

波形配置项:

sensorStop

flushCfg

dfeDataOutputMode

channelCfg

adcCfg

adcbufCfg

profileCfg

chirpCfg

frameCfg

lowPower

sensorStart

活体检测和占位检测波形示意图如图 1 所示。活体检测采用 1T4R，占位检测采用 3T4R(时分复用的方式)

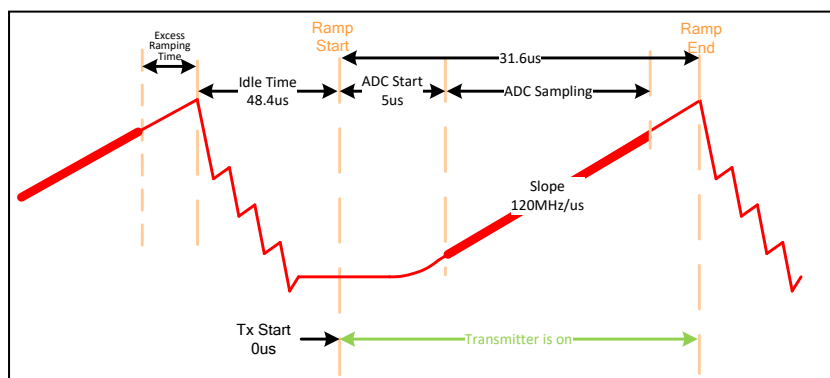


图 1 波形示意图



波形配置 1: (活体检测)

```
sensorStop
flushCfg
dfeDataOutputMode 1
channelCfg 15 1 0
adcCfg 2 1
adcbufCfg -1 0 0 1 1
profileCfg 0 60 48.4 5 31.6 0 0 120 0 128 5000 0 0 40
chirpCfg 0 0 0 0 0 0 1
frameCfg 0 0 1 0 50 1 0
lowPower 0 1
sensorStart
```

Key Parameters:

1. Start Freq: 60GHz
2. Sweep Band Width= $120 \times 31.6 = 3792\text{MHz} = 3.792\text{GHz} < 4\text{GHz}$
3. Frequency Slope: 120MHz/us
4. ADC Samples: 128
5. ADC Sample Rates: 5M
6. ADC Sampling Duration= $128 / 5000000 \times 1000000 = 25.6\mu\text{s} < (31.5 - 5) = 25.6\mu\text{s}$
7. No. of Chirps per Frame: 1
8. Frame cycle: 50ms

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波形配置 2: (占位检测)

```
sensorStop
flushCfg
dfeDataOutputMode 1
channelCfg 15 7 0
adcCfg 2 1
adcbufCfg -1 0 0 1 1
profileCfg 0 60 48.4 5 31.6 0 0 120 0 128 5000 0 0 40
chirpCfg 0 0 0 0 0 0 1
chirpCfg 1 1 0 0 0 0 2
chirpCfg 2 2 0 0 0 0 4
frameCfg 0 2 128 0 50 1 0
lowPower 0 1
sensorStart
```

Key Parameters:

6. Start Freq: 60GHz
7. Sweep Band Width= $120 \times 31.6 = 3792\text{MHz} = 3.792\text{GHz} < 4\text{GHz}$
8. Frequency Slope: 120MHz/us
9. ADC Samples: 128
10. ADC Sample Rates: 5M
6. ADC Sampling Duration= $128 / 5000000 \times 1000000 = 25.6\mu\text{s} < (31.5 - 5) = 25.6\mu\text{s}$
7. No. of Chirps per Frame: 128
8. Frame cycle: 50ms

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