



```
classDiagram
    class Wave {
        +_samples: vector<unsigned short>
        +_sample_rate: int
        +_number_of_channels: short
        +_file_name: string
        +Wave() constructor
        +copy() Wave
        +reverseWave() Wave
        +delayWave(int seconds) Wave
        +echoWave(int times) Wave
        +toChap(Wave wav) Wave
        +lunarQuanChao(Wave wav) constructor
        +setSampleRate(int Hz): void
        +setChannel(int numberOfChannel): void
        +play(): void
        +getDurationInSeconds(): int
        +getChannel(): int
        +getSampleCount() unsigned long long
        +getSample() vector<unsigned short>
        +loadFromFile(string fileName): void
        +getSource() string
        +getSampleRate(): int
        +saveToFile(string fileName): void
        +toLowVector<unsigned short> array: vector<double>
        +toHighVector<double> array: vector<unsigned short>
    }
```

