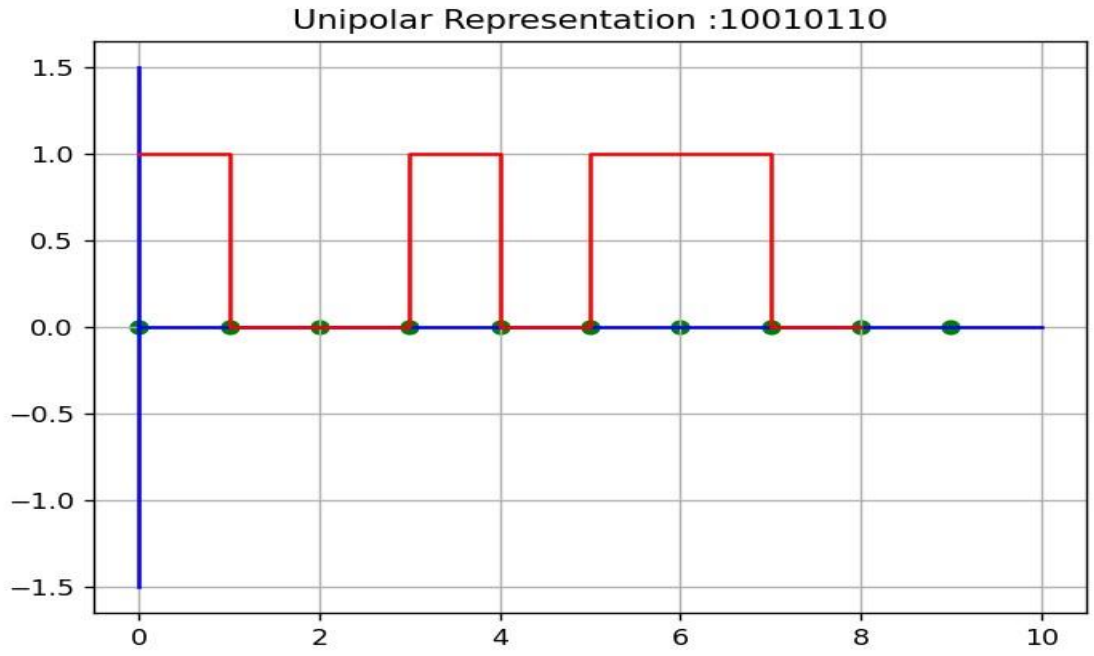
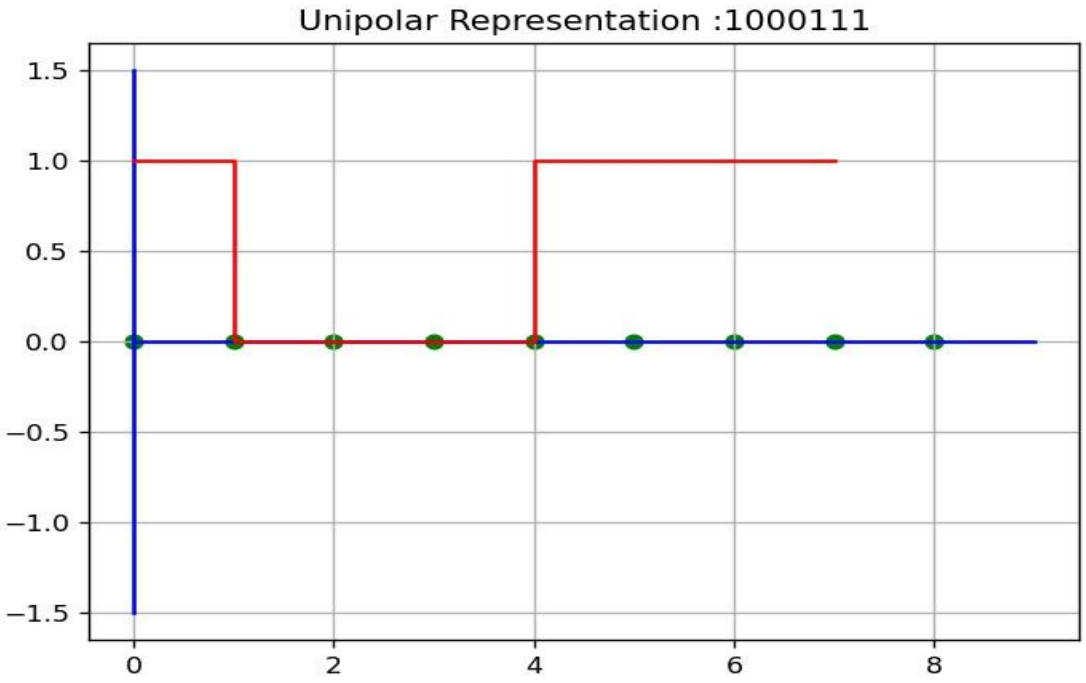
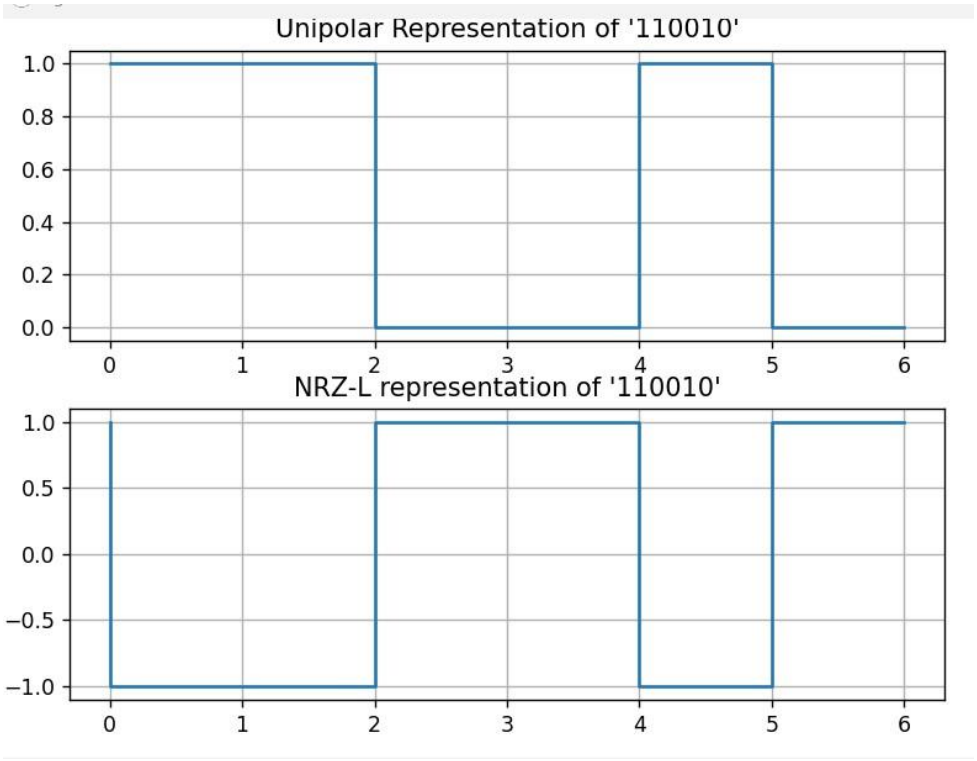
