ACKed: 1 isACKmessage: 1

```
estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 74.3360
           estimatedDelay: 0.0282
           estimatedPhase: 0.9260
ans =
    "Results saved in MM_test_4.98_12.6_f0_d1000_s10_c5.json"
Elapsed time is 7.422412 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.346454 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
```

```
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0087
       idStartTime: 281653
    idDopplerShift: 51
              mean: -4.9613e-12
        meanSquare: 4.7448e-09
             phase: 0.9260
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
ans =
    "Received message analyzed."
```

```
ans =
    "DEMODULATION RESULT 1"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 1
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010100110001110011001011101110'
                      CRC: '000110111100100010100001'
                    ACKed: 1
             isACKmessage: 1
    estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 74.3360
           estimatedDelay: 0.0282
           estimatedPhase: 0.9260
ans =
    "Results saved in MM_test_5.32_12.6_f0_d1000_s10_c5.json"
Elapsed time is 7.408067 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.343639 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
```

```
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0070
       idStartTime: 281653
    idDopplerShift: 51
              mean: 1.6298e-09
        meanSquare: 3.0025e-09
             phase: 0.9260
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
```

```
"Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 1"
ans =
 struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 1
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010100110001110011001011101110'
                      CRC: '000110111100100010100001'
                    ACKed: 1
             isACKmessage: 1
    estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 74.3360
           estimatedDelay: 0.0282
           estimatedPhase: 0.9260
ans =
    "Results saved in MM_test_5.65_12.6_f0_d1000_s10_c5.json"
Elapsed time is 7.441957 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.342446 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
```

```
"Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0055
       idStartTime: 281653
    idDopplerShift: 51
              mean: 1.8526e-09
        meanSquare: 1.9014e-09
             phase: 0.9260
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
```

```
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 1"
ans =
 struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 1
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010100110001110011001011101110'
                      CRC: '000110111100100010100001'
                    ACKed: 1
             isACKmessage: 1
    estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 74.3360
           estimatedDelay: 0.0282
           estimatedPhase: 0.9260
```

```
"Results saved in MM_test_5.98_12.6_f0_d1000_s10_c5.json"
Elapsed time is 7.412847 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.339569 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
```

