF37	174.346102560264825	2021-02-22T15:06:35.891000Z

	location	magnitude	mag type	max amplitude \
115	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000000595120801
116	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000001041889920
117	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000001179031174
118	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000000919438703

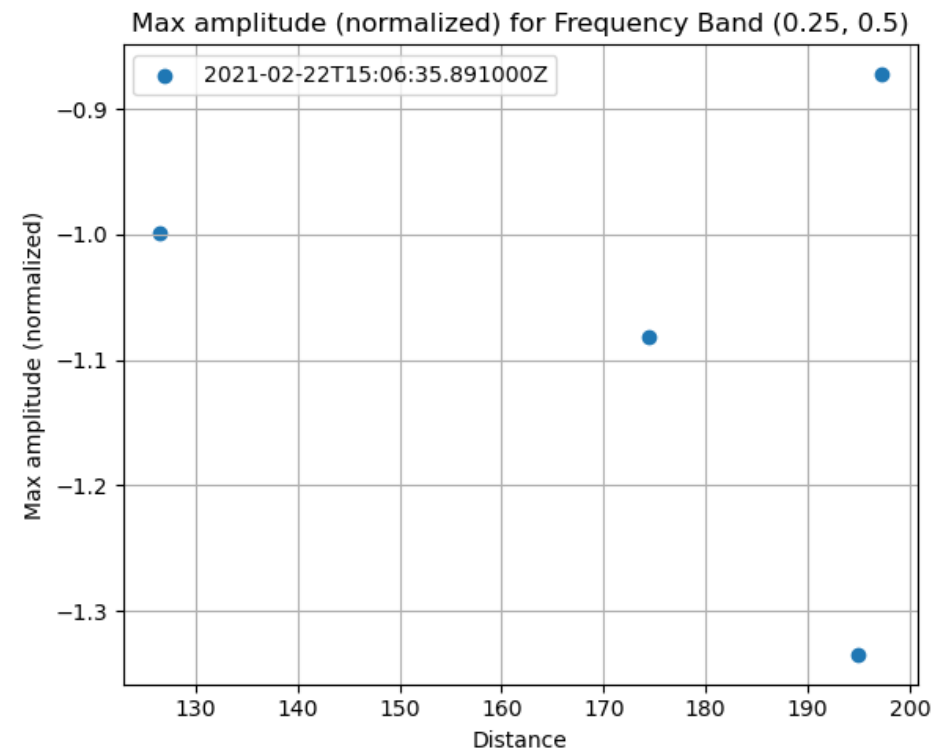
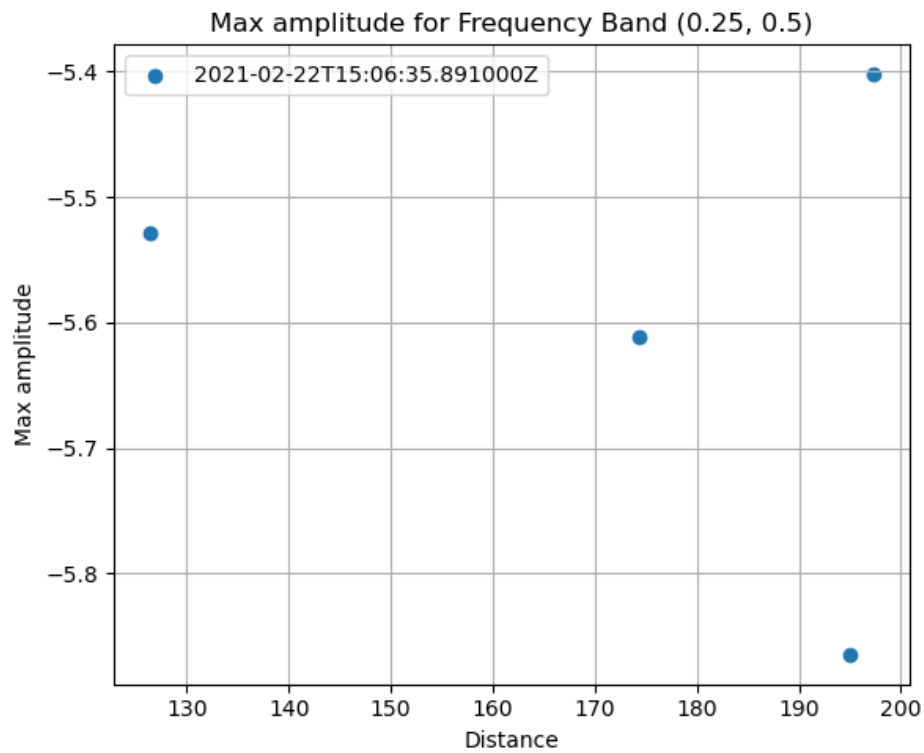
	frequency band	max amplitude (normalized)
115	(0.1, 0.25)	-1.695657022807263
116	(0.1, 0.25)	-1.452440316408558
117	(0.1, 0.25)	-1.398736864650388
118	(0.1, 0.25)	-1.506739371651758



	station name	distance	event \
119	R4EEE	194.958347273964051	2021-02-22T15:06:35.891000Z
120	R595E	126.377157025600525	2021-02-22T15:06:35.891000Z
121	RAA21	197.252064683432252	2021-02-22T15:06:35.891000Z
122	REF37	174.346102560264825	2021-02-22T15:06:35.891000Z

	location	magnitude	mag type	max amplitude \
119	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000001364856453
120	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000002963935338
121	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000003966025188
122	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000002447033374

