

## Features

From 150 kHz - 250 MHz

Suitable for IEC-61000-4-6 testing

Automatic Safety Shutoff

Three year warranty



## Description

The Com-Power ACS-230 series of broadband RF amplifiers; diverse in application, yet specifically geared for use in IEC 61000-4-6 immunity testing using coupling decoupling networks (CDN).

The ACS-230-series models are engineered to provide high gain, with excellent efficiency and reliability, at an unbeatable price. It complementing Com-Power's full line of Coupling/Decoupling Networks (CDN's) and related test and calibration accessories. It easily achieves 3 Vrms or 10 Vrms test levels with any compliant coupling network (CDN, EM Clamp, Injection Probe, etc.) The ACS-230-series amplifiers complies with all required technical specifications for IEC 61000-4-6 compliance testing, yet its low cost makes it affordable even as part of a pre-compliance testing solution.

These amplifiers are individually tested to make sure that they meet the technical requirements given in IEC-61000-4-6 before shipment. The amplifiers can be also supplied with a matched CDN and test accessories for a complete solution. Optional software to automate the conducted immunity testing is also available. All Com-Power products come with a 3 year warranty.

## Application

The required test levels per IEC 61000-4-6 (given in the table below) that can be achieved using the ACS series power when properly configured with a compliant coupling decoupling network from Com-Power or another manufacturer. Please refer to IEC 61000-4-6 for information on test setup, procedures and test accessories needed.

| Test Level<br>Volts (Vo) | umr (150)<br>Volts | umr (150)<br>Volts (dBm) |
|--------------------------|--------------------|--------------------------|
| 1                        | 0.167              | -2.5                     |
| 2                        | 0.5                | 7                        |
| 3                        | 1.67               | 17.5                     |

Vo = Open circuit voltage in 150Ω system.  
umr = Voltage level measured at the output of the 150Ω to 50Ω adapter (ADA-515).

Test accessories available from Com-Power:

- 150Ω to 50Ω adapter (ADA-515)
- 50Ω terminator (TEP-050)
- CDN shorting Adapter (ADA-xx)
- Directional Couplers - (DCU & DCD series)
- Attenuator - ATTN-X- series

# Specifications

| MODEL                                 | ACS-230-25W                            | ACS-230-50W                            | ACS-250-100W                           |
|---------------------------------------|--|--|--|
| Frequency Range                       | 150 kHz to 230MHz                      | 150 kHz to 230 MHz                     | 150 kHz - 250 MHz                      |
| Rate Power Output                     | 25 Watts into 2:1 VSWR                 | 50 Watts into 2:1 VSWR                 | 100 Watts into 2:1 VSWR                |
| Gain                                  | 43 dB ±2                               | 47 dB ±2                               | 50 dB ±2                               |
| Input for rated output                | 0 dBm                                  | 0 dBm                                  | 0 dBm                                  |
| Automatic Safety Shutoff              | 30 Watts ±2                            | 50 Watts ±2                            | 140 Watts                              |
| P1dB                                  | NA                                     | NA                                     | No compression until 100 W             |
| <b>INPUT</b>                          |  |  |  |
| Impedance                             | 50 Ohm (nominal)                       | 50 Ohm (nominal)                       | 50 Ohm (nominal)                       |
| VSWR                                  |  |  |  |
| Input Signal Modulation Compatibility | AM, FM, Pulse                          | AM, FM, Pulse                          | AM, FM, Pulse                          |
| Connector                             | 50 Ohms                                | 50 Ohms                                | 50 Ohms                                |
| <b>OUTPUT</b>                         |  |  |  |
| Impedance                             | 50 Ohm (nominal)                       | 50 Ohm (nominal)                       | 50 Ohm (nominal)                       |
| VSWR                                  | 1:7 max                                | 1:7 max                                | 1:7 max                                |
| Harmonic distortion                   | -20 dBc at 25 Watts                    | 17 dBc at 50 Watts                     | 15 dBc at 100 Watts                    |
| Mismatch tolerance                    | Auto shut off @ VSWR >7                | Auto shut off @ VSWR >7                | Auto shut off @ VSWR >7                |
| Connector                             | Type N front panel                     | Type N front panel                     | Type N front panel                     |
| <b>POWER</b>                          |  |  |  |
| AC Single Phase                       | 100-240 VAC 50/60 Hz                   | 100-240 VAC 50/60 Hz                   | 100-240 VAC 50/60 Hz                   |
| <b>LCD DISPLAY</b>                    |  |  |  |
| Front panel Display (column 1)        | Current                                | Current                                | Current                                |
| Front panel Display (column 2)        | Temperature                            | Temperature                            | Temperature                            |
| Front panel Display (column 3)        | Load VSWR, RF Power input/output, Gain | Load VSWR, RF Power input/output, Gain | Load VSWR, RF Power input/output, Gain |
| <b>INTERFACE</b>                      |  |  |  |
|                                       | USB                                    | USB                                    | USB                                    |
| <b>MECHANICAL</b>                     |  |  |  |
| Cooling                               | Forced air (integ. fan)                | Forced air (integ. fan)                | Forced air (integ. fan)                |
| Size                                  |  |  |  |
| Weight                                | 19 inch rack 2U                        | 19 inch rack 3U                        | 19 inch rack 4U                        |
| Operating Temperature                 | 0° C to 40°C                           | 0° C to 40°C                           | 0° C to 40°C                           |

All specifications are subject to change without notice.  
All values are typical, unless specified.