struct with fields:

```
maxPeak: 0.0044
       idStartTime: 281653
    idDopplerShift: 51
              mean: 1.5714e-09
        meanSquare: 1.2031e-09
             phase: 0.9260
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 1"
ans =
  struct with fields:
```

```
version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 1
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010100110001110011001011101110'
                      CRC: '000110111100100010100001'
                    ACKed: 1
             isACKmessage: 1
    estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 74.3360
           estimatedDelay: 0.0282
           estimatedPhase: 0.9260
ans =
    "Results saved in MM_test_6.31_12.6_f0_d1000_s10_c5.json"
Elapsed time is 7.462113 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.343757 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
```

```
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0035
       idStartTime: 281653
    idDopplerShift: 51
              mean: 6.5411e-11
        meanSquare: 7.6082e-10
             phase: 0.9260
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
```

```
ans =
    "Tracker step 8: demodulated 80 symbols."
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 1"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 1
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010100110001110011001011101110'
                      CRC: '000110111100100010100001'
                    ACKed: 1
             isACKmessage: 1
    estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 74.3360
           estimatedDelay: 0.0282
           estimatedPhase: 0.9260
ans =
    "Results saved in MM_test_6.64_12.6_f0_d1000_s10_c5.json"
Elapsed time is 7.426391 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.344808 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
```

```
"Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0878
       idStartTime: 281651
    idDopplerShift: 51
              mean: 3.2118e-08
        meanSquare: 3.0350e-07
             phase: 1.9936
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
```

```
"Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111111.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 000110111100100011100001 and CRC remainder 0000000000000000001000000
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010100110001110011001011101110'
                      CRC: '000110111100100011100001'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 82.1007
           estimatedDelay: 0.0282
           estimatedPhase: 1.9936
```

```
"Results saved in MM_test_2.32_25.4_f0_d1000_s10_c5.json"
Elapsed time is 7.482378 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.351926 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
```

```
struct with fields:
         maxPeak: 0.0552
      idStartTime: 281651
   idDopplerShift: 51
            mean: 2.2468e-08
       meanSquare: 1.1987e-07
           phase: 1.9936
ans =
   "Tracker step 1: demodulated 10 symbols."
ans =
   "Tracker step 2: demodulated 20 symbols."
ans =
   "Tracker step 3: demodulated 30 symbols."
ans =
   "Tracker step 4: demodulated 40 symbols."
ans =
   "Tracker step 5: demodulated 50 symbols."
ans =
   "Tracker step 6: demodulated 60 symbols."
ans =
   "Tracker step 7: demodulated 70 symbols."
ans =
   "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111111.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
   "Received message analyzed."
```

```
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010100110001110011001011101110'
                      CRC: '000110111100100011100001'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 82.1007
           estimatedDelay: 0.0282
           estimatedPhase: 1.9936
ans =
    "Results saved in MM_test_2.99_25.4_f0_d1000_s10_c5.json"
Elapsed time is 7.506407 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.371895 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
```

```
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0349
       idStartTime: 281651
    idDopplerShift: 51
              mean: 1.4738e-08
        meanSquare: 4.8006e-08
             phase: 1.9936
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
```

```
"Tracker step 6: demodulated 60 symbols."
ans =
   "Tracker step 7: demodulated 70 symbols."
ans =
   "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111111.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
   "Received message analyzed."
ans =
   "DEMODULATION RESULT 0"
ans =
 struct with fields:
                version: "2"
          ACQUISITION_OK: 1
             TRACKING_OK: 1
         DEMODULATION_OK: 0
                  SV_ID: '000001'
             message_ID: '0011'
            message_body: '010100110001110011001011101110'
                    CRC: '000110111100100011100001'
                  ACKed: 0
            isACKmessage: 1
   estimatedDopplerStart: 60.1010
     estimatedDopplerEnd: 82.1007
          estimatedDelay: 0.0282
          estimatedPhase: 1.9936
ans =
   "Results saved in MM_test_3.65_25.4_f0_d1000_s10_c5.json"
Elapsed time is 7.485769 seconds.
ans =
   "Generation test signal completed."
```

```
Elapsed time is 0.354073 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0219
       idStartTime: 281651
    idDopplerShift: 51
              mean: 3.6566e-09
        meanSquare: 1.8983e-08
             phase: 1.9936
```

```
ans =
   "Tracker step 1: demodulated 10 symbols."
ans =
   "Tracker step 2: demodulated 20 symbols."
ans =
   "Tracker step 3: demodulated 30 symbols."
ans =
   "Tracker step 4: demodulated 40 symbols."
ans =
   "Tracker step 5: demodulated 50 symbols."
ans =
   "Tracker step 6: demodulated 60 symbols."
ans =
   "Tracker step 7: demodulated 70 symbols."
ans =
   "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111111.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
   "Received message analyzed."
ans =
   "DEMODULATION RESULT 0"
ans =
 struct with fields:
```

```
version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010100110001110011001011101110'
                      CRC: '000110111100100011100001'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 82.1007
           estimatedDelay: 0.0282
           estimatedPhase: 1.9936
ans =
    "Results saved in MM_test_4.32_25.4_f0_d1000_s10_c5.json"
Elapsed time is 7.468560 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.357416 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
```

```
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
          maxPeak: 0.0139
       idStartTime: 281651
    idDopplerShift: 51
              mean: 2.9249e-09
        meanSquare: 7.5993e-09
             phase: 1.9936
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
```

```
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111111.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 000110111100100011100001 and CRC remainder 0000000000000000001000000
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION OK: 1
              TRACKING_OK: 1
          DEMODULATION OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010100110001110011001011101110'
                      CRC: '000110111100100011100001'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 82.1007
           estimatedDelay: 0.0282
           estimatedPhase: 1.9936
ans =
    "Results saved in MM_test_4.98_25.4_f0_d1000_s10_c5.json"
Elapsed time is 7.448863 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.360787 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
```

```
"Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0110
       idStartTime: 281651
    idDopplerShift: 51
              mean: 2.7628e-10
        meanSquare: 4.7436e-09
             phase: 1.9936
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
```

```
ans =
   "Tracker step 3: demodulated 30 symbols."
ans =
   "Tracker step 4: demodulated 40 symbols."
ans =
   "Tracker step 5: demodulated 50 symbols."
ans =
   "Tracker step 6: demodulated 60 symbols."
ans =
   "Tracker step 7: demodulated 70 symbols."
ans =
   "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111111.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
   "Received message analyzed."
ans =
   "DEMODULATION RESULT 0"
ans =
 struct with fields:
                version: "2"
         ACQUISITION_OK: 1
            TRACKING_OK: 1
         DEMODULATION_OK: 0
                  SV_ID: '000001'
             message_ID: '0011'
           message_body: '010100110001110011001011101110'
                    CRC: '000110111100100011100001'
```