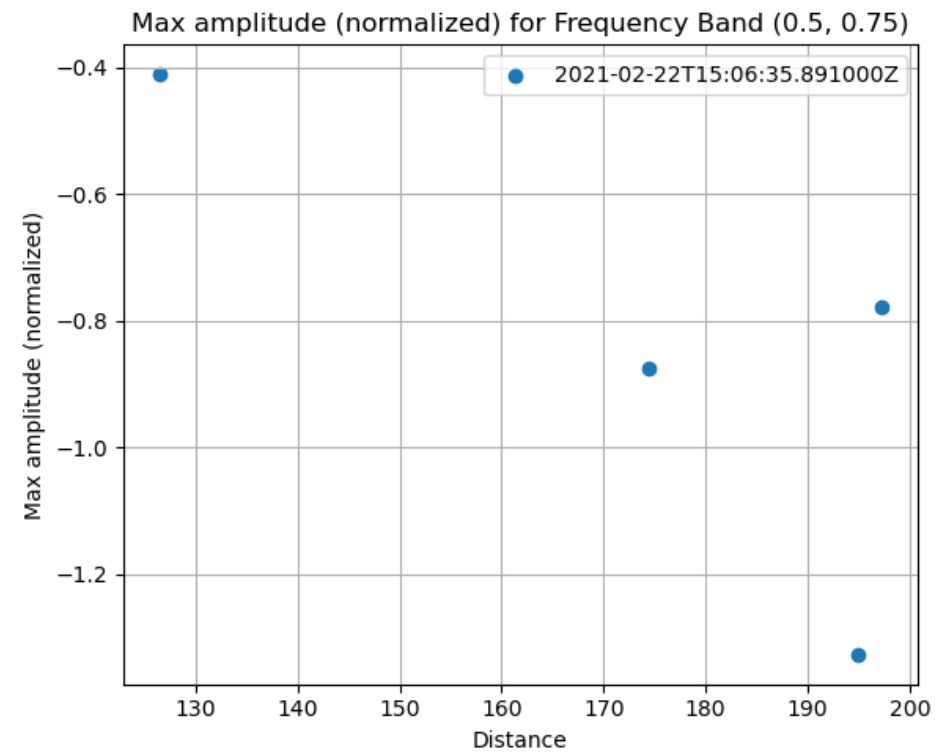
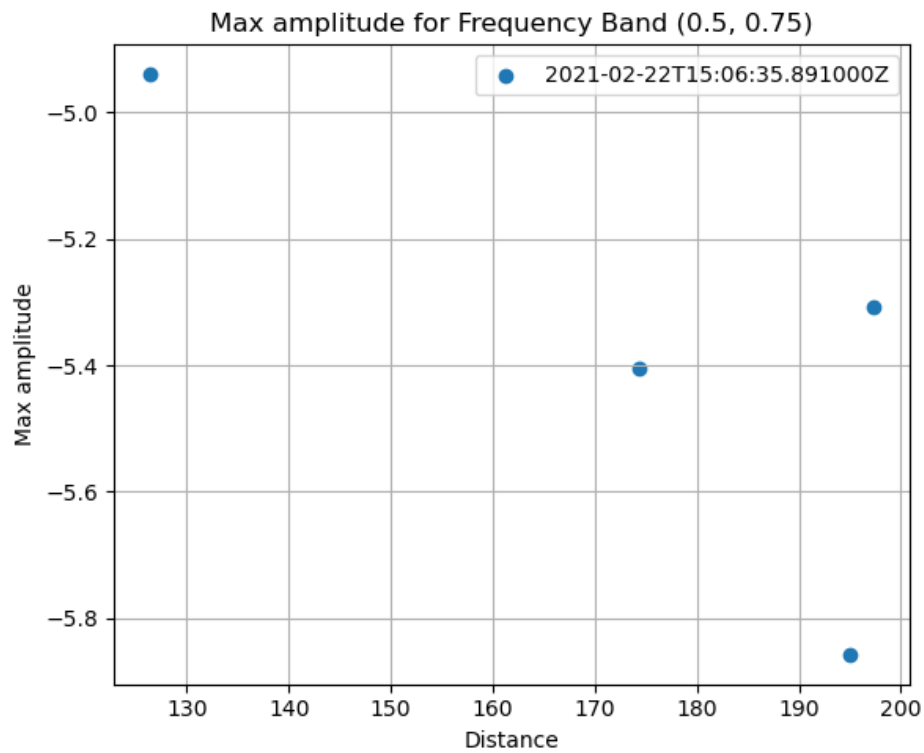
	frequency band	max amplitude (normalized)
119	(0.25, 0.5)	-1.335175175436034
120	(0.25, 0.5)	-0.998393428047176
121	(0.25, 0.5)	-0.871906684759439
122	(0.25, 0.5)	-1.081622260344037



	station name	distance	event \
123	R4EEE	194.958347273964051	2021-02-22T15:06:35.891000Z
124	R595E	126.377157025600525	2021-02-22T15:06:35.891000Z
125	RAA21	197.252064683432252	2021-02-22T15:06:35.891000Z
126	REF37	174.346102560264825	2021-02-22T15:06:35.891000Z

	location	magnitude	mag type	max amplitude \
123	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000001386848819
124	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000011492944315
125	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000004907577702
126	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000003944880237

