

SDR - Station of the Future

[RSGB Convention lecture 2017 - SDR: The station of the future](#)

Software Defined Radio is not new but improvements in design and cost reductions mean that it is rapidly becoming mainstream technology for discerning radio amateurs. SDR is as much a disruptive technology as were the advent of semiconductors or synthesizers. It is said that in five years it will no longer be possible to buy a new radio that is not SDR. We look at what SDR offers us as radio amateurs and what our stations might look like in a few years' time.

<https://www.youtube.com/watch?v=5-hGJbGNZRs>

More Info

- ▶ Sherwood Engineering Site
 - Rob Sherwood NC0B
 - Rates Receiver performance by Narrow Spaced Dynamic Range
 - Simply put: ability to handle strong QRM nearby
 - Important for Serious HF Contesting
 - His recommendation: at least 80dB for SSB, 90dB for CW
 - Most radios 1970-2000 did not meet these numbers
 - Most radios available for sale today do
 - <http://www.sherweng.com/table.html>
- ▶ International Radio - Roofing Filters
 - ▶ <http://www.inrad.net/files/Pubs/About%20Roofing%20Filters.pdf>

ARRL Testing

- ARRL Test Procedures Manual
 - <http://www.arrl.org/test-procedures-manual>
- ARRL Publications: Amateur Radio Transceiver Performance Testing
 - <http://www.arrl.org/shop/Amateur-Radio-Transceiver-Performance-Testing>

Other Factors

- ▶ Cost
- ▶ Purpose: Contesting, Ragchewing, Dx-ing, Digital
- ▶ Features
 - ▶ User Interface, usability
 - ▶ Spectrum Display
 - ▶ USB
 - ▶ External display
 - ▶ CW Decoding
 - ▶ Transmitter Power
 - ▶ USB, Sound Card
 - ▶ Dual Receivers
- ▶ All Technical Specs
- ▶ Aesthetics, Size, Weight, Portability
- ▶ Warranty
- ▶ Brand

Currently Available HF Rigs

Radio	Price	Technology
Flex 6700	6499 (need PC)	SDR
Icom IC-R8600	2300 (rcvr only)	SDR
Elecraft K3S	3030	Hybrid
Icom IC-7851	13500	Up Conv Superhet
Kenwood TS-890S	4000	Down Conv Superhet
Hilberling PT-8000A	Approx. 11200	Up Conv Superhet (??)
Elecraft KX3	1075	SDR
Apache ANAN-7000DLE	2800 (need PC)	SDR
Yaesu FTDX-5000	3500	Down Conv Superhet
Flex6600M	5000	SDR
Icom IC-7610	3030	SDR
Icom IC-7300	980	SDR
Kenwood TS-590SG	1350	Up/Down Conv Superhet
Kenwood TS-990	6900	Down Conv Superhet
Yaesu FTDX-3000	1330	Down Conv Superhet
Icom IC-7700	5996	Down Conv Superhet
Yaesu FTDX-1200	860	Up Conv Superhet