ACKed: 0

isACKmessage: 1

```
estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 82.1007
           estimatedDelay: 0.0282
           estimatedPhase: 1.9936
ans =
    "Results saved in MM_test_5.32_25.4_f0_d1000_s10_c5.json"
Elapsed time is 7.460733 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.355036 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
```

```
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0087
       idStartTime: 281651
    idDopplerShift: 51
              mean: 3.0377e-09
        meanSquare: 3.0024e-09
             phase: 1.9936
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111111.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
```

```
Warning: Error no ack: received CRC 000110111100100011100001 and CRC remainder 000000000000000001000000
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010100110001110011001011101110'
                      CRC: '000110111100100011100001'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 82.1007
           estimatedDelay: 0.0282
           estimatedPhase: 1.9936
ans =
    "Results saved in MM_test_5.65_25.4_f0_d1000_s10_c5.json"
Elapsed time is 7.451576 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.353643 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
```

```
"Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0069
       idStartTime: 281651
    idDopplerShift: 51
              mean: 1.4689e-09
        meanSquare: 1.8998e-09
             phase: 1.9936
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
```

```
"Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111111.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 000110111100100011100001 and CRC remainder 0000000000000000001000000
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010100110001110011001011101110'
                      CRC: '000110111100100011100001'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 82.1007
           estimatedDelay: 0.0282
           estimatedPhase: 1.9936
```

```
"Results saved in MM_test_5.98_25.4_f0_d1000_s10_c5.json"
Elapsed time is 7.476943 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.343009 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
```

```
struct with fields:
         maxPeak: 0.0055
      idStartTime: 281651
   idDopplerShift: 51
            mean: 1.2485e-09
       meanSquare: 1.2018e-09
           phase: 1.9936
ans =
   "Tracker step 1: demodulated 10 symbols."
ans =
   "Tracker step 2: demodulated 20 symbols."
ans =
   "Tracker step 3: demodulated 30 symbols."
ans =
   "Tracker step 4: demodulated 40 symbols."
ans =
   "Tracker step 5: demodulated 50 symbols."
ans =
   "Tracker step 6: demodulated 60 symbols."
ans =
   "Tracker step 7: demodulated 70 symbols."
ans =
   "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111111.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
   "Received message analyzed."
```

```
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010100110001110011001011101110'
                      CRC: '000110111100100011100001'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 82.1007
           estimatedDelay: 0.0282
           estimatedPhase: 1.9936
ans =
    "Results saved in MM_test_6.31_25.4_f0_d1000_s10_c5.json"
Elapsed time is 7.467816 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.345073 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
```

```
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0044
       idStartTime: 281651
    idDopplerShift: 51
              mean: 6.4611e-10
        meanSquare: 7.6060e-10
             phase: 1.9936
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
```

```
"Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error no ack: received CRC 000110111100100100011110 and CRC remainder 000000000000000110111111
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010100110001110011001011101110'
                      CRC: '000110111100100100011110'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 60.1010
      estimatedDopplerEnd: 82.1007
           estimatedDelay: 0.0282
           estimatedPhase: 1.9936
ans =
    "Results saved in MM_test_6.64_25.4_f0_d1000_s10_c5.json"
Elapsed time is 7.461923 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.356437 seconds.
ans =
    "Acquisition search 10.0% completed."
```

```
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0666
       idStartTime: 281652
    idDopplerShift: 52
              mean: 2.8661e-08
        meanSquare: 3.0341e-07
             phase: 1.4505
ans =
    "Tracker step 1: demodulated 10 symbols."
```

```
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111010.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Incorrect received sync 1010011111.
> In MessageAnalyzer/validateAndSplitMessage (line 115)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Not my message, incorrect received SV_ID 111110.
> In MessageAnalyzer/validateAndSplitMessage (line 120)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 001001011100011110011000 and CRC remainder 010011000100110101100010
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
```

```
ans =
  struct with fields:
                  version: "2"
           ACQUISITION OK: 1
              TRACKING OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '111110'
               message_ID: '1100'
             message_body: '101011001110001100001000100110'
                      CRC: '001001011100011110011000'
                    ACKed: 0
             isACKmessage: 0
    estimatedDopplerStart: 80.3030
      estimatedDopplerEnd: 102.3030
           estimatedDelay: 0.0282
           estimatedPhase: 1.4505
ans =
    "Results saved in MM_test_2.32_51_f0_d1000_s10_c5.json"
Elapsed time is 7.449262 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.357351 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
```

```
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0419
       idStartTime: 281652
    idDopplerShift: 52
              mean: 6.8702e-09
        meanSquare: 1.1980e-07
             phase: 1.4505
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
```

```
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111010.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Incorrect received sync 1010011111.
> In MessageAnalyzer/validateAndSplitMessage (line 115)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Not my message, incorrect received SV_ID 111110.
> In MessageAnalyzer/validateAndSplitMessage (line 120)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 001001011100011110011000 and CRC remainder 010011000100110101100010
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '111110'
               message_ID: '1100'
             message_body: '101011001110001100001000100110'
                      CRC: '001001011100011110011000'
                    ACKed: 0
             isACKmessage: 0
    estimatedDopplerStart: 80.3030
      estimatedDopplerEnd: 102.3030
           estimatedDelay: 0.0282
           estimatedPhase: 1.4505
ans =
    "Results saved in MM_test_2.99_51_f0_d1000_s10_c5.json"
```

```
Elapsed time is 7.442882 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.356372 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0265
```

