



HF/50 MHz 1 kW LINEAR AMPLIFIER

IC-PW2

Icom's Most Advanced Linear Amplifier

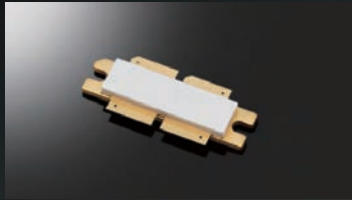
Genuine Power, Reliability, and Performance



1 kW Output at Full Duty Cycle Single Operator Two Radios (SO2R) with One IC-PW2

High Power and Full Duty Cycle Operation

The IC-PW2 uses new 65 V LDMOS power transistors and a high-efficiency power supply. 1 kW output at full duty cycle can be achieved with 200 V AC input. It can be operated immediately at full power operation after booting up the IC-PW2. Of course, you can operate it continuously, even in long contest hours, or full-duty FT8 operation.

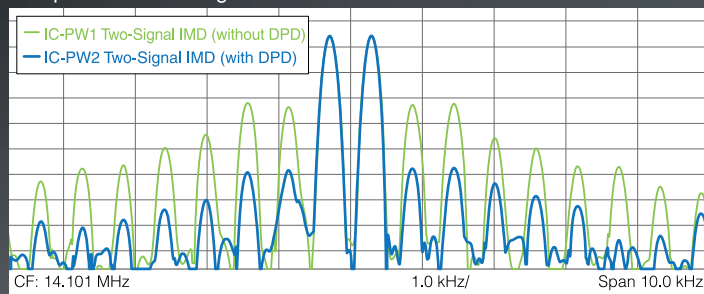


LDMOS Transistor <MRFX1K80HR5>

Increased Linearity & Clean Transmission with the Digital Pre-Distortion (DPD) (with the IC-7610)

The IC-PW2 has succeeded in realizing the world's first*1 DPD as a linear amplifier for amateur radio in combination with the IC-7610. This technology corrects the signal distortion from the IC-PW2, by applying inverse distortion to the output signal from the IC-7610 exciter in advance*2.

Comparison of Two-Signal Characteristics



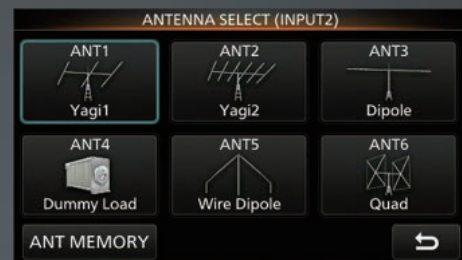
2 × 6 Automatic Antenna Selector

Two radio inputs and six antenna connectors provide fully automatic antenna switching capabilities. Each antenna can be selected independently when making a band change on either transceiver. You can operate it as if you had two linear amplifiers. When using dual independent receivers, which the IC-7610 and IC-7851 have, you can watch dual bands at once by using two antennas.



Detachable Controller with Touch Screen Display

A remote-control cable (3 m, 9.8 ft) enables the amplifier to be mounted away from the radios for a big station installation. The 4.3 inch color display is a touch screen with a graphical user interface. Connected antennas are graphically shown on the display.



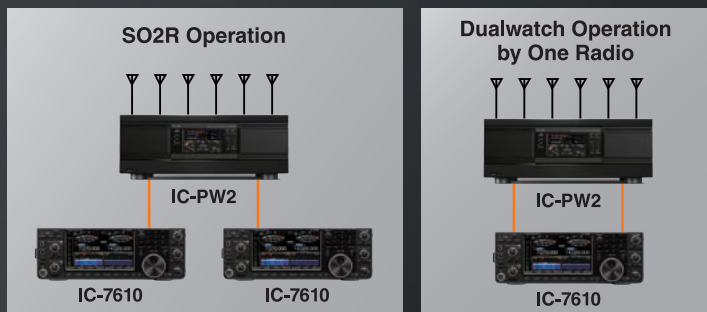
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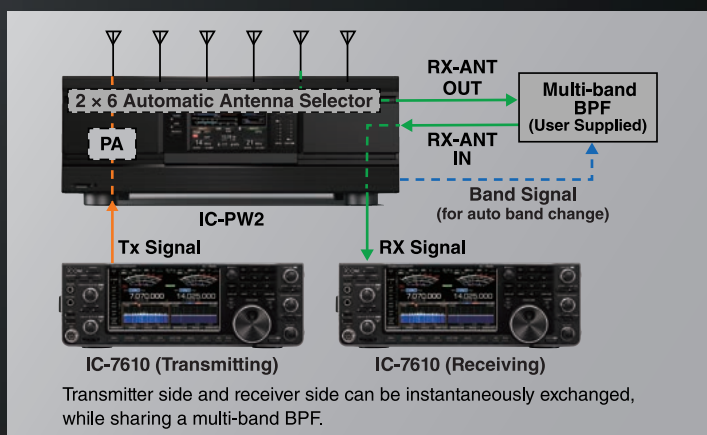
Powerful SO2R Features

