



- 1.) Testing shows that IBOC shows a "profound" improvement in multipath rejection
- 2.) In NRSC ticker testing, testers found nearly 1/5 as many audio impairments for HD than for analog over the same path.
- 3.) NRSC Laboratory tests showed that IBOC was significantly more robust than analog in the presence of a co-channel interferer and IBOC could handle a significant amount of impulse noise that would impair FM Analog.
- 4.) IBOC performed better than the Analog host station in the presence of a single hybrid first-adjacent interferer and IBOC was "extremely more robust" with regard to single or dual 2nd adjacent hybrid interferers.
- 5.) IBOC receivers will exhibit full stereo under conditions when most analog receivers have blended to monaural.
- 6.) AM IBOC sounds significantly better than analog
- 7.) IBOC has additional data capacity – minimum 3-4 kbps, up to 35-36 kbps when the main channel audio bit rate was reduced from 94 kbps to 64 kbps.
- 8.) IBOC offers the possibility of OFDM synchronization, which could allow IBOC boosters or single frequency networks.
- 9.) IBOC brings the opportunity of Multicasting (Not part of NRSC Study) – the most likely combination is where the main channel is reduced to 64 or 48 kbps and the second channel HD2 runs 28 kbps or 48 kbps. There are now HD3 stations broadcasting.
- 10.) NRSC study concludes that IBOC has similar coverage to Analog.

Minimum Signal Level for Receiving FM IBOC

- USA-Digital 45 dBu (edge at 40-35 dBu)
- iBiquity Tests/ NRSC, 45-50 dBu
- NPR Early Testing ~ 65 dBu
- NPR Later Testing ~ 50-75 dBu

So, as we have shown, the USA-Digital Blending point was defined at 45 dBu; with the edge between 30 and 35 dBu. This test was based on one station, WETA-FM.

In 2001 iBiquity field tested 8 FM stations and concluded that "In all cases digital coverage extended to 45-50 dBu."

iBiquity currently recommends the 55 dBu signal contour.

NPR, working with Hammett and Edison, defined the HD coverage at the ~66 dBu.

This year, after measuring some 26 stations NPR showed the blend threshold to be variable from ~ 50 to 75 dBu