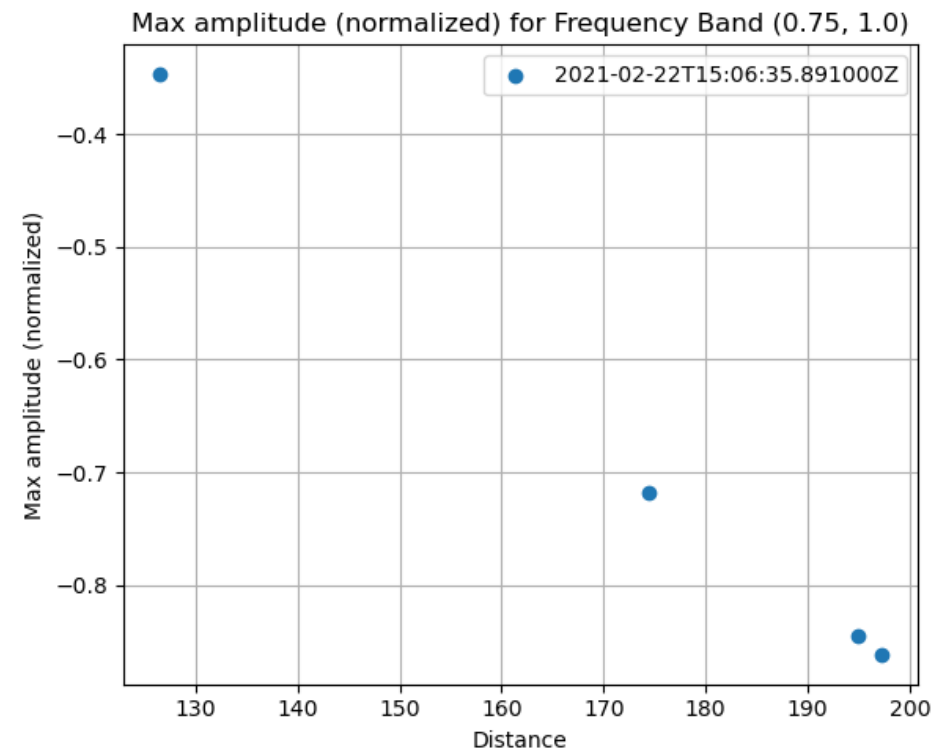
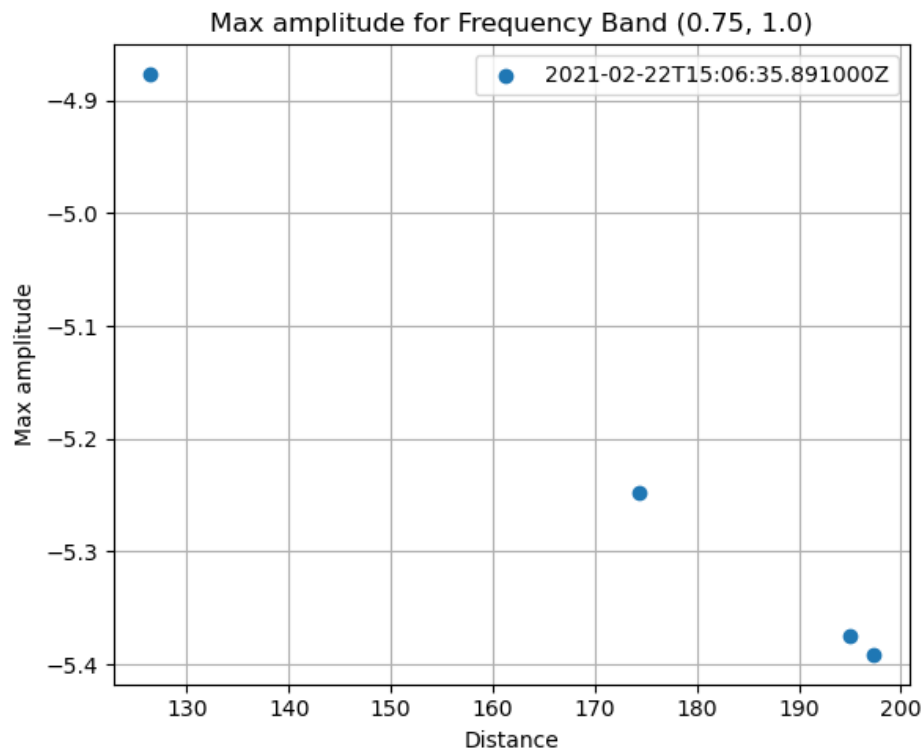
	frequency band	max amplitude (normalized)
123	(0.5, 0.75)	-1.328233031935917
124	(0.5, 0.75)	-0.409830850309524
125	(0.5, 0.75)	-0.779394968236949
126	(0.5, 0.75)	-0.874228329817972



	station name	distance	event \
127	R4EEE	194.958347273964051	2021-02-22T15:06:35.891000Z
128	R595E	126.377157025600525	2021-02-22T15:06:35.891000Z
129	RAA21	197.252064683432252	2021-02-22T15:06:35.891000Z
130	REF37	174.346102560264825	2021-02-22T15:06:35.891000Z

	location	magnitude	mag type	max amplitude \
127	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000004225379219
128	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000013296498818
129	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000004056613453
130	[19.8403, -71.0541, 10.0]	4.400000000000000	mb	0.000005655891236