idStartTime: 281652

```
idDopplerShift: 52
              mean: 4.5351e-09
        meanSquare: 4.8002e-08
             phase: 1.4505
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111010.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Incorrect received sync 1010011111.
> In MessageAnalyzer/validateAndSplitMessage (line 115)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Not my message, incorrect received SV_ID 111110.
> In MessageAnalyzer/validateAndSplitMessage (line 120)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 001001011100011110011000 and CRC remainder 010011000100110101100010
> In MessageAnalyzer/analyzeMessage (line 85)
```

```
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '111110'
               message_ID: '1100'
             message_body: '101011001110001100001000100110'
                      CRC: '001001011100011110011000'
                    ACKed: 0
             isACKmessage: 0
    estimatedDopplerStart: 80.3030
      estimatedDopplerEnd: 102.3030
           estimatedDelay: 0.0282
           estimatedPhase: 1.4505
ans =
    "Results saved in MM_test_3.65_51_f0_d1000_s10_c5.json"
Elapsed time is 7.456392 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.364438 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
```

```
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0167
       idStartTime: 281652
    idDopplerShift: 52
              mean: 2.0291e-09
        meanSquare: 1.8956e-08
             phase: 1.4505
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
```

```
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111010.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Incorrect received sync 1010011111.
> In MessageAnalyzer/validateAndSplitMessage (line 115)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Not my message, incorrect received SV_ID 111110.
> In MessageAnalyzer/validateAndSplitMessage (line 120)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 001001011100011110011000 and CRC remainder 010011000100110101100010
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '111110'
               message_ID: '1100'
             message_body: '101011001110001100001000100110'
                      CRC: '001001011100011110011000'
                    ACKed: 0
```

