

bhi DSP Noise Cancelling Technology

The DSP technology used on most of bhi's noise cancelling products is specific to noise cancelling only. The noise cancelling system operates in the frequency domain and recognises human speech. The typical range of human voice modulation is around 0.6 to 6Hz. The pass-band of the DSP technology is subdivided into sub-bands, and the system works out whether the signal has speech or noise characteristics in the sub-band. If the signal has noise characteristics, the noise portion is removed from this sub-band. The speech then passes through with the noise removed (depending on the filter level setting). If no noise is present the speech remains unchanged (try it with a clear FM signal). A technique called "spectral diffusion" is used to avoid the phenomenon of "musical tones" that you often find with other DSP technologies for most filter settings. There is almost no distortion of speech signals, even for very low signal-to-noise ratios of 0 dB. The bhi DSP technology is self-adapting to a changing noise environment, and no training of the noise filter is required. Customers can adjust the DSP filter level to suit their own needs and application. When doing this, it does not change the characteristics of the noise, that is, any residual noise still sounds natural.