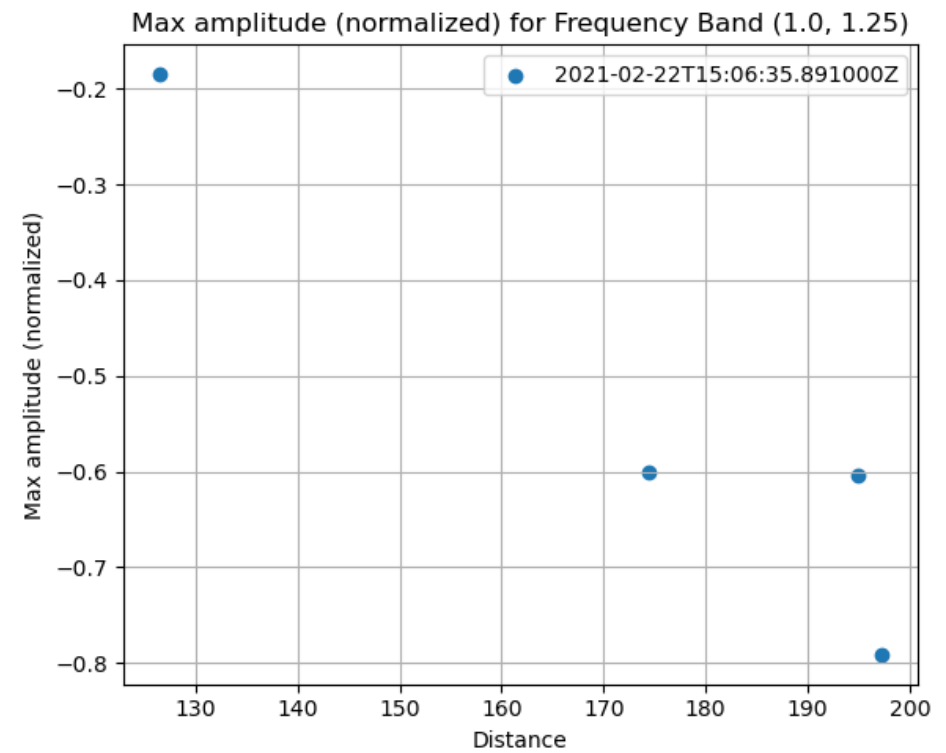
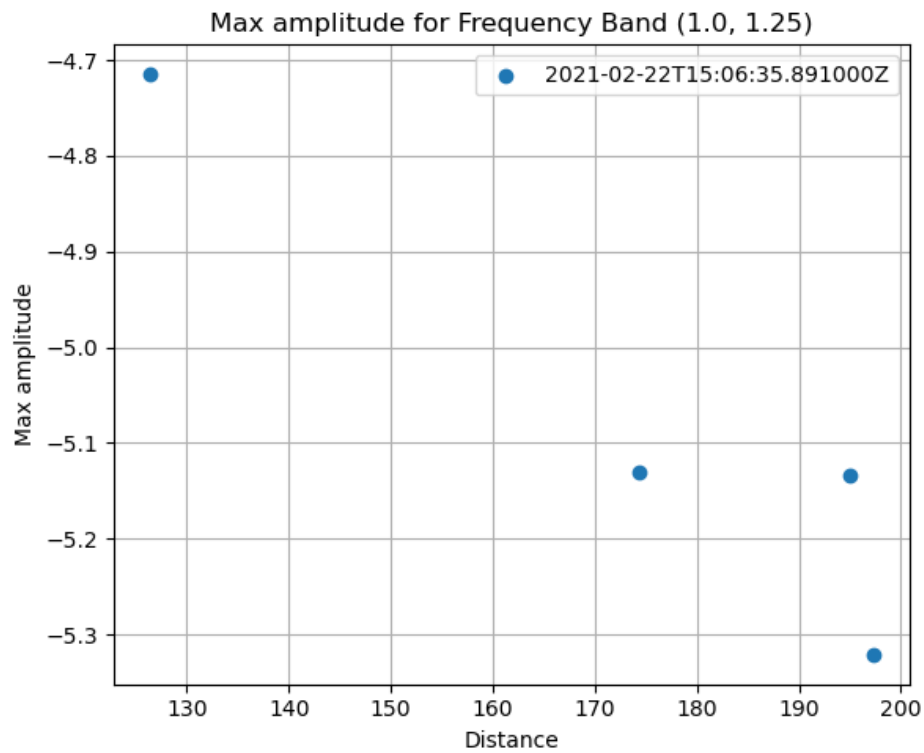
	frequency band	max amplitude (normalized)
127	(0.75, 1.0)	-0.844396460741568
128	(0.75, 1.0)	-0.346524853529864
129	(0.75, 1.0)	-0.862098526283902
130	(0.75, 1.0)	-0.717761103517024



	station name	distance	event \
131	R4EEE	194.958347273964051	2021-02-22T15:06:35.891000Z
132	R595E	126.377157025600525	2021-02-22T15:06:35.891000Z
133	RAA21	197.252064683432252	2021-02-22T15:06:35.891000Z
134	REF37	174.346102560264825	2021-02-22T15:06:35.891000Z

	location	magnitude	mag type	max amplitude \
131	[19.8403, -71.0541, 10.0]	4.4000000000000000	mb	0.000007341639405
132	[19.8403, -71.0541, 10.0]	4.4000000000000000	mb	0.000019309020312
133	[19.8403, -71.0541, 10.0]	4.4000000000000000	mb	0.000004768766218
134	[19.8403, -71.0541, 10.0]	4.4000000000000000	mb	0.000007398741526

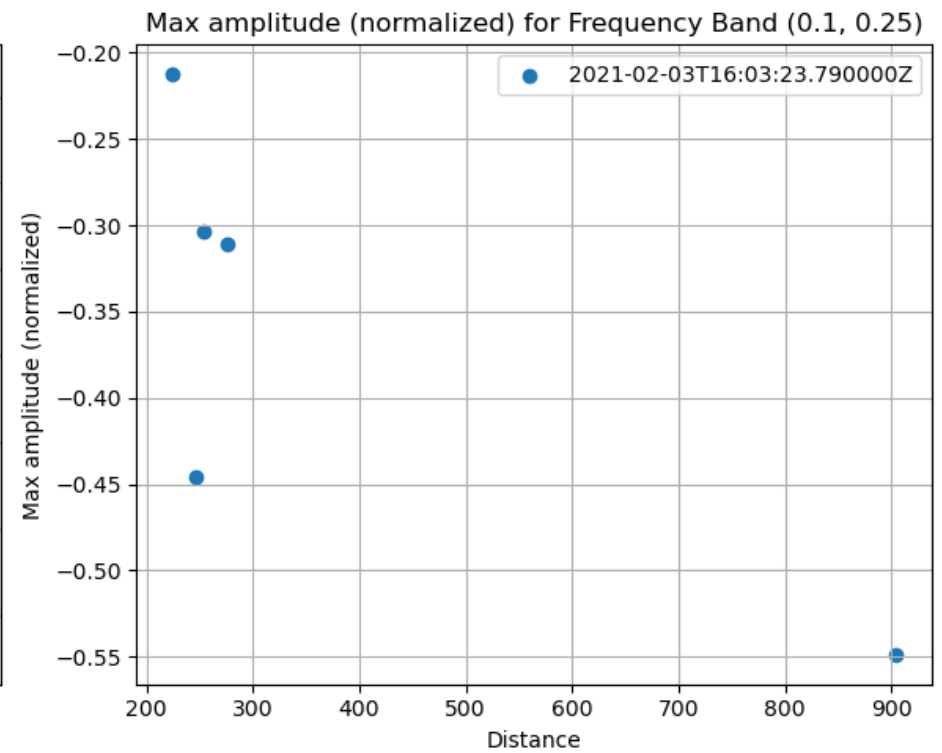
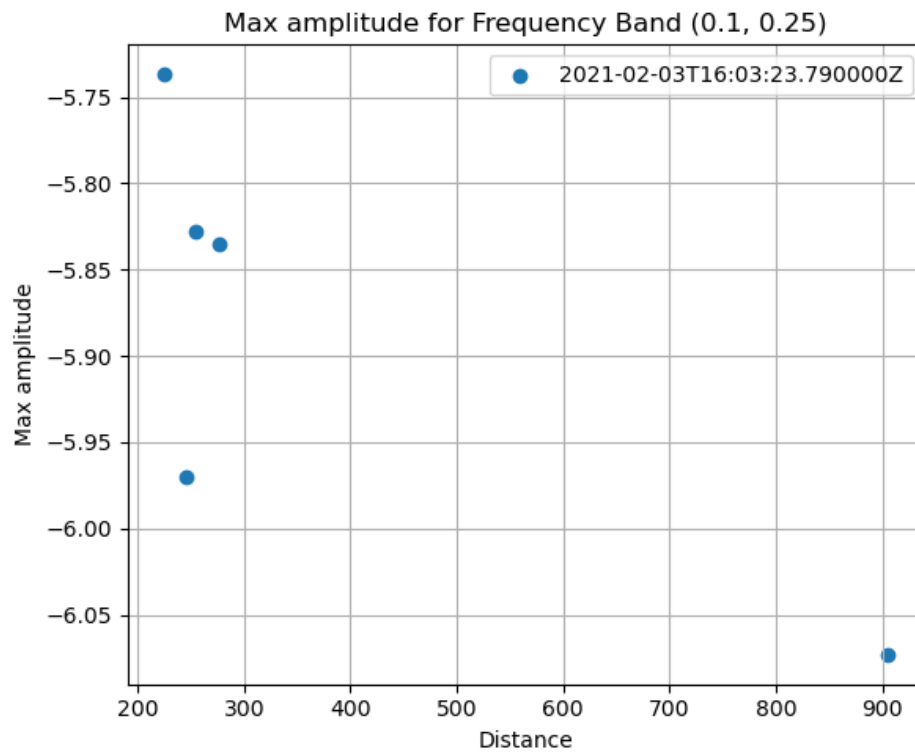
	frequency band	max amplitude (normalized)
131	(1.0, 1.25)	-0.604469103115958
132	(1.0, 1.25)	-0.184501913426940
133	(1.0, 1.25)	-0.791856120508677
134	(1.0, 1.25)	-0.601104297230854