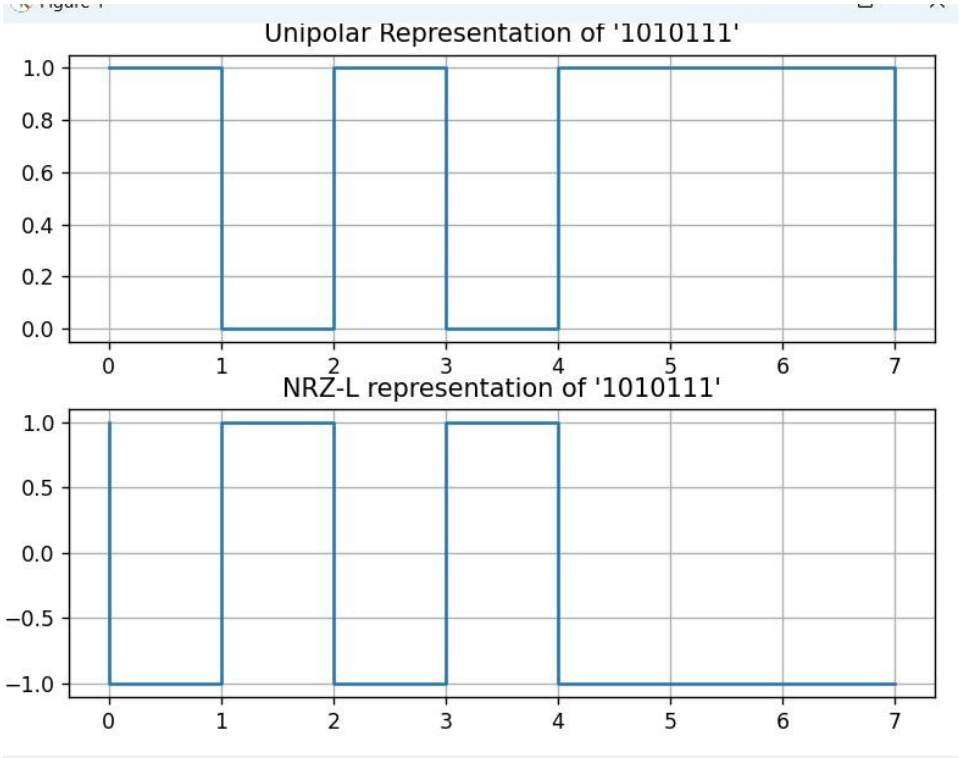
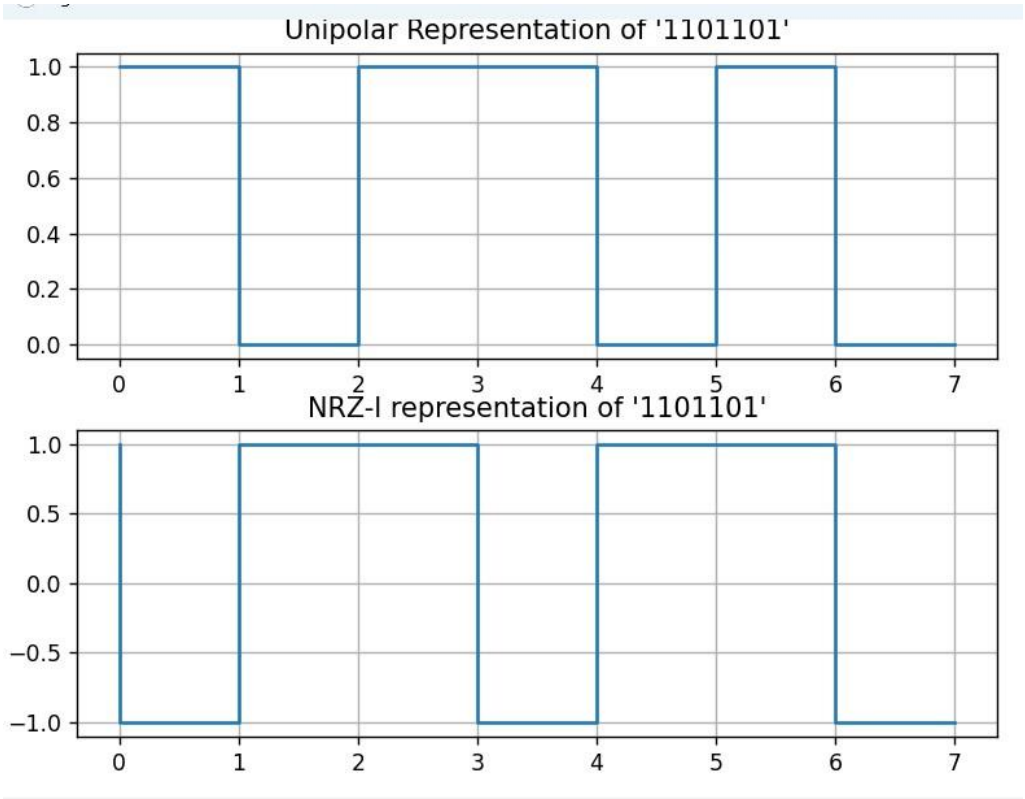
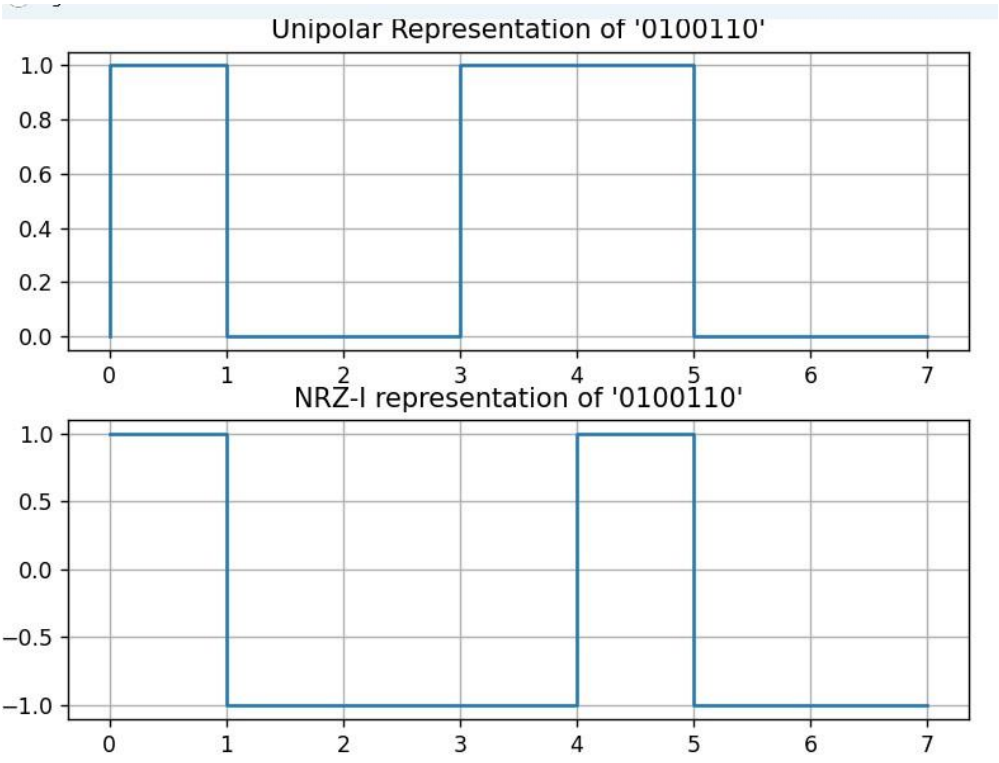

