



HF/50 MHz 1 kW LINEAR AMPLIFIER

**IC-PW2**

# Icom's Most Advanced Linear Amplifier

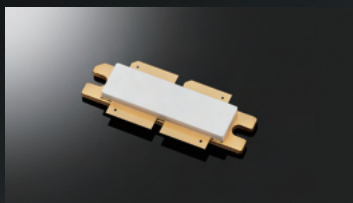
Genuine Power, Reliability, and Performance



# 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.

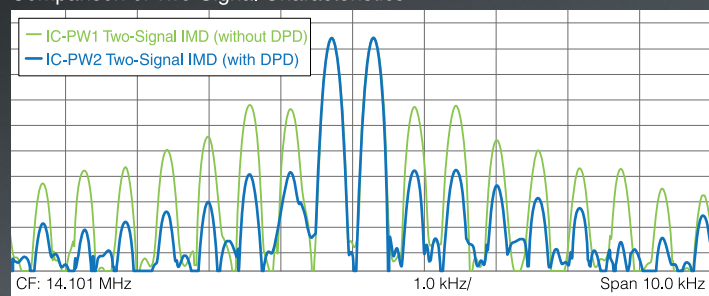


LDMOS Transistor <MRFX1K80HR5>

## 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



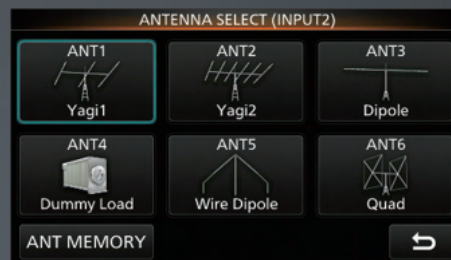
## 2 x 6 Automatic Antenna Selector

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.



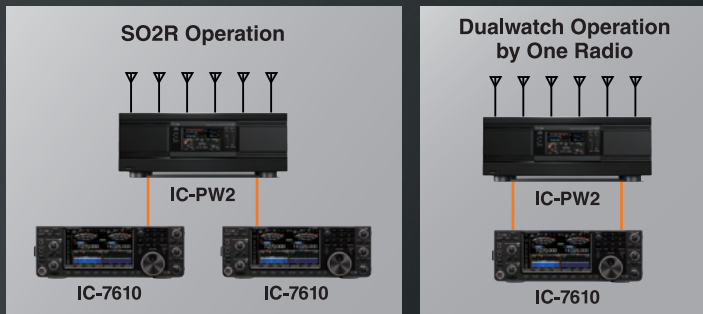
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# IC-PW2



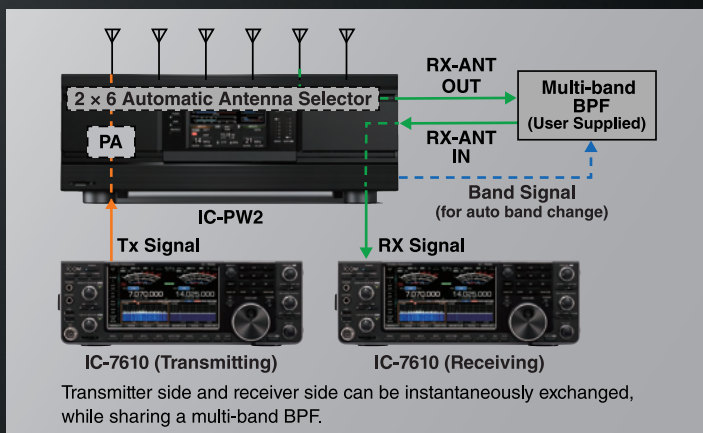
## Powerful SO2R Features

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.