	station name	distance	event \
135	R34A9	276.448964525551446	2021-02-03T16:03:23.790000Z
136	R3E0C	904.1599560877788146	2021-02-03T16:03:23.790000Z
137	R4DB9	245.897258514659399	2021-02-03T16:03:23.790000Z
138	RD17E	224.707141477152106	2021-02-03T16:03:23.790000Z
139	RD4D8	254.353897726109722	2021-02-03T16:03:23.790000Z

	location	magnitude	mag type	max amplitude \
135	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000001462277511
136	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000000844349855
137	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000001070475482
138	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000001834055503
139	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000001487021190

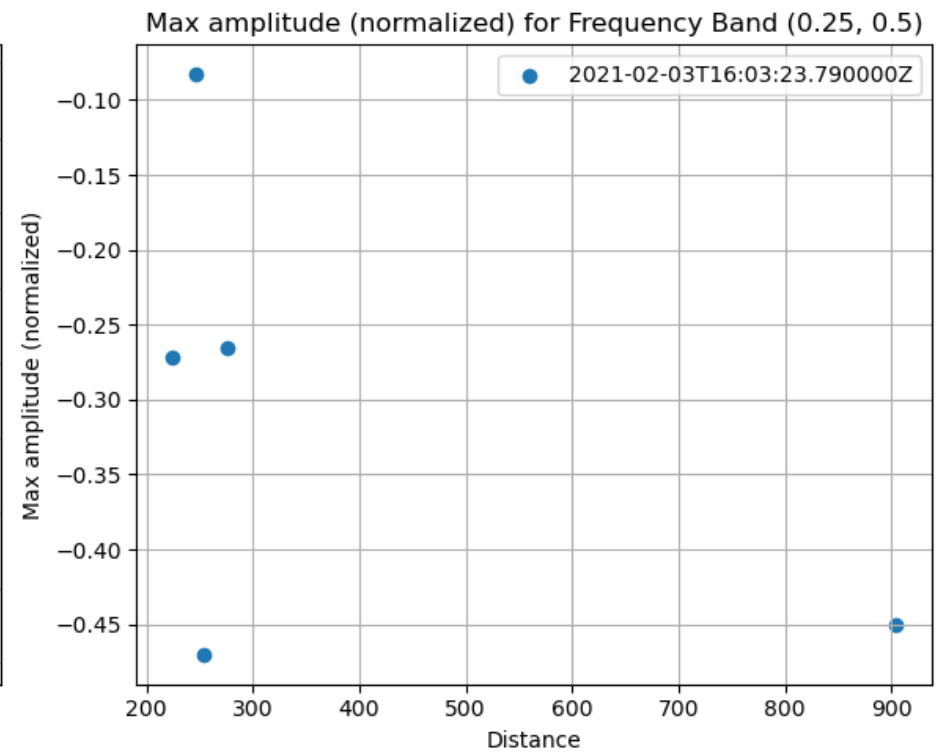
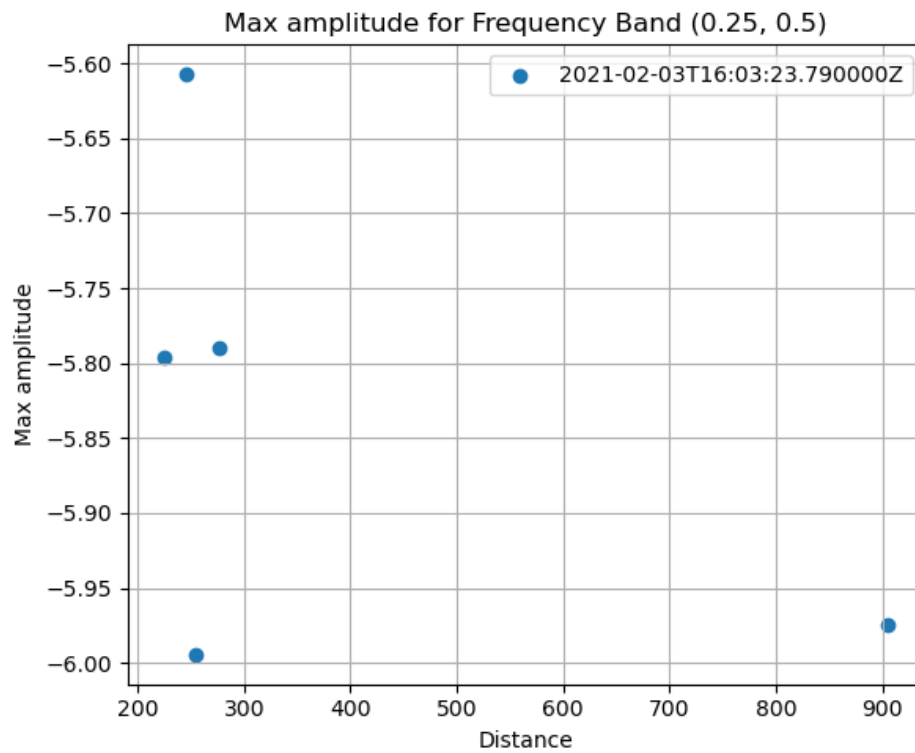
	frequency band	max amplitude (normalized)
135	(0.1, 0.25)	-0.310648550830948
136	(0.1, 0.25)	-0.549155918240268
137	(0.1, 0.25)	-0.446101626823345
138	(0.1, 0.25)	-0.212265877281186
139	(0.1, 0.25)	-0.303361194246862