Unipolar Representation :10010110
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
0
2
4
6
8
10

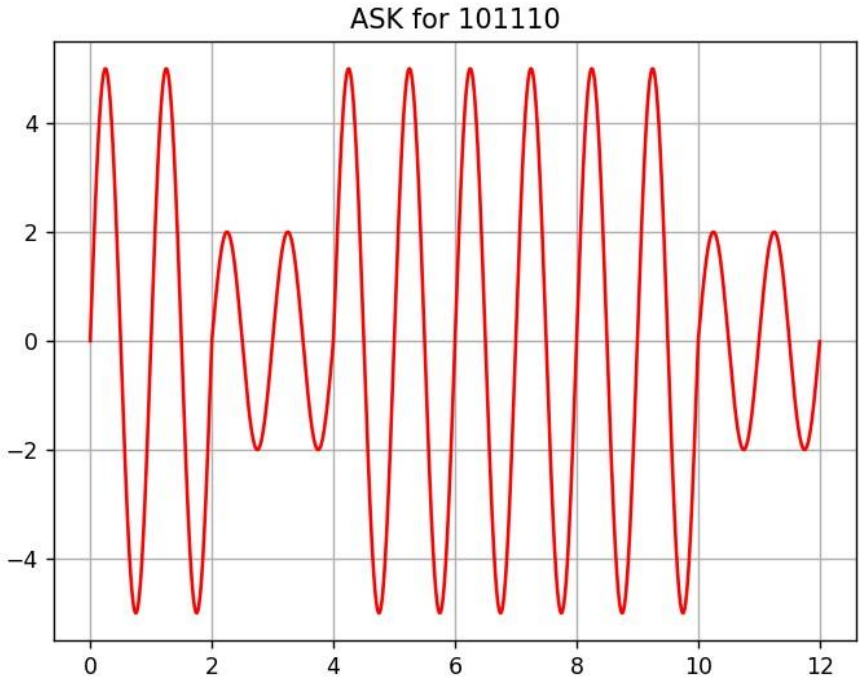

Unipolar Representation :1000111
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
0
2
4
6
8

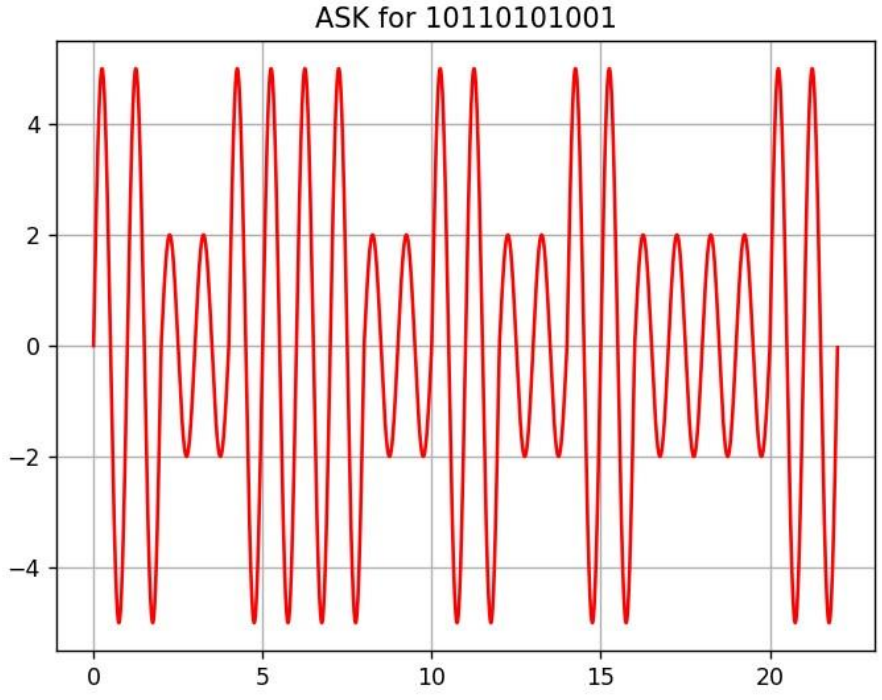

Unipolar Representation of '110010'
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
6
NRZ-L representation of '110010'
1.0
0.5
0.0
−0.5
−1.0
0
1
2
3
4
5
6

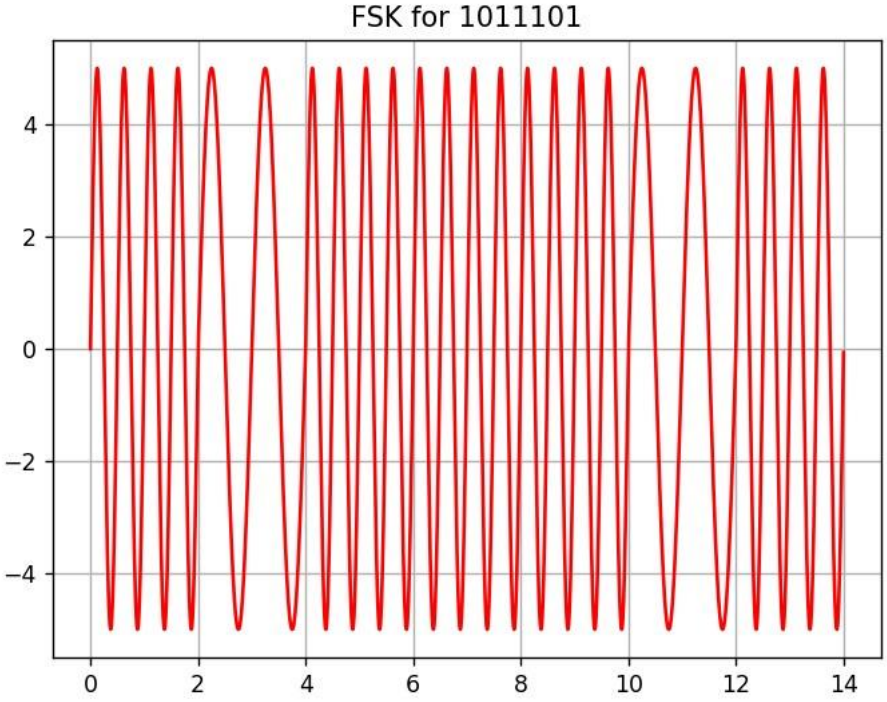

Unipolar Representation of '1010111'
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
6
7
NRZ-L representation of '1010111'
1.0
0.5
0.0
−0.5
−1.0
0
1
2
3
4
5
6
7