isACKmessage: 0

```
estimatedDopplerStart: 80.3030
      estimatedDopplerEnd: 102.3030
           estimatedDelay: 0.0282
           estimatedPhase: 1.4505
ans =
    "Results saved in MM_test_4.32_51_f0_d1000_s10_c5.json"
Elapsed time is 7.438813 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.358789 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
```

```
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0105
       idStartTime: 281652
    idDopplerShift: 52
              mean: 1.9439e-09
        meanSquare: 7.5919e-09
             phase: 1.4505
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111010.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Incorrect received sync 1010011111.
```

```
> In MessageAnalyzer/validateAndSplitMessage (line 115)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Not my message, incorrect received SV_ID 111110.
> In MessageAnalyzer/validateAndSplitMessage (line 120)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 001001011100011110011000 and CRC remainder 010011000100110101100010
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION OK: 1
              TRACKING_OK: 1
          DEMODULATION OK: 0
                    SV_ID: '111110'
               message_ID: '1100'
             message_body: '101011001110001100001000100110'
                      CRC: '001001011100011110011000'
                    ACKed: 0
             isACKmessage: 0
    estimatedDopplerStart: 80.3030
      estimatedDopplerEnd: 102.3030
           estimatedDelay: 0.0282
           estimatedPhase: 1.4505
ans =
    "Results saved in MM_test_4.98_51_f0_d1000_s10_c5.json"
Elapsed time is 7.468251 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.364417 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
```

```
"Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0083
       idStartTime: 281652
    idDopplerShift: 52
              mean: 4.0330e-09
        meanSquare: 4.7454e-09
             phase: 1.4505
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
```

```
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111010.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Incorrect received sync 1010011111.
> In MessageAnalyzer/validateAndSplitMessage (line 115)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Not my message, incorrect received SV_ID 111110.
> In MessageAnalyzer/validateAndSplitMessage (line 120)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 001001011100011110011000 and CRC remainder 010011000100110101100010
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
```

```
struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '111110'
               message ID: '1100'
             message body: '101011001110001100001000100110'
                      CRC: '001001011100011110011000'
                    ACKed: 0
             isACKmessage: 0
    estimatedDopplerStart: 80.3030
      estimatedDopplerEnd: 102.3030
           estimatedDelay: 0.0282
           estimatedPhase: 1.4505
ans =
    "Results saved in MM_test_5.32_51_f0_d1000_s10_c5.json"
Elapsed time is 7.466491 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.357153 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
```

```
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0066
       idStartTime: 281652
    idDopplerShift: 52
              mean: 1.0166e-09
        meanSquare: 3.0000e-09
             phase: 1.4505
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
```

```
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 111010.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Incorrect received sync 1010011111.
> In MessageAnalyzer/validateAndSplitMessage (line 115)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Not my message, incorrect received SV_ID 111110.
> In MessageAnalyzer/validateAndSplitMessage (line 120)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 001001011100011110011000 and CRC remainder 010011000100110101100010
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '111110'
               message_ID: '1100'
             message_body: '101011001110001100001000100110'
                      CRC: '001001011100011110011000'
                    ACKed: 0
             isACKmessage: 0
    estimatedDopplerStart: 80.3030
      estimatedDopplerEnd: 102.3030
           estimatedDelay: 0.0282
           estimatedPhase: 1.4505
ans =
    "Results saved in MM_test_5.65_51_f0_d1000_s10_c5.json"
Elapsed time is 7.425389 seconds.
ans =
```

```
"Generation test signal completed."
Elapsed time is 0.356240 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0053
       idStartTime: 281652
    idDopplerShift: 52
              mean: 2.5010e-09
        meanSquare: 1.9002e-09
```

phase: 1.4505

ans = "Tracker step 1: demodulated 10 symbols." ans = "Tracker step 2: demodulated 20 symbols." ans = "Tracker step 3: demodulated 30 symbols." ans = "Tracker step 4: demodulated 40 symbols." ans = "Tracker step 5: demodulated 50 symbols." ans = "Tracker step 6: demodulated 60 symbols." ans = "Tracker step 7: demodulated 70 symbols." ans = "Tracker step 8: demodulated 80 symbols." Warning: Error. Incorrect received tail 111010. > In MessageAnalyzer/validateAndSplitMessage (line 110) In MessageAnalyzer/analyzeMessage (line 71) In RECEIVER (line 259) In RECEIVERTest/globalTest (line 109) Warning: Error. Incorrect received sync 1010011111. > In MessageAnalyzer/validateAndSplitMessage (line 115) In MessageAnalyzer/analyzeMessage (line 71) In RECEIVER (line 259) In RECEIVERTest/globalTest (line 109) Warning: Error. Not my message, incorrect received SV_ID 111110. > In MessageAnalyzer/validateAndSplitMessage (line 120) In MessageAnalyzer/analyzeMessage (line 71) In RECEIVER (line 259) In RECEIVERTest/globalTest (line 109) Warning: Error no ack: received CRC 001001011100011110011000 and CRC remainder 010011000100110101100010 > In MessageAnalyzer/analyzeMessage (line 85) In RECEIVER (line 259) In RECEIVERTest/globalTest (line 109) ans =

```
"Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '111110'
               message_ID: '1100'
             message_body: '101011001110001100001000100110'
                      CRC: '001001011100011110011000'
                    ACKed: 0
             isACKmessage: 0
    estimatedDopplerStart: 80.3030
      estimatedDopplerEnd: 102.3030
           estimatedDelay: 0.0282
           estimatedPhase: 1.4505
ans =
    "Results saved in MM_test_5.98_51_f0_d1000_s10_c5.json"
Elapsed time is 7.471371 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.346957 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
```

```
"Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0042
       idStartTime: 281652
    idDopplerShift: 52
              mean: 8.2240e-10
        meanSquare: 1.2011e-09
             phase: 1.4505
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
```

```
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 000101.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Incorrect received sync 1010011111.
> In MessageAnalyzer/validateAndSplitMessage (line 115)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Not my message, incorrect received SV_ID 111110.
> In MessageAnalyzer/validateAndSplitMessage (line 120)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 001001011100011110010111 and CRC remainder 000101011011000111111100
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '111110'
               message_ID: '1100'
             message_body: '101011001110001100001001100110'
                      CRC: '001001011100011110010111'
                    ACKed: 0
             isACKmessage: 0
    estimatedDopplerStart: 80.3030
      estimatedDopplerEnd: 102.3030
           estimatedDelay: 0.0282
```