	station name	distance	event \
140	R34A9	276.448964525551446	2021-02-03T16:03:23.790000Z
141	R3E0C	904.159956087788146	2021-02-03T16:03:23.790000Z
142	R4DB9	245.897258514659399	2021-02-03T16:03:23.790000Z
143	RD17E	224.707141477152106	2021-02-03T16:03:23.790000Z
144	RD4D8	254.353897726109722	2021-02-03T16:03:23.790000Z

	location	magnitude	mag type	max amplitude \
140	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000001621414053
141	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000001060670679
142	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000002472436089
143	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000001598506221
144	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000001011909263

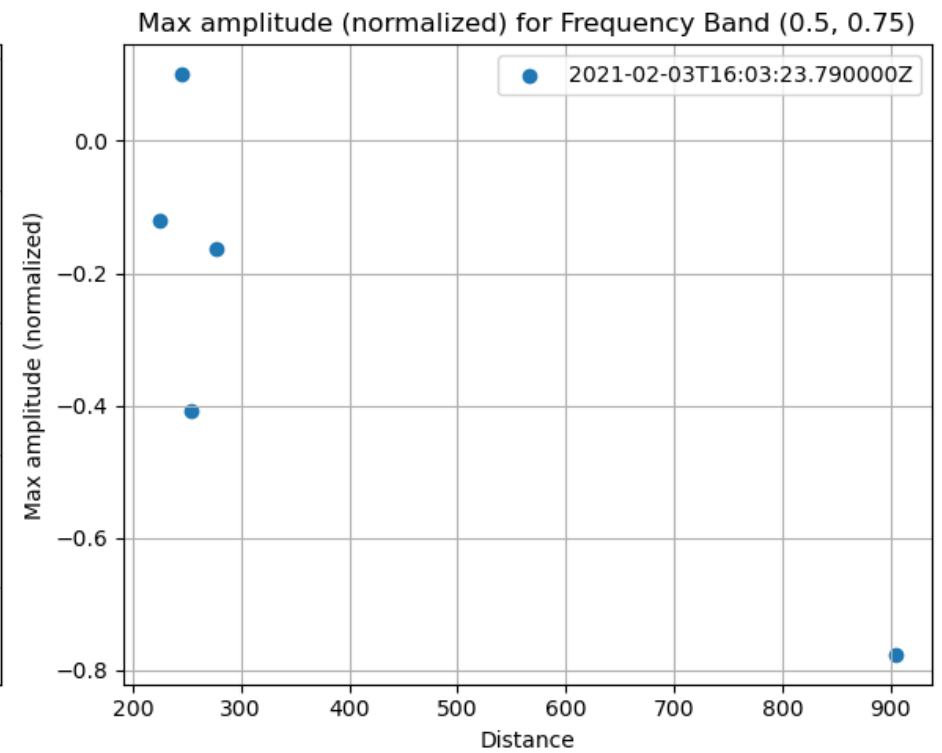
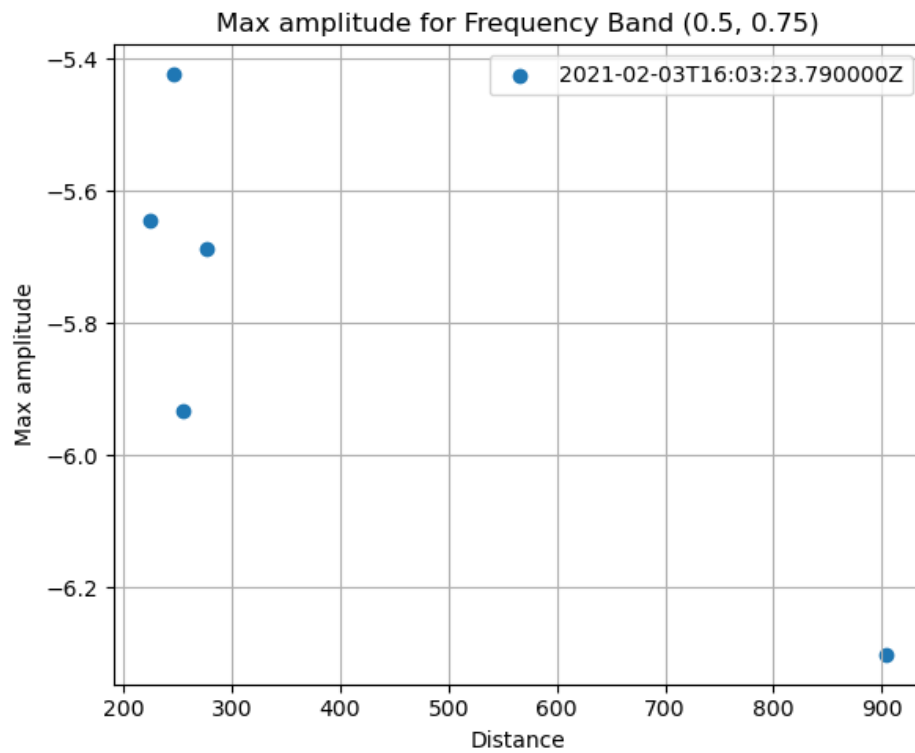
	frequency band	max amplitude (normalized)
140	(0.25, 0.5)	-0.265784418816195
141	(0.25, 0.5)	-0.450097788088129
142	(0.25, 0.5)	-0.082553277428206
143	(0.25, 0.5)	-0.271964020786472
144	(0.25, 0.5)	-0.470536780091622