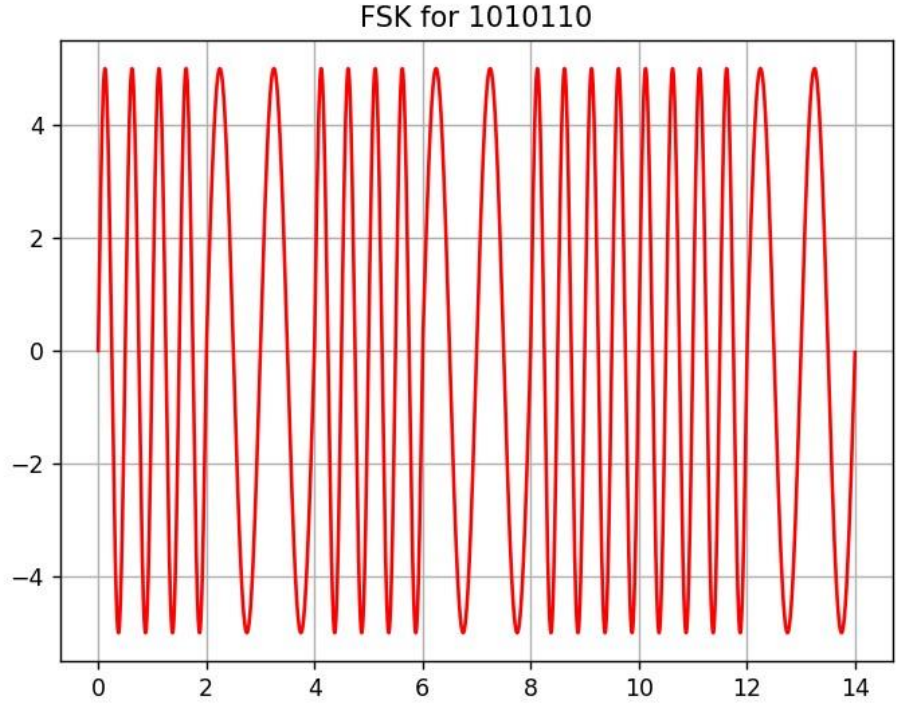

Unipolar Representation of '1101101'
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
6
7
NRZ-I representation of '1101101'
1.0
0.5
0.0
−0.5
−1.0
0
1
2
3
4
5
6
7

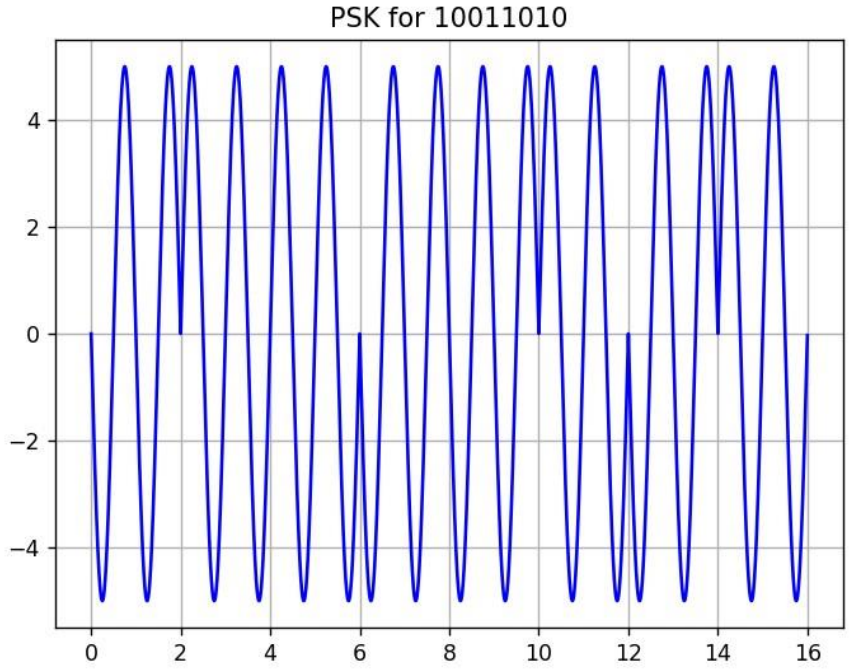

Unipolar Representation of '0100110'
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
6
7
NRZ-I representation of '0100110'
1.0
0.5
0.0
−0.5
−1.0
0
1
2
3
4
5
6
7