estimatedPhase: 1.4505

```
ans =
    "Results saved in MM_test_6.31_51_f0_d1000_s10_c5.json"
Elapsed time is 7.464849 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.345618 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
```

```
ans =
  struct with fields:
           maxPeak: 0.0033
       idStartTime: 281652
    idDopplerShift: 52
              mean: 8.7861e-10
        meanSquare: 7.6056e-10
             phase: 1.4505
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 000101.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error. Incorrect received sync 1010011111.
> In MessageAnalyzer/validateAndSplitMessage (line 115)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
```

```
Warning: Error. Not my message, incorrect received SV_ID 111110.
> In MessageAnalyzer/validateAndSplitMessage (line 120)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 001001011100011110010111 and CRC remainder 010011000100110101101101
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '111110'
               message_ID: '1100'
             message body: '101011001110001100001000100110'
                      CRC: '001001011100011110010111'
                    ACKed: 0
             isACKmessage: 0
    estimatedDopplerStart: 80.3030
      estimatedDopplerEnd: 102.3030
           estimatedDelay: 0.0282
           estimatedPhase: 1.4505
ans =
    "Results saved in MM_test_6.64_51_f0_d1000_s10_c5.json"
Elapsed time is 7.467706 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.344360 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
```

```
"Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0766
       idStartTime: 281649
    idDopplerShift: 53
              mean: 5.1916e-08
        meanSquare: 3.0356e-07
             phase: -3.1342
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
```

```
"Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 110110.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 000011011010111011000111 and CRC remainder 011001000100010001001010
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010110110001101110111001000100'
                      CRC: '000011011010111011000111'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 100.5050
      estimatedDopplerEnd: 103.0930
```