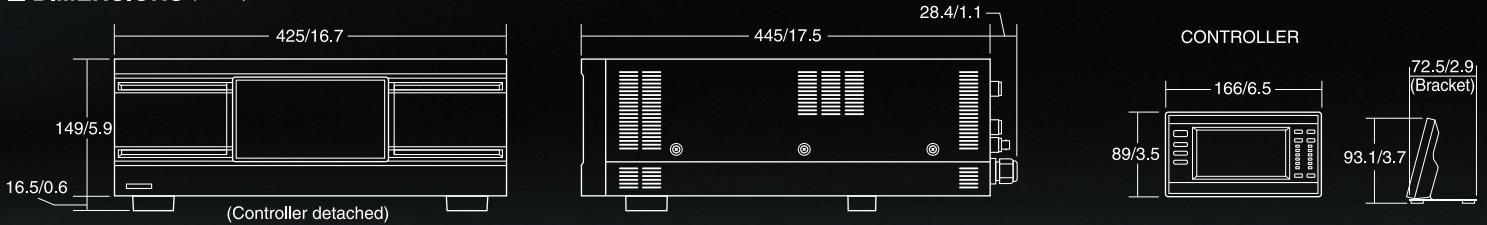
\*4 Complete radio linked operation is available with IC-7851, IC-7610, and IC-7300 (Firmware upgrade required.)

## ■ SPECIFICATIONS

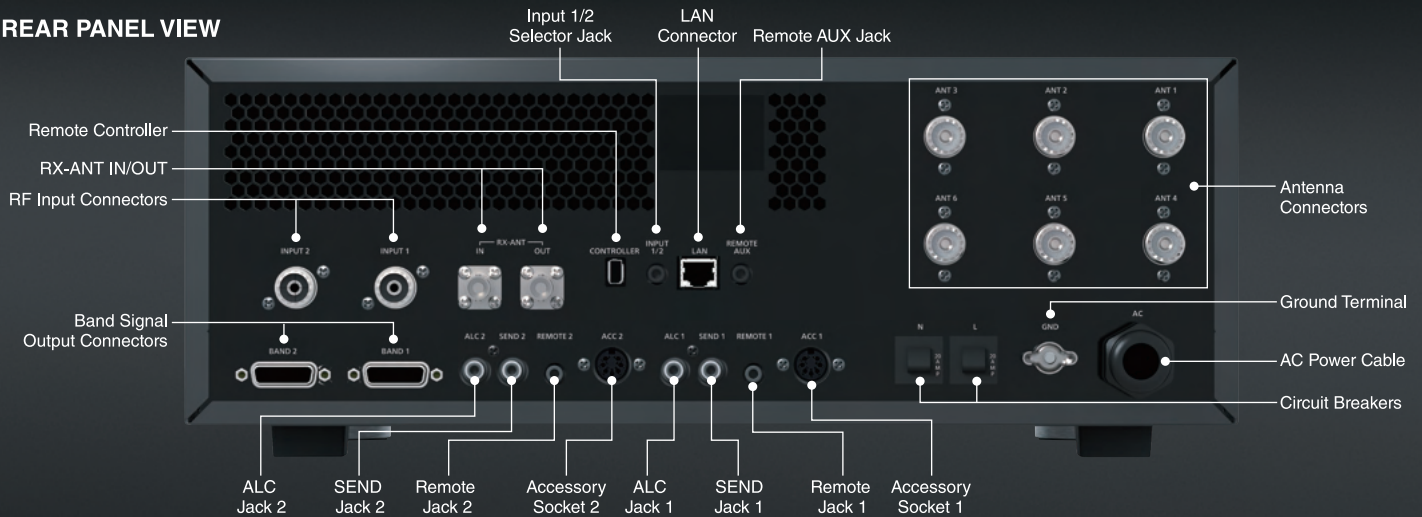
Output power	1 kW (180 ~ 264 V AC) 500 W (90 ~ 132 V AC)
Driving power	Maximum 100 W
Frequency coverage	1.9, 3.5, 7, 10, 14, 18, 21, 24, 28, 50 MHz bands (Amateur bands)
Power supply requirements	90 ~ 132 V AC or 180 ~ 264 V AC
Power consumption	2000 VA (100 V AC) 3000 VA (200 V AC)
Usable temperature 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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## ■ 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.

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