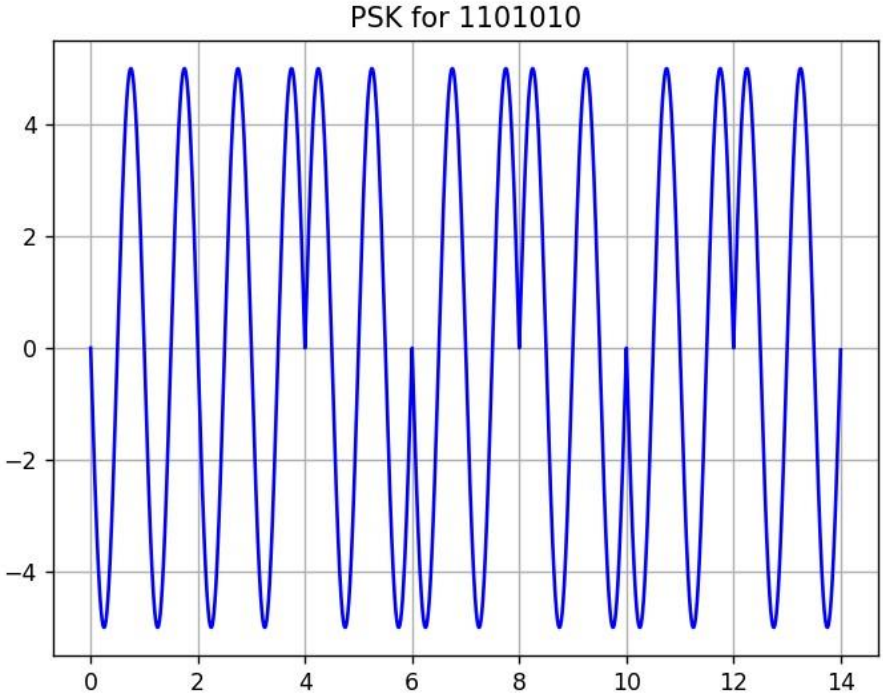

ASK for 101110
4
2
0
−2
−4
0
2
4
6
8
10
12

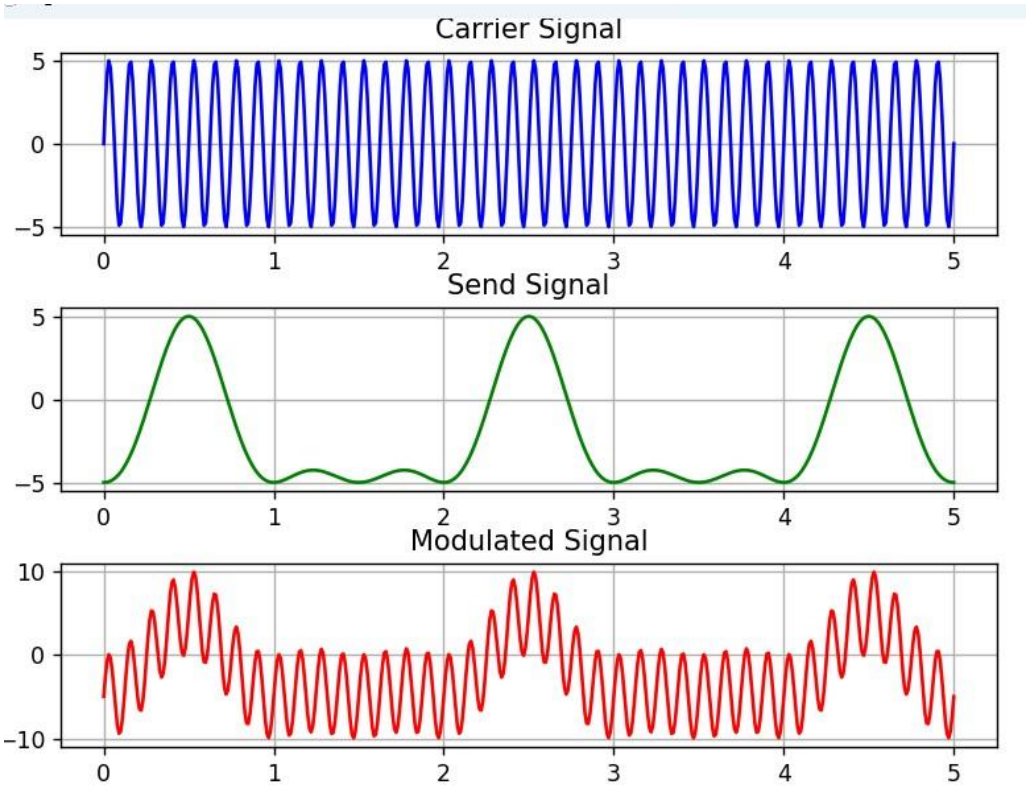

ASK for 10110101001
4
2
0
−2
−4
0
5
10
15
20

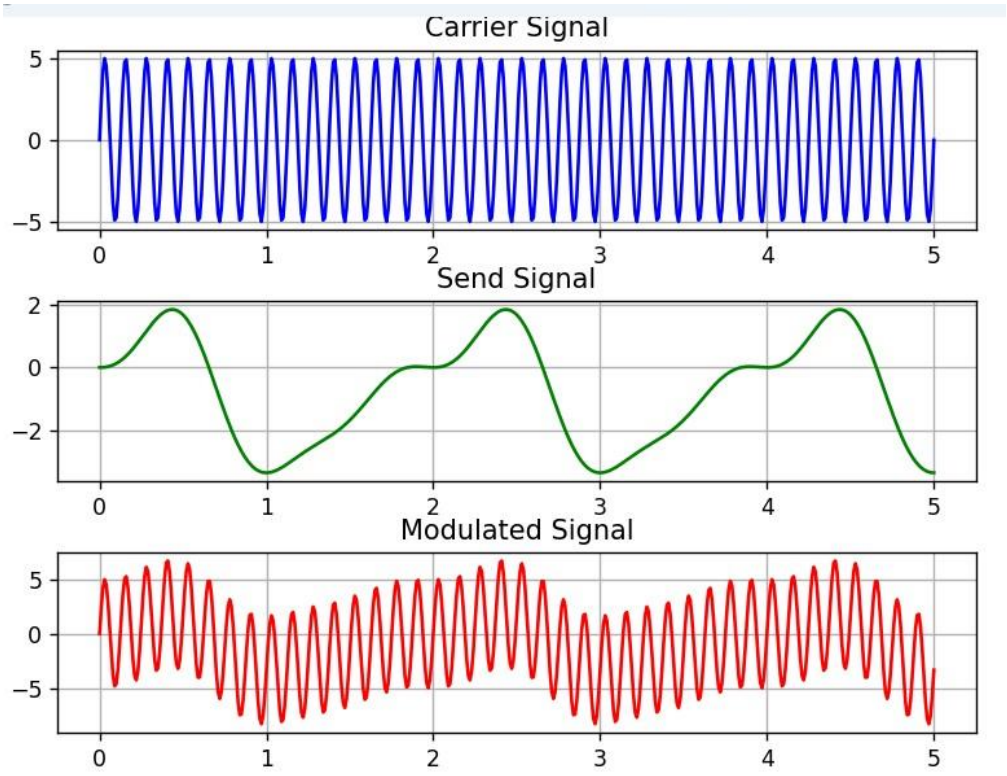

FSK for 1011101
4
2
0
−2
−4
0
2
4
6
8
10
12
14

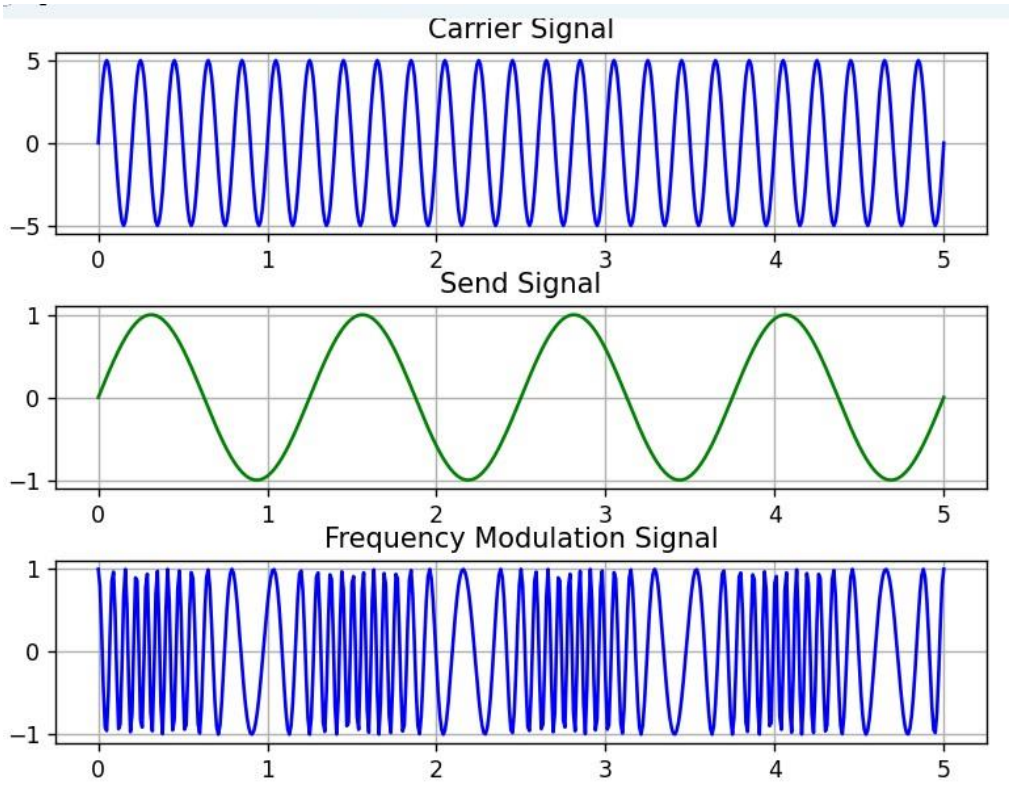

FSK for 1010110
4
2
0
−2
−4
0
2
4
6
8
10
12
14

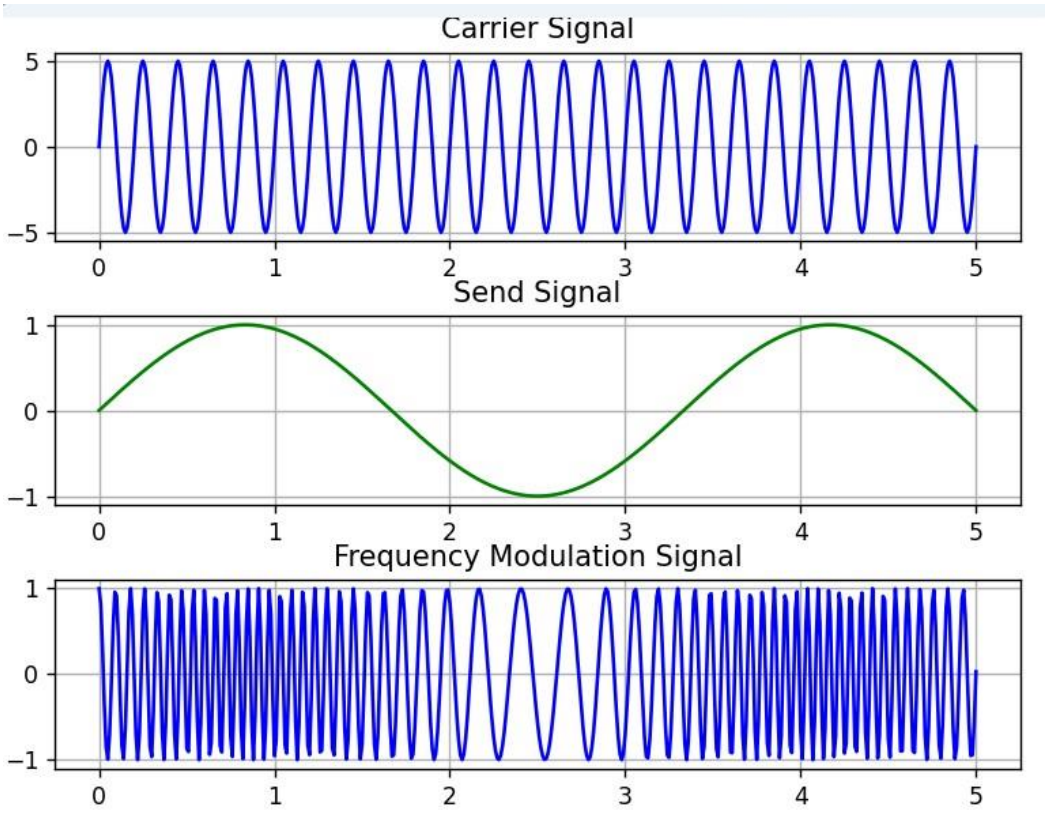

PSK for 10011010
4
2
0
−2
−4
0
2
4
6
8
10
12
14
16

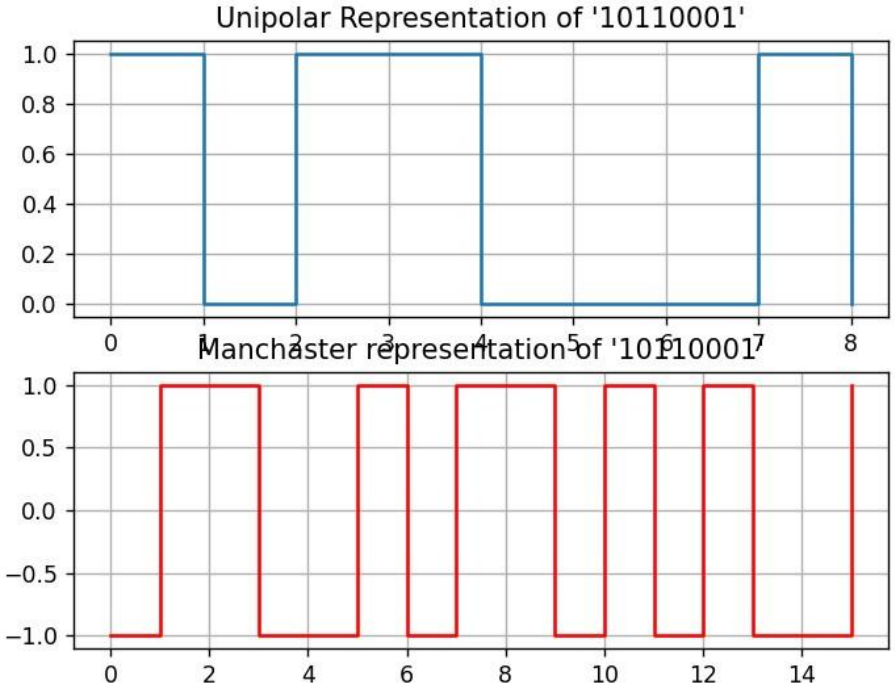

PSK for 1101010
4
2
0
−2
−4
0
2
4
6
8
10
12
14

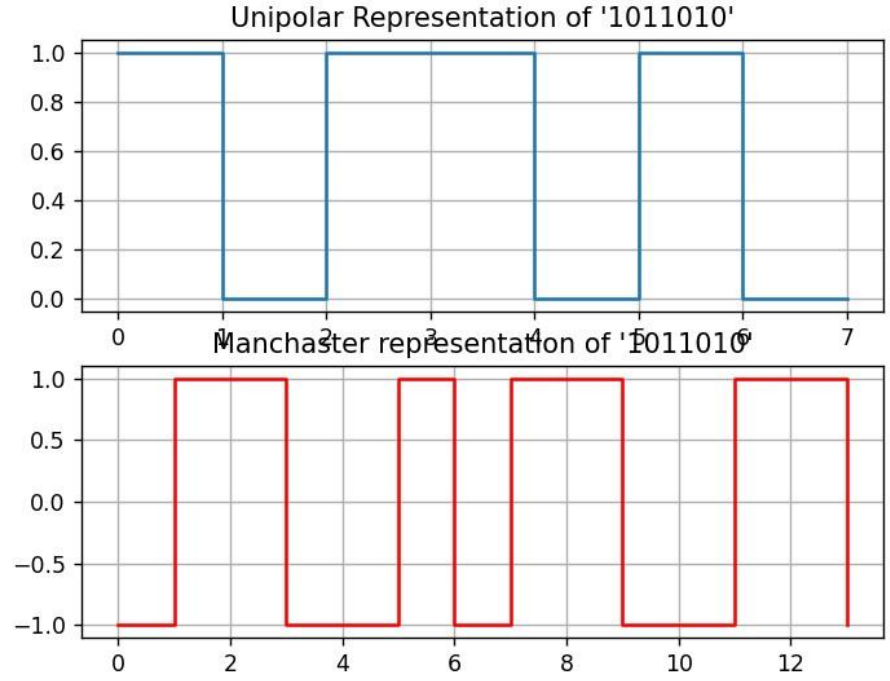

Carrier Signal
Send Signal
Modulated Signal

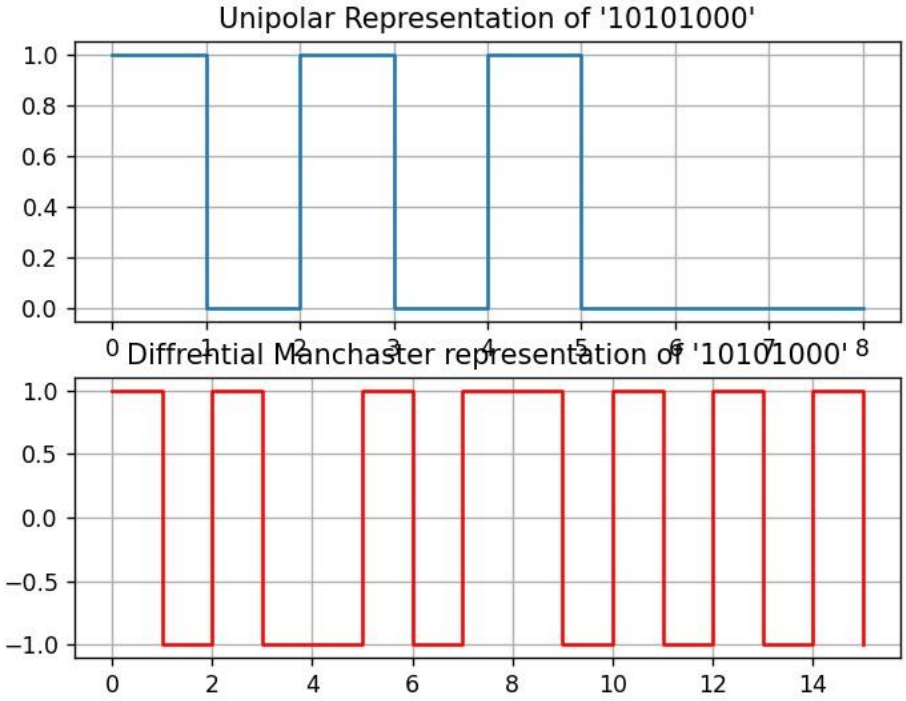

Carrier Signal
Send Signal
Modulated Signal

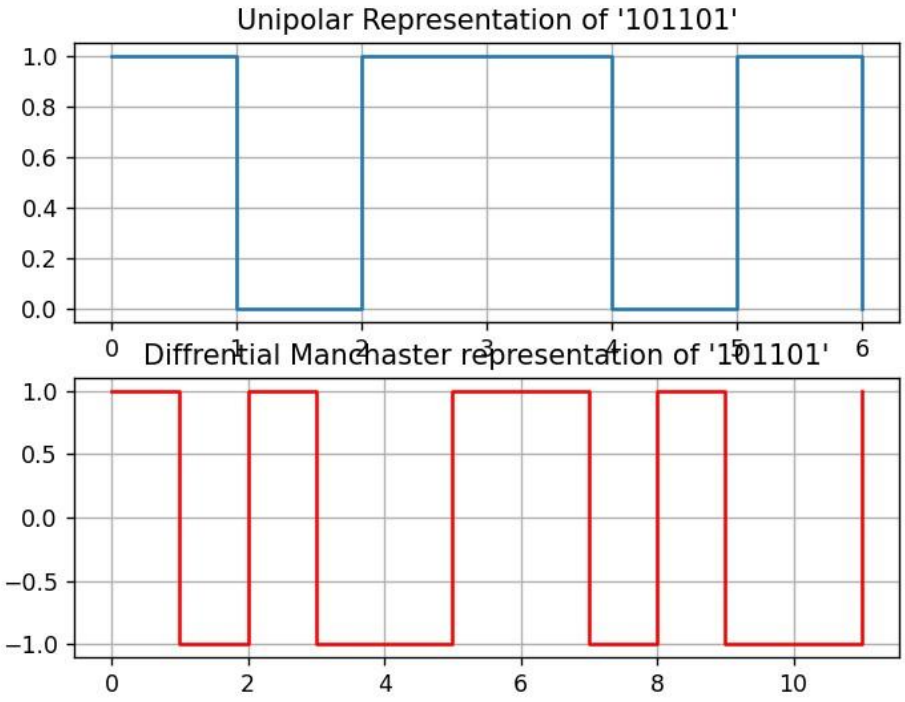

Carrier Signal
Send Signal
Frequency Modulation Signal

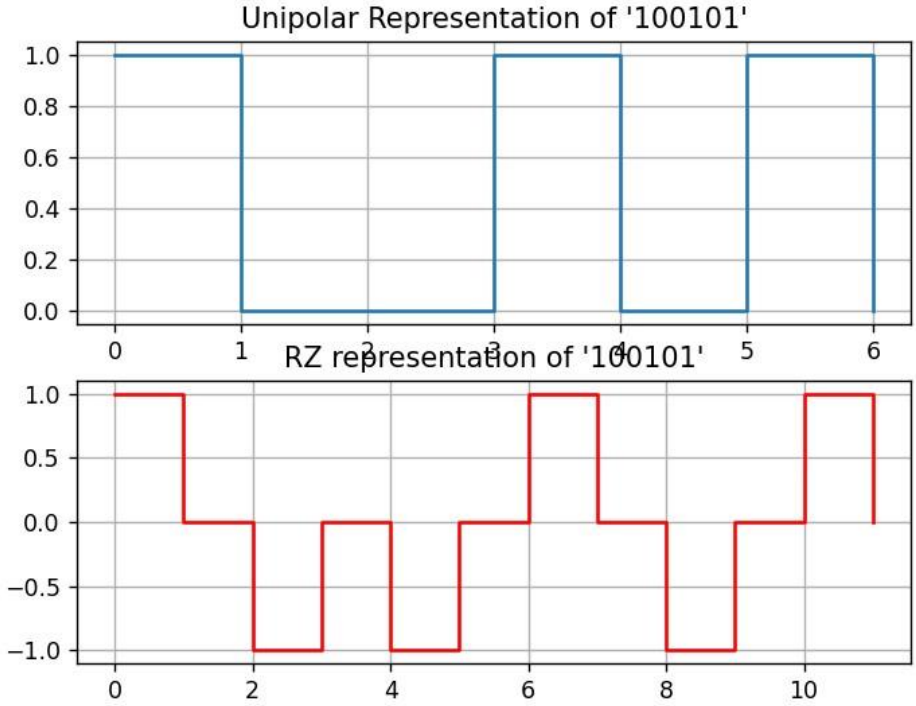

Carrier Signal
Send Signal
Frequency Modulation Signal

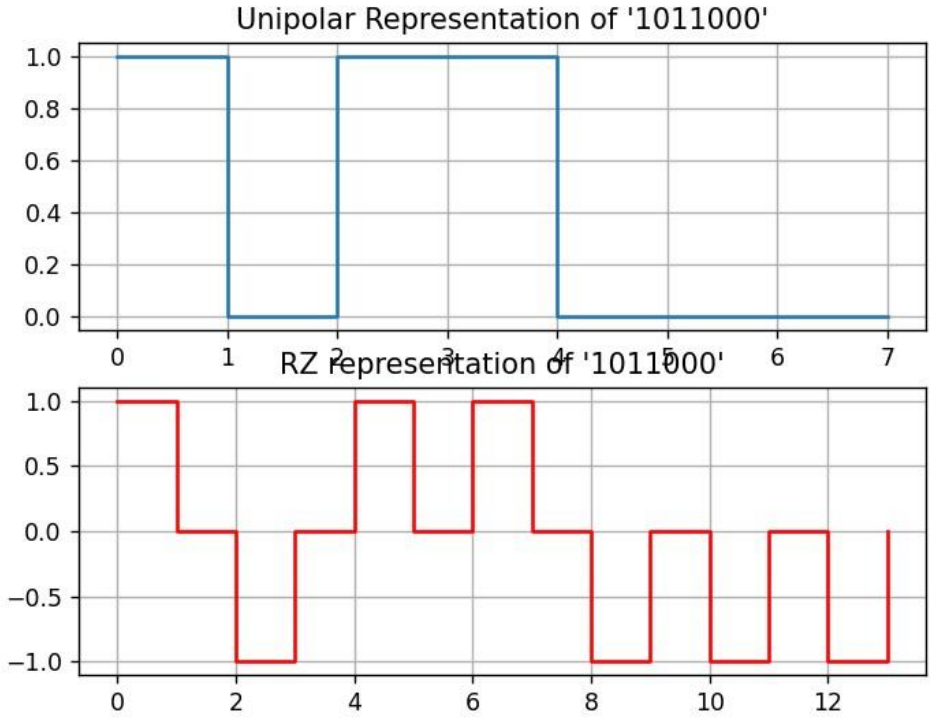

Unipolar Representation of '10110001'
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
6
7
8
Manchaster representation of '10110001'
1.0
0.5
0.0
−0.5
−1.0
0
2
4
6
8
10
12
14


Unipolar Representation of '1011010'
