

# QST Product Review Lab Measurement Comparison Tool

A new easy-to-use online tool lets you compare ARRL Lab test data on receivers, transmitters, transceivers, and amplifiers.

ARRL recently unveiled a new tool for better understanding and comparing QST Product Review Lab measurements of equipment that is on the market. The Lab Measurement Comparison Tool, available to members at <https://compare.arrl.org>, currently lists more than 130 amateur radio receivers, transmitters, transceivers, and amplifiers from the last decade of Product Reviews, with each item independently tested by the ARRL Lab. The tool is designed to help hams compare equipment based on objective Lab data. Before, you may have had to open multiple side-by-side tabs or thumb through various issues of QST; now, you are never more than three clicks away from a filtered, sorted, side-by-side comparison of the gear you are interested in.

Featured in this tool are:

- A large **comparison table** of receivers, transmitters, transceivers, and amplifiers. Clicking on the **NAME** column header sorts alphabetically (A to Z or Z to A); the default sorting is chronological based

on when the equipment was reviewed (newest to oldest).

- The **ability to filter** by **BANDS** (HF, VHF, UHF, SHF), **MODES** (FM, SSB, CW, DMR), **POWER** (QRO or QRP), device **TYPE** (handheld, receiver, transceiver, base station, amplifier, etc.), and **ARRL CSI** (Clean Signal Initiative) status. Use the **CLEAR** button to clear filters for the category, or click **CLEAR ALL FILTERS** at the top of the filter bar to remove all filters.
- **Hyperlinks** to Product Reviews for further information, accessed by clicking the name of the device.
- **Key receiver metrics: SENSITIVITY** (CW/SSB, AM, FM), blocking gain compression dynamic range (**BDR** at 2 kHz), reciprocal mixing dynamic range (**RMDR** at 2 kHz), third-order dynamic range (**DR3** at 2 kHz), **FM ADJACENT CHANNEL REJECTION**, and **FM DR3** (20 kHz spacing) are all included in the table, and by clicking the table header you can sort best to worst or worst to best.

Select	Name	Type	Bands	Modes	Power	ARRL CSI	CW SSB Sensitivity (dBm)	AM Sensitivity (dBm)	FM Sensitivity (dBm)	RMDR 2 kHz (dB)	BDR 2 kHz (dB)	DR3 2 kHz (dB)	FM Adjacent Channel Rejection (dB)	FM DR3 (dB)	Output Power (W)	Third-Order IMD (dBc)	CW Sidebands (dBc)	Composite Noise (dBc/Hz)	Phase Noise (dBc/Hz)
<input type="checkbox"/>	<a href="#">Icom IC-PW2</a>	Amplifier	HF, VHF												1000	-48			
<input checked="" type="checkbox"/>	<a href="#">Icom IC-7780</a>	Base Station, Transceiver	HF, VHF	AM, CW, DIGI, FM, SSB	QRO	IMD	-126	-103	-108	113	116	98	87	87	200	-48	-18 -31 -44	-120 -124 -141	
<input type="checkbox"/>	<a href="#">KiviSDR 2</a>	Base Station, Receiver	HF	AM, CW, DIGI, FM, SSB			-128	-95	-102	81	114	66	84	81					
<input type="checkbox"/>	<a href="#">Wouxun KG-Q10H</a>	Handheld, Transceiver	UHF, VHF	AM, FM	QRP			-114.9	-122				57	56	5				
<input type="checkbox"/>	<a href="#">Elecraft K1H</a>	Handheld, Transceiver	HF	CW, DIGI, SSB	QRP		-133			64	92	83			5		-48		-130
<input type="checkbox"/>	<a href="#">KX3K3M Mercury LUX</a>	Amplifier	HF, VHF												1500	-20			
<input type="checkbox"/>	<a href="#">Alinco DR-SS10HT</a>	Mobile, Transceiver	VHF	FM	QRO				-123				78	71	60				
<input type="checkbox"/>	<a href="#">Xiegu X8200</a>	Base Station, Transceiver	HF, VHF	AM, CW, DIGI, FM, SSB	QRP		-131	-93	-96	113	122	89	65	77	8	-20	-72		-121
<input type="checkbox"/>	<a href="#">Icom IC-R15</a>	Handheld, Receiver	UHF, VHF	AM, FM				-113	-123				68	82					
<input type="checkbox"/>	<a href="#">Pacific Antenna KD3LV</a>	Base Station, Transceiver	HF	CW	QRP		-127			102	101	82			5		-45		-131
<input type="checkbox"/>	<a href="#">KM4CFT CFT1</a>	Base Station, Transceiver	HF	CW	QRP		-127			79	112	90			5		-55		-128
<input type="checkbox"/>	<a href="#">Whistler TRX-1</a>	Handheld, Receiver	HF, UHF, VHF	AM, DMR, FM				-114	-120										
<input type="checkbox"/>	<a href="#">Uniden SDS100</a>	Handheld, Receiver	HF, UHF, VHF	AM, DMR, FM				-106	-114										
<input type="checkbox"/>	<a href="#">Icom IC-905</a>	Mobile, Transceiver	SHF, UHF, VHF	AM, ATV, CW, SSB	QRP		-138	-115	-123				77	80	10				
<input type="checkbox"/>	<a href="#">QRP Labs QMX</a>	Base Station, Transceiver	HF	CW, DIGI	QRP		-127			79	67	85			5		-77		-131
<input type="checkbox"/>	<a href="#">Kenwood TH-D75A</a>	Handheld, Transceiver	HF, UHF, VHF	AM, CW, D-STAR, DIGI, FM, SSB	QRP		-132	-120	-123				68	72	5				
<input type="checkbox"/>	<a href="#">BG2FX</a>	Base Station,	HF, VHF	AM, CW, DIGI, FM,	QRP		-128	-82	-83	76	66	77	58	Hover for info	20	-19	-30		-116

