BANDWIDTH EXTENSION METHOD, BANDWIDTH EXTENSION APPARATUS, PROGRAM, INTEGRATED CIRCUIT, AND AUDIO DECODING APPARATUS

[ABSTRACT]

To provide a bandwidth extension method which allows reduction of computation amount in bandwidth extension and suppression of deterioration of quality in the bandwidth to be extended. In the bandwidth extension method: a low frequency bandwidth signal is transformed into a QMF domain to generate a first low frequency QMF spectrum (S11); pitch-shifted signals are generated by applying different shifting factors on the low frequency bandwidth signal (S12); a high frequency QMF spectrum is generated by time-stretching the pitch-shifted signals in the QMF domain (S13); the high frequency QMF spectrum is modified (S14); and the modified high frequency QMF spectrum is combined with the first low frequency QMF spectrum (S15).

Figure 6