1) SNR is $10 \log_{10} \frac{\text{Signal power}}{\text{Noise power}}$

Power is the squared linear magnitude integrated over all frequencies. This is called Parseval theorem.

Parseval theorem is defined for the linear magnitudes and the linear frequency axis.

2) no, for evaluating the time domain signal, the phases of the spectogram must be estimated (by the RTISI algorithm) By guessing the phases, the time domain signal can no longer be compared sample by sample, because phases contain the information of the position of all waves inside a block of the spectogram.