

DESIGN NOTES

Reader Feedback about PA Feedback

In the last issue, we published a request for information on negative feedback in power amplifiers. In addition to forwarding the comments we received to the requester, we'll share them with everyone.

Gary,

Have Mike take a look at *Solid State Design* by W. Hayward and D. DeMaw, ARRL 1977, pp 188-190.

This is for bipolar amps with transformer output and resistive feedback, with graphs and instructions to make some sense of the trade-offs.

I do not have a reference handy for the Norton loss-less feedback amplifiers.

Tom Munson (WF7LMZ)
Peoria, AZ

Gary,

Here are some references from my library regarding negative feedback and related circuit design. Several specifically address low frequency design, but the principles and methods are applicable to RF design as well.

Dave Bowker (K1FK)
Fort Kent, ME

1. Langford-Smith, *Radiotron Designer's Handbook*, 4th edition, 1953, chapter 7, Negative Feedback, www.tubebooks.org/Books/RDH4.pdf

2. "Harmonic Distortion and Negative Feedback in Audio-Frequency Amplifiers," BBC Engineering Training Dept., 1950. www.tubebooks.org/Books/bbc_feedback.pdf

3. Pappenfus, Bruene, Schoenike, *Single Sideband Principals and Circuits*, McGraw-Hill, 1964, Chapter 13, Distortion Reduction. Available from most libraries participating in inter-library loan service.

4. Landee, Davis, Albrecht, *Electronic Designers Handbook*, McGraw-Hill, 1957, Chapter 18, Principals of Feedback. Available from most public and institutional libraries participating in inter-library loan service.

5. Editors & Engineers, *The Radio Handbook*, most editions after 15th edition have a chapter or sections devoted to RF Feedback; www.tubebooks.org/Books/orr_radio.pdf

6. Gray, Graham, *Radio Transmitters*, McGraw-Hill, 1961, Chapter 6, Section 6-12, Negative Feedback; www.tubebooks.org/Books/radtrns.pdf

7. *Reference Data for Radio Engineers*, 3rd edition, Federal Telephone and Radio Corp, 1949, Chapter 5, Fundamentals of Networks: Chapter 13. 4th edition at www.tubebooks.org/Books/itt_ref_4.pdf

8. Krauss, Bostian, Raab, *Solid State Radio Engineering*, John Wiley & Sons, 1980, Chapter 12. Available from most libraries participating in inter-library loan service.

9. Seely, *Electron-Tube Circuits*, McGraw-Hill, 1958, Chapter 5, Feedback in Amplifiers; www.tubebooks.org/Books/seely.pdf

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