	station name	distance	event \
145	R34A9	276.448964525551446	2021-02-03T16:03:23.790000Z
146	R3E0C	904.159956087788146	2021-02-03T16:03:23.790000Z
147	R4DB9	245.897258514659399	2021-02-03T16:03:23.790000Z
148	RD17E	224.707141477152106	2021-02-03T16:03:23.790000Z
149	RD4D8	254.353897726109722	2021-02-03T16:03:23.790000Z

	location	magnitude	mag type	max amplitude \
145	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000002053884333
146	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000000498954488
147	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000003777343925
148	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000002267116022
149	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000001170991727

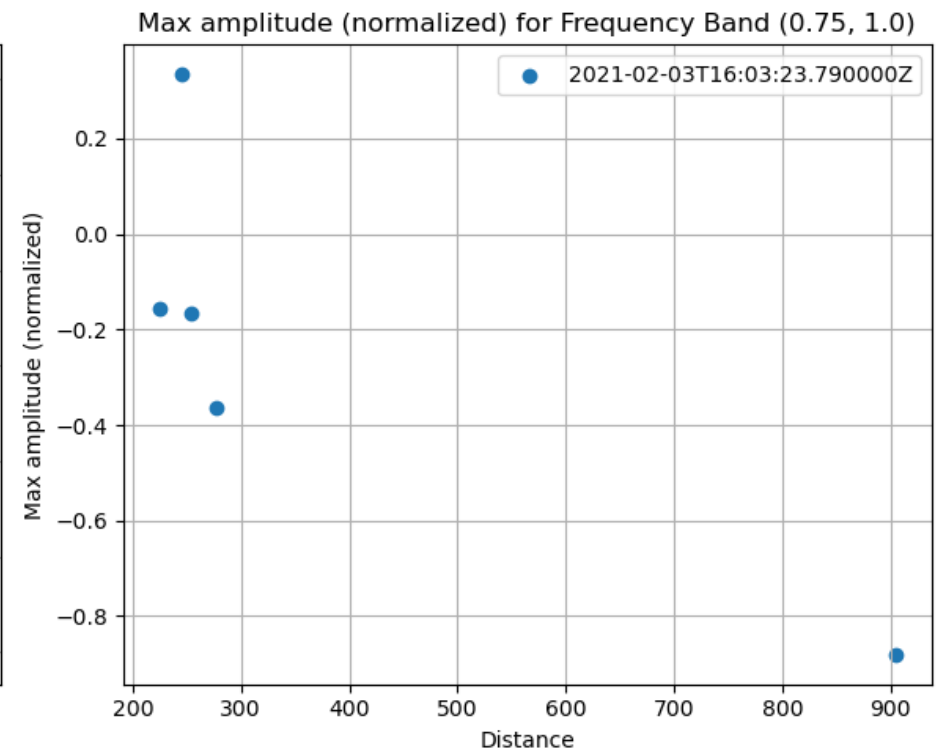
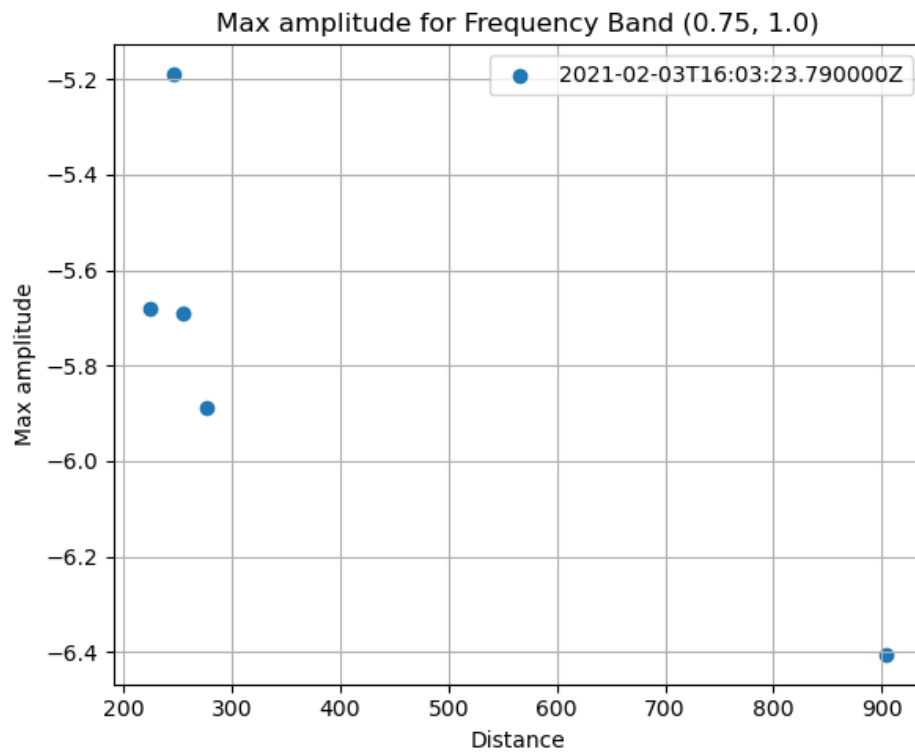
	frequency band	max amplitude (normalized)
145	(0.5, 0.75)	-0.163102369471159
146	(0.5, 0.75)	-0.777617418198852
147	(0.5, 0.75)	0.101508177374574
148	(0.5, 0.75)	-0.120204605345059
149	(0.5, 0.75)	-0.407124524853857



	station name	distance	event \
150	R34A9	276.448964525551446	2021-02-03T16:03:23.790000Z
151	R3E0C	904.159956087788146	2021-02-03T16:03:23.790000Z
152	R4DB9	245.897258514659399	2021-02-03T16:03:23.790000Z
153	RD17E	224.707141477152106	2021-02-03T16:03:23.790000Z
154	RD4D8	254.353897726109722	2021-02-03T16:03:23.790000Z

	location	magnitude	mag type	max amplitude \
150	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000001294083438
151	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000000392305791
152	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.0000006476976809
153	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000002083883263
154	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000002042847435