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
6
7
Manchaster representation of '1011010'
1.0
0.5
0.0
−0.5
−1.0
0
2
4
6
8
10
12


Unipolar Representation of '10101000'
Diffrential Manchaster representation of '10101000'


Unipolar Representation of '101101'
Diffrential Manchaster representation of '101101'


Unipolar Representation of '100101'
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
6
RZ representation of '100101'
1.0
0.5
0.0
−0.5
−1.0
0
2
4
6
8
10


Unipolar Representation of '1011000'
1.0
0.8
0.6
0.4
0.2
0.0
0
1
2
3
4
5
6
7
RZ representation of '1011000'
1.0
0.5
0.0
−0.5
−1.0
0
2
4
6
8
10
12

```
Enter Message signal : 1011001
-> Message len :  7  -> Redundant len :  4  -> Total len :  11
1 is a power of 2.
2 is a power of 2.
4 is a power of 2.
8 is a power of 2.
Mid Message is :  [0, 0, 1, 0, 0, 1, 1, 0, 0, 0, 1]
1 is a power of 2.
1 0 th parity is added :  0
3 1 th parity is added :  1
5 0 th parity is added :  1
7 1 th parity is added :  2
9 0 th parity is added :  2
11 1 th parity is added :  3
1 Redundant parity is :  3  hamming :  1
2 is a power of 2.
2 0 th parity is added :  0
3 1 th parity is added :  1
6 1 th parity is added :  2
