20Hz-80Hz
LOW BASS First and Second Octaves
These are frequencies associated with power, boom, and fullness. The lowest notes of the piano, organ, tuba, and bass are in this range, as are the low frequencies of traffic and thunder. Sounds in these octaves need not occur often to maintain a sense of fullness. If they occur too often, the sound can become thick or muddy.

80Hz-320Hz
UPPER BASS Third and Fourth Octaves
Too many frequencies from this range make sound too boomy; too few make it thin. Pitches in this range are perceived as anchoring sounds.

320Hz-2,560Hz
MIDRANGE Fifth, Sixth, and Seventh Octaves
The midrange gives sound its intensity. Too much emphasis of these frequencies is heard as a horn-like quality.

2,560Hz-5,120Hz
UPPER MIDRANGE Eighth Octave
Frequencies in this range improve the intelligibility of speech. These frequencies are roughly 3,000Hz to 3,500Hz. If these are unduly emphasized, however, sound becomes abrasive and unpleasant; and speech, in particular becomes harsh and lispy.
The upper part of the eighth octave (above 3,500Hz) contains rich pitches that give sound definition.

5,120Hz-20,000Hz
TREBLE Ninth and Tenth Octave
Although human hearing does not extend much beyond 16,000Hz, tones in this range give sound vital, lifelike qualities of brilliance and sparkle.