SO2R operation is possible with one IC-PW2. While you are making a call on one radio, you can watch another band on the other radio.*³ The transmitter lockout function*⁴ prevents simultaneous transmission of two radios during SO2R operation.



SO2R Possible with One Multi-band BPF

Conventional linear amplifiers require two multi-band BPFs to prevent suppression of receive sensitivity by their own transmit signal when operating SO2R. However, the IC-PW2 automatically connects the multi-band BPF to the receiving radio when you select either radio to transmit. This makes SO2R operation possible with just one Multi-band BPF.*³



Completely Linked with Icom Radio Operation*⁴

With compatible Icom radios, various settings are easy, and you can get the full performance out of the IC-PW2. When you operate the transceiver by changing bands and frequency tuning, the IC-PW2 automatically works in conjunction with it. It provides an extremely quick response in contests and multi-band operations.

RX-ANT Connectors for Multi-band BPF and External Equipment

User supplied bandpass filters (BPF), preamps, and attenuators can be connected to the [RX-ANT] connectors. When you use two radios with the IC-PW2, one multi-band BPF can be shared with these radios by switching the receiving radio. In addition, the band switching of multi-band BPF can be controlled from the band signal output connector. The [BAND 1], [BAND 2] signal output connectors, can each be set to either [INPUT 1], [INPUT 2], transmitter side, or receiver side. It can be linked with band switching of various external devices.

Built-in Automatic Antenna Tuner

By using mechanical relays, the antenna tuner can quickly retune the operating band in two to three seconds.

The IC-PW2 has also succeeded in reducing unnecessary emissions during tuning. The antenna tuner works even when the power amplifier function is not used.



Tuner Unit

Other Features

- High-efficiency and low noise cooling system
- Various error detection circuits protect internal components
- An SD card slot on the front panel for firmware updates and saving settings
- Remote AUX jack for controlling an automatic tuning telescopic antenna
- Antenna quick select function that can connect to priority antenna with simple action
- LAN connector for Internet/LAN remote control (available in future)

*¹ According to our research as of July 2023.

*² Not applied in non-linear modulation such as FM, FSK, and MSK modes.

*³ Performance may deteriorate, depending on the performance/ specifications of the BPF and exciter, antenna installation conditions, and other factors. In such cases, please take measures such as using two sets of BPFs.

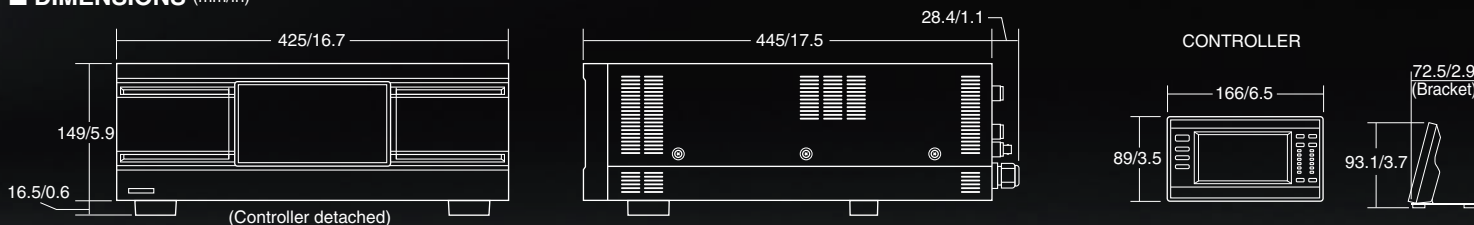
*⁴ Complete radio linked operation is available with IC-7851, IC-7610, and IC-7300 (Firmware upgrade required.)