7 1 th parity is added :  3
10 0 th parity is added :  3
11 1 th parity is added :  4
2 Redundant parity is :  4  hamming :  0
4 is a power of 2.
4 0 th parity is added :  0
5 0 th parity is added :  0
6 1 th parity is added :  1
7 1 th parity is added :  2
4 Redundant parity is :  2  hamming :  0
8 is a power of 2.
8 0 th parity is added :  0
9 0 th parity is added :  0
10 0 th parity is added :  0
11 1 th parity is added :  1
8 Redundant parity is :  1  hamming :  1
--------Hamming code is --------
[1, 0, 1, 0, 0, 1, 1, 1, 0, 0, 1]
```

```
Enter Message signal : 10100110001
1 is a power of 2.
1 1 th parity is added :  1
3 1 th parity is added :  2
5 0 th parity is added :  2
7 1 th parity is added :  3
9 0 th parity is added :  3
11 1 th parity is added :  4
1 Redundant parity is :  4  hamming :  0
2 is a power of 2.
2 0 th parity is added :  0
3 1 th parity is added :  1
6 1 th parity is added :  2
7 1 th parity is added :  3
10 0 th parity is added :  3
11 1 th parity is added :  4
2 Redundant parity is :  4  hamming :  0
4 is a power of 2.
4 0 th parity is added :  0
5 0 th parity is added :  0
6 1 th parity is added :  1
7 1 th parity is added :  2