A view of the full comparison table in **FOCUS MODE**, which removes the ARRL site navigation from the top of the page such that only the data and search functions are visible.

- **Key transmitter metrics:** **OUTPUT POWER** (in Watts), **THIRD-ORDER IMD**, transmitted **PHASE NOISE** (for all radios reviewed before April 2026), transmitted **COMPOSITE NOISE** (for all radios reviewed after April 2026), and **CW SIDE-BANDS** (at 500 Hz spacing before April 2026, and worst case within the three CSI bandwidths for all radios reviewed after April 2026). These measurements are grouped together, and by clicking the table header you can sort best to worst or worst to best.
- **Selectable side-by-side comparison:** Click or tap the small checkbox to the left of every entry to include the product in a side-by side comparison. This highlights the row, and by selecting two or more products and clicking the **COMPARE** button at the top left (desktop) or bottom left (mobile), you can open a new tab that contains the selected products for a direct side-by-side comparison.
- **Reorderable columns:** Drag the column headers to change the order of the columns in order to group together the measurements that are important to you. The **RESET COLUMNS** button (at the top right on desktop and bottom right on mobile) moves the columns to their default sorting.
- **Help button:** The **WHAT DO THESE NUMBERS MEAN** button forwards to a short summary of each of the measurements and how they impact on-air performance, with URLs to helpful articles that go more in-depth on what the numbers signify. Eventually this page will include video content demonstrating these effects. This page will also be linked in all future Product Review data tables.
- **Focus mode:** This mode removes the top and bottom banners so that only the data and key buttons are visible on the page.
- **Search function:** The search bar at the top right corner can be used to search for particular manufacturers or models.

## Purpose

The tool serves as a technical reference and selection guide so that members can get the most out of their access to Product Reviews and associated measurements. It is, in part, a one-stop reference to see which radios meet the ARRL CSI standards.

The **ARRL CSI** header is not a traditional transceiver metric. It is a transmitter quality standard indicating that a radio is among the cleanest transmitters tested in the ARRL Lab. In this column, you will see “IMD” if the

Specifications		
Type	Transceiver, Handheld	Transceiver, Handheld
Bands	VHF	VHF, UHF
Modes	FM	FM
Power	QRP	QRP
ARRL CSI	-	-
CW SSB Sensitivity (dBm)	-	-
AM Sensitivity (dBm)	-	-
FM Sensitivity (dBm)	-123	-125
RMDR 2 kHz (dB)	-	-
BDR 2 kHz (dB)	-	-
DR3 2 kHz (dB)	-	-
FM Adjacent Channel Rejection (dB)	75	74
FM DR3 (dB)	75	74
Output Power (W)	5.1	5.5
Third-Order IMD (dBc)	-	-
CW Sidebands (dBc)	-	-
Composite Noise (dBc)	-	-
Phase Noise (dBc)	-	-

A side-by-side comparison of two handheld transceivers generated using the ARRL Lab data table.

radio passed the Lab’s transmitted IMD mask, “CW” if the radio passed the Lab’s CW bandwidth mask, and “CN” if the radio passed the Lab’s composite noise mask. If a radio has at least one CSI badge, a bronze stripe and a star will appear to the left of its name; if it has two CSI badges, a silver stripe with two stars will appear, and if it has three CSI badges, a gold stripe with three stars will appear. Read more about CSI in the April 2026 issue of *QST*.

This online tool contains data pertaining to transmitter and receiver quality, and you will still need to read the reviews to get more information about gear you are interested in. For instance, a portable operator might care more about power draw from a transceiver than the transceiver’s composite noise rating, and for that you will still need to go to the review. But this tool enables members to easily focus their search on radios that have the functions and features they want, sort equipment by the measurements that matter to them, and then narrow their focus to a few items.