## PreFilter RecBuf - curSample : int\* - storage : int[] - lpCoef : int[][] - size · uint - lpMem : int[] - setIndex · int - hpCoef : int[][] - getIndex: int - hpMem : int[] - recIndex : int - dsSample : uint - analyzePtr : Analyzer\* - dsCount : uint + RecBuf(uint, Analyzer\*) - recButPtr : RecBuf\* + set(int): void + init(int, int, int, int\*): void + get(uint): int - initLP(int freq) : void + unlock(): void - initHP(int freq): void - initDown(int factor) : void + sampleRdv(): void - lowpass(int): int Analyzer - downsample(): bool - highpass(int): int - recBufPtr : RecBuf\* - catPtr : Categorizer\* - freaSpec: int[] - tpr: int - smoothMem: int[] - splThresh: int - startIndex : uint - recSize: uint + analyze(uint, uint): void - calcSPL(): int - calcFFT(): void - calcTPR(): void - gain2dB(): void - smooth(): void

## Categorizer

- \_\_\_\_
- freqSpecPtr: int\*- freqSpecSize: int
- tpr: int
- $\hbox{-} \, statPtr: Statistician*$
- broadFreqLow: uintbroadFreqHigh: uint
- dBroadThreshHighBC1: uint8
- dBroadThreshLowBC2: uint8
- dBroadThreshHighBC2: uint8
- firstPeakFreqBC1: uint
- secondPeakFreqBC1: uintfreqMargin: uint
- + Categorizer(Statistician\*, uint, uint,
- uint8, uint8, uint8) : void
- + categorize(int\*, uint , int) : void checkBC1(): bool
- checkBC2(): bool

## Statistician

- twcPtr : TwoWireCom\*
- FIFO : uint8[]
- + calcSignificans(uint8) : void

## TwoWireCom

- bc: int
- + send(int): void