4 Redundant parity is :  2  hamming :  0
8 is a power of 2.
8 0 th parity is added :  0
9 0 th parity is added :  0
10 0 th parity is added :  0
11 1 th parity is added :  1
8 Redundant parity is :  1  hamming :  1
--------Missmatch code is --------
[0, 0, 0, 1]
```

```
Enter Message signal : 10101111001
1 is a power of 2.
1 1 th parity is added :  1
3 1 th parity is added :  2
5 1 th parity is added :  3
7 1 th parity is added :  4
9 0 th parity is added :  4
11 1 th parity is added :  5
1 Redundant parity is :  5  hamming :  1
2 is a power of 2.
2 0 th parity is added :  0
3 1 th parity is added :  1
6 1 th parity is added :  2
7 1 th parity is added :  3
10 0 th parity is added :  3
11 1 th parity is added :  4
2 Redundant parity is :  4  hamming :  0
4 is a power of 2.
4 0 th parity is added :  0
5 1 th parity is added :  1
6 1 th parity is added :  2
7 1 th parity is added :  3
4 Redundant parity is :  3  hamming :  1
8 is a power of 2.
8 1 th parity is added :  1
9 0 th parity is added :  1
10 0 th parity is added :  1
11 1 th parity is added :  2
8 Redundant parity is :  2  hamming :  0
--------Missmatch code is --------
[1, 0, 1, 0]
```