ans =

estimatedDelay: 0.0282

estimatedPhase: 3.1490 ans = "Results saved in MM_test_2.32_102.6_f0_d1000_s10_c5.json" Elapsed time is 7.419796 seconds. ans = "Generation test signal completed." Elapsed time is 0.356049 seconds. ans = "Acquisition search 10.0% completed." ans = "Acquisition search 20.0% completed." ans = "Acquisition search 30.0% completed." ans = "Acquisition search 40.0% completed." ans = "Acquisition search 50.0% completed." ans = "Acquisition search 60.0% completed." ans = "Acquisition search 70.0% completed." ans = "Acquisition search 80.0% completed." ans = "Acquisition search 90.0% completed."

```
"Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0481
       idStartTime: 281649
    idDopplerShift: 53
              mean: 1.5275e-08
        meanSquare: 1.1993e-07
             phase: -3.1342
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 110110.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 000011011010111011000111 and CRC remainder 011001000100010001001010
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
```

```
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010110110001101110111001000100'
                      CRC: '000011011010111011000111'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 100.5050
      estimatedDopplerEnd: 103.0930
           estimatedDelay: 0.0282
           estimatedPhase: 3.1490
ans =
    "Results saved in MM_test_2.99_102.6_f0_d1000_s10_c5.json"
Elapsed time is 7.412179 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.370546 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
```

```
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0305
       idStartTime: 281649
    idDopplerShift: 53
              mean: 8.6567e-09
        meanSquare: 4.7988e-08
             phase: -3.1342
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
```

```
"Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 110110.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 000011011010111011000111 and CRC remainder 011001000100010001001010
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010110110001101110111001000100'
                      CRC: '000011011010111011000111'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 100.5050
      estimatedDopplerEnd: 103.0930
           estimatedDelay: 0.0282
           estimatedPhase: 3.1490
ans =
    "Results saved in MM_test_3.65_102.6_f0_d1000_s10_c5.json"
Elapsed time is 7.406756 seconds.
```

```
ans =
    "Generation test signal completed."
Elapsed time is 0.358912 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0191
       idStartTime: 281649
```

```
idDopplerShift: 53
              mean: 4.7177e-09
        meanSquare: 1.8978e-08
             phase: -3.1342
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 110110.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 000011011010111011000111 and CRC remainder 0110010001000100010010
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
```

```
ans =
  struct with fields:
                  version: "2"
           ACQUISITION OK: 1
              TRACKING OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010110110001101110111001000100'
                      CRC: '000011011010111011000111'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 100.5050
      estimatedDopplerEnd: 103.0930
           estimatedDelay: 0.0282
           estimatedPhase: 3.1490
ans =
    "Results saved in MM_test_4.32_102.6_f0_d1000_s10_c5.json"
Elapsed time is 7.435516 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.361688 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
```

```
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0121
       idStartTime: 281649
    idDopplerShift: 53
              mean: 6.5446e-09
        meanSquare: 7.6002e-09
             phase: -3.1342
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
```

```
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 110110.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 00001101101101110111000111 and CRC remainder 011001000100010001001010
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010110110001101110111001000100'
                      CRC: '000011011010111011000111'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 100.5050
      estimatedDopplerEnd: 103.0930
           estimatedDelay: 0.0282
           estimatedPhase: 3.1490
ans =
    "Results saved in MM_test_4.98_102.6_f0_d1000_s10_c5.json"
Elapsed time is 7.455888 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.360054 seconds.
ans =
```

```
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0096
       idStartTime: 281649
    idDopplerShift: 53
              mean: 5.9938e-09
        meanSquare: 4.7435e-09
             phase: -3.1342
ans =
    "Tracker step 1: demodulated 10 symbols."
```

"Acquisition search 10.0% completed."

```
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 110110.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 000011011011011010111 and CRC remainder 011001000100010001001010
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION OK: 1
              TRACKING_OK: 1
```

DEMODULATION_OK: 0

```
SV_ID: '000001'
               message_ID: '0011'
             message_body: '010110110001101110111001000100'
                      CRC: '000011011010111011000111'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 100.5050
      estimatedDopplerEnd: 103.0930
           estimatedDelay: 0.0282
           estimatedPhase: 3.1490
ans =
    "Results saved in MM_test_5.32_102.6_f0_d1000_s10_c5.json"
Elapsed time is 7.408160 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.360645 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
```

```
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0076
       idStartTime: 281649
    idDopplerShift: 53
              mean: 2.7424e-09
        meanSquare: 3.0005e-09
             phase: -3.1342
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
```

```
Warning: Error. Incorrect received tail 001001.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 000011011010111000111000 and CRC remainder 011001000100010010110101
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message body: '010110110001101110111001000100'
                      CRC: '000011011010111000111000'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 100.5050
      estimatedDopplerEnd: 103.0930
           estimatedDelay: 0.0282
           estimatedPhase: 3.1490
ans =
    "Results saved in MM_test_5.65_102.6_f0_d1000_s10_c5.json"
Elapsed time is 7.409419 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.361068 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
```

```
"Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0061
       idStartTime: 281649
    idDopplerShift: 53
              mean: 3.0785e-09
        meanSquare: 1.9001e-09
             phase: -3.1342
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
```

```
"Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 001001.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 111100100101000100111000 and CRC remainder 1011100000011111111011000
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010110110001101110111001000011'
                      CRC: '111100100101000100111000'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 100.5050
      estimatedDopplerEnd: 103.0930
```