■ SPECIFICATIONS

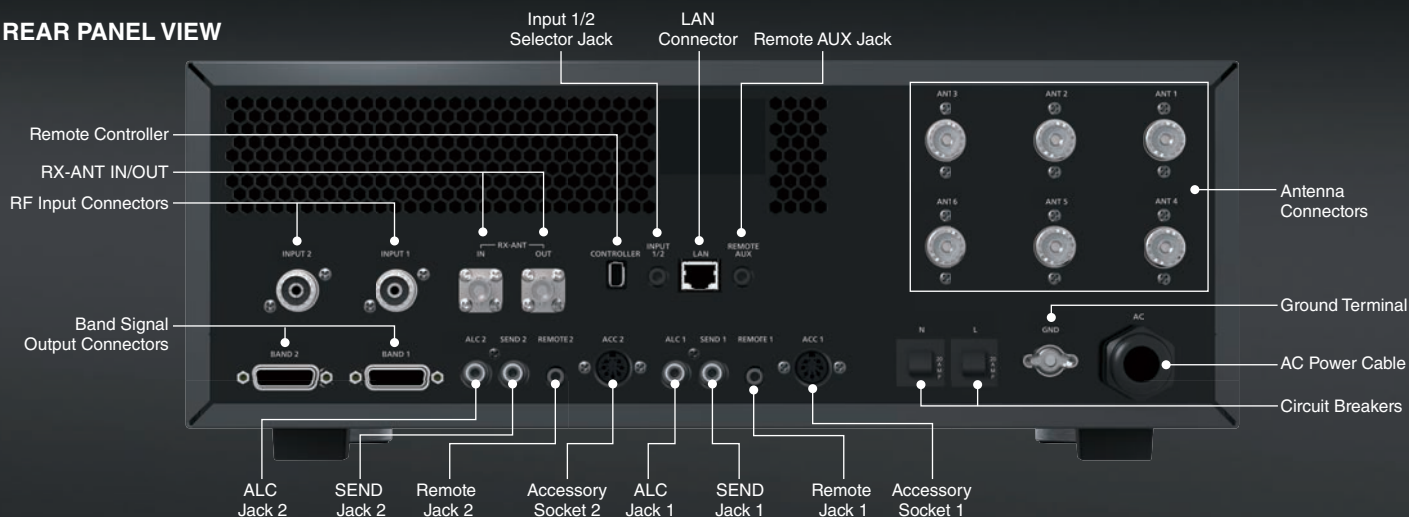
Output power	1 kW (180 ~ 264 V AC) 500 W (90 ~ 132 V AC)
Driving power	Maximum 100 W
Frequency coverage	1.9, 3.5, 7, 10, 14, 18, 21, 24, 28, 50 MHz bands (Amateur bands)
Power supply requirements	90 ~ 132 V AC or 180 ~ 264 V AC
Power consumption	2000 VA (100 V AC) 3000 VA (200 V AC)
Usable temperature range	-10°C ~ +40°C, +14°F ~ +104°F
Input connector	SO-239 × 2 (50 Ω)
Output connector	SO-239 × 6 (50 Ω)
Dimensions (W×H×D)	425 × 149 × 445 mm, 16.7 × 5.9 × 17.9 in (Projections not included)
Weight (Approximate)	22 kg, 48.5 lb
Spurious emissions	-60/-70 dB or less (HF/50 MHz band)
Tuner matching range	16.7 ~ 150.0 Ω (HF ~ 50 MHz)
Tuning accuracy	VSWR 1: 1.5 or less

All stated specifications are subject to change without notice or obligation.

■ DIMENSIONS (mm/in)



■ REAR PANEL VIEW



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This device has not been approved by the Federal Communications Commission. This device may not be sold or leased, or be offered for sale or lease, until approval of the FCC has been obtained.

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■ SUPPLIED ACCESSORIES

- Control cable (3 m, 9.8 ft)
- Coaxial cable (3 m, 9.8 ft)
- Bracket for controller
- ACC cable (3 m, 9.8 ft)
- Mini plug cable (3 m, 9.8 ft)
- Front plate (for separated RF unit)

■ OPTIONAL ACCESSORIES

OPC-599

ADAPTER CABLE

ACC 13-PIN connector to 7-PIN
+ 8-PIN ACC connectors



OPC-2501

DPD FEEDBACK CABLE (3 m, 9.8 ft)



Some options may not be available in some countries.
Please ask your dealer for details.