

## Noise reduction system

To meet the frequency bandwidth requirement specified in radio regulation, the wireless audio modules use a compressor in the transmitter and an expander in the receiver. This method is known as 'compandor noise reduction system' (See figure 1).

With a Dolby system, which is widely known as a noise reduction system, a compression ratio will vary in accordance with the frequency change of an audio signal. On the other hand, with a compandor noise reduction system, the whole frequency range will be compressed to half at a ratio of 2:1 by a compressor and then, in an exactly opposite way, expanded double at a 1:2 ratio by an expander.

### Compander process

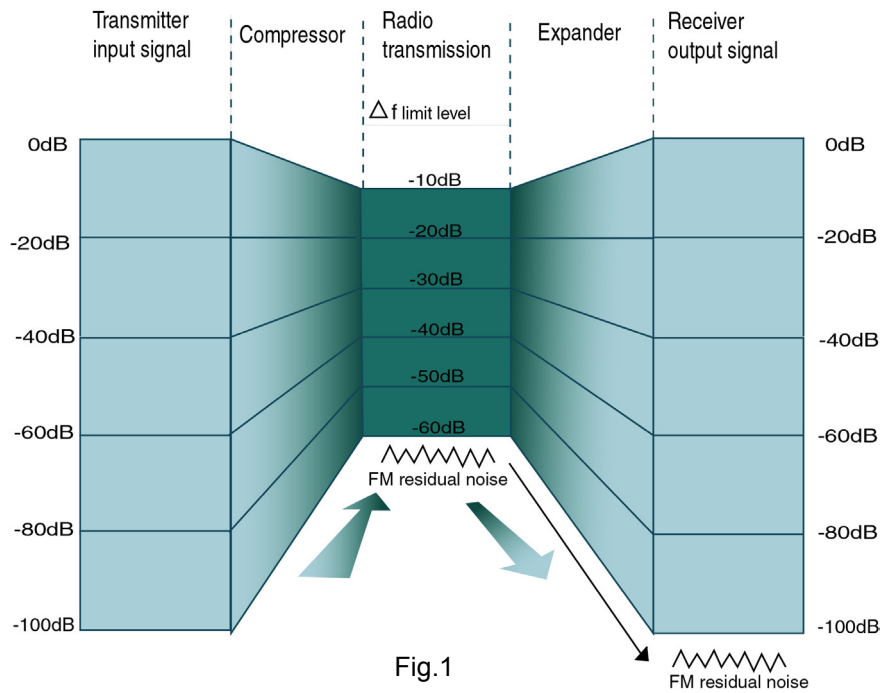


Fig.1

### Compander transmission characteristics

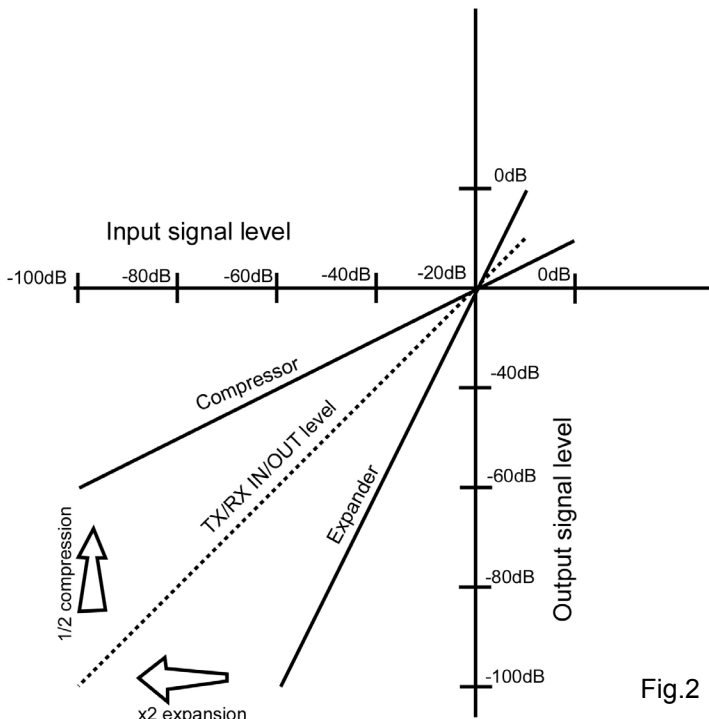


Fig.2

### Noise reduction effect

100dB of dynamic range becomes 50dB by being compressed at a ratio of 2:1 (See figure 2).