ans =

estimatedDelay: 0.0282

estimatedPhase: 3.1490 ans = "Results saved in MM_test_5.98_102.6_f0_d1000_s10_c5.json" Elapsed time is 7.435510 seconds. ans = "Generation test signal completed." Elapsed time is 0.357703 seconds. ans = "Acquisition search 10.0% completed." ans = "Acquisition search 20.0% completed." ans = "Acquisition search 30.0% completed." ans = "Acquisition search 40.0% completed." ans = "Acquisition search 50.0% completed." ans = "Acquisition search 60.0% completed." ans = "Acquisition search 70.0% completed." ans = "Acquisition search 80.0% completed." ans = "Acquisition search 90.0% completed."

```
"Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0048
       idStartTime: 281649
    idDopplerShift: 53
              mean: 1.0529e-09
        meanSquare: 1.2017e-09
             phase: -3.1342
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
    "Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 001001.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 111100100101000100111000 and CRC remainder 1011100000011111111011000
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
```

```
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010110110001101110111001000011'
                      CRC: '111100100101000100111000'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 100.5050
      estimatedDopplerEnd: 103.0930
           estimatedDelay: 0.0282
           estimatedPhase: 3.1490
ans =
    "Results saved in MM_test_6.31_102.6_f0_d1000_s10_c5.json"
Elapsed time is 7.440615 seconds.
ans =
    "Generation test signal completed."
Elapsed time is 0.361538 seconds.
ans =
    "Acquisition search 10.0% completed."
ans =
    "Acquisition search 20.0% completed."
ans =
    "Acquisition search 30.0% completed."
ans =
    "Acquisition search 40.0% completed."
```

```
ans =
    "Acquisition search 50.0% completed."
ans =
    "Acquisition search 60.0% completed."
ans =
    "Acquisition search 70.0% completed."
ans =
    "Acquisition search 80.0% completed."
ans =
    "Acquisition search 90.0% completed."
ans =
    "Acquisition search 100.0% completed."
ans =
  struct with fields:
           maxPeak: 0.0038
       idStartTime: 281649
    idDopplerShift: 53
              mean: 2.0840e-09
        meanSquare: 7.6102e-10
             phase: -3.1342
ans =
    "Tracker step 1: demodulated 10 symbols."
ans =
    "Tracker step 2: demodulated 20 symbols."
ans =
    "Tracker step 3: demodulated 30 symbols."
ans =
    "Tracker step 4: demodulated 40 symbols."
ans =
```

```
"Tracker step 5: demodulated 50 symbols."
ans =
    "Tracker step 6: demodulated 60 symbols."
ans =
    "Tracker step 7: demodulated 70 symbols."
ans =
    "Tracker step 8: demodulated 80 symbols."
Warning: Error. Incorrect received tail 001001.
> In MessageAnalyzer/validateAndSplitMessage (line 110)
In MessageAnalyzer/analyzeMessage (line 71)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
Warning: Error no ack: received CRC 000011011010111000111000 and CRC remainder 011001000100010010110101
> In MessageAnalyzer/analyzeMessage (line 85)
In RECEIVER (line 259)
In RECEIVERTest/globalTest (line 109)
ans =
    "Received message analyzed."
ans =
    "DEMODULATION RESULT 0"
ans =
  struct with fields:
                  version: "2"
           ACQUISITION_OK: 1
              TRACKING_OK: 1
          DEMODULATION_OK: 0
                    SV_ID: '000001'
               message_ID: '0011'
             message_body: '010110110001101110111001000100'
                      CRC: '000011011010111000111000'
                    ACKed: 0
             isACKmessage: 1
    estimatedDopplerStart: 100.5050
      estimatedDopplerEnd: 103.0930
           estimatedDelay: 0.0282
           estimatedPhase: 3.1490
ans =
    "Results saved in MM_test_6.64_102.6_f0_d1000_s10_c5.json"
Elapsed time is 7.437785 seconds.
```

```
Done RECEIVERTest

ans =

1×1200 TestResult array with properties:

Name
Passed
Failed
Incomplete
Duration
Details

Totals:

1200 Passed, 0 Failed, 0 Incomplete.
9463.5507 seconds testing time.

Error using uiimport (line 80)
Cannot open the Import Wizard on a file while the Import Wizard is open.
```