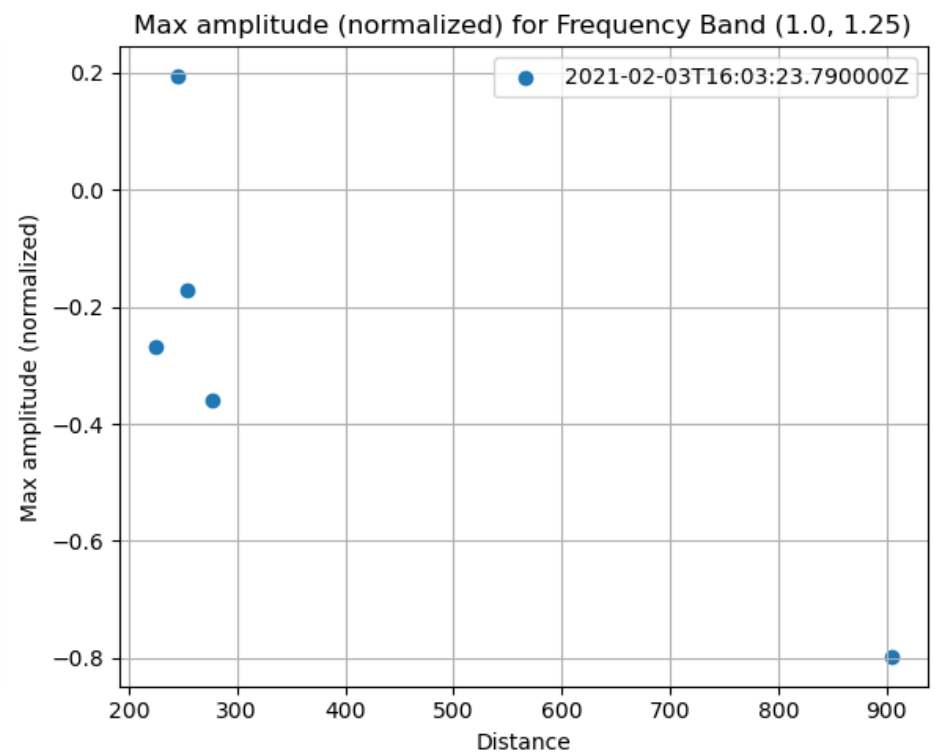
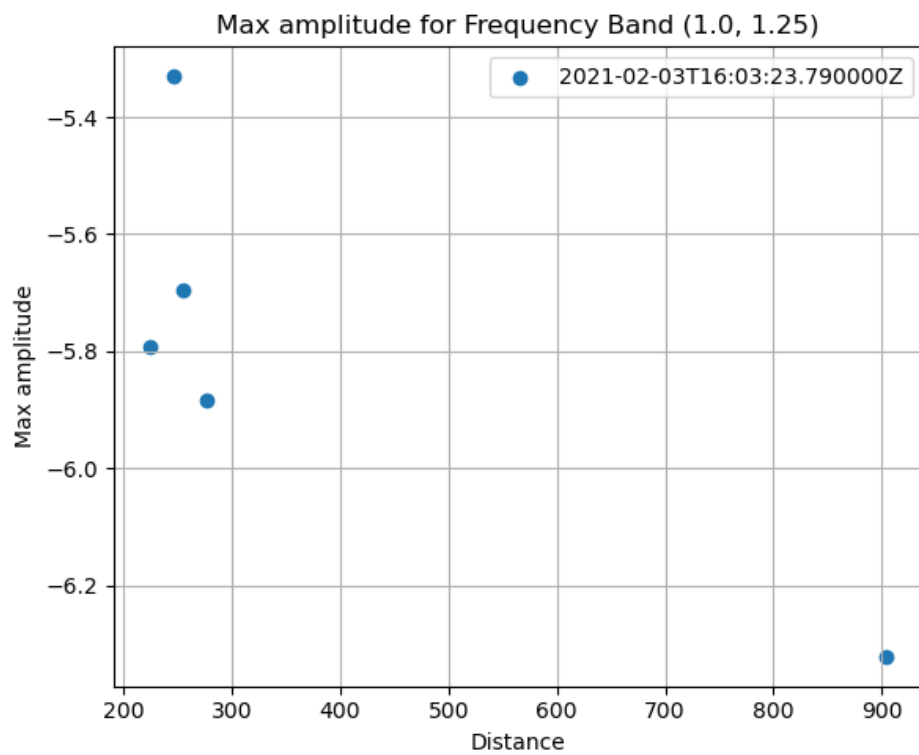
	frequency band	max amplitude (normalized)
150	(0.75, 1.0)	-0.363716072434435
151	(0.75, 1.0)	-0.882053632013575
152	(0.75, 1.0)	0.335693990495971
153	(0.75, 1.0)	-0.156804964895857
154	(0.75, 1.0)	-0.165442417855662



	station name	distance	event \
155	R34A9	276.448964525551446	2021-02-03T16:03:23.790000Z
156	R3E0C	904.159956087788146	2021-02-03T16:03:23.790000Z
157	R4DB9	245.897258514659399	2021-02-03T16:03:23.790000Z
158	RD17E	224.707141477152106	2021-02-03T16:03:23.790000Z
159	RD4D8	254.353897726109722	2021-02-03T16:03:23.790000Z

	location	magnitude	mag type	max amplitude \
155	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000001308983958
156	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.000000475403797
157	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.0000004685028845
158	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.0000001609936066
159	[19.0905, -68.8785, 8.0]	4.180000000000000	md	0.0000002013303970

	frequency band	max amplitude (normalized)
155	(1.0, 1.25)	-0.358744027489038
156	(1.0, 1.25)	-0.798615705180211
157	(1.0, 1.25)	0.195033917518781
158	(1.0, 1.25)	-0.268869722022824
159	(1.0, 1.25)	-0.171769001645708



In []: