

# 4933

## RF Shield

**AEROFLEX**  
A passion for performance.



### Highlights

- Large lid provides for easy access to the enclosure
- Microprocessor-controlled solenoid latching
- Remote control for integration with test system
- High shielding factor for safe testing in all applications
- High-grade absorption for repeatable test results

### RF Shield Size Can Enclose Even Bulky Devices

Units under test in the wireless industry are becoming more bulky, with radio modules being installed in devices like notebook or desktop computers, access points, micro base stations or even power meters. Normal shielded enclosures are either too small or just too clumsy to use in professional or high-volume test applications.

The Aeroflex 4933 RF Shield is the answer to these requirements. The most innovative shielded enclosure on the market helps anybody with a bulky test problem, even in applications like EMC or emissions test.

### Easy Access for Bulky Test Devices

No matter if used in R&D, in a conformance test lab or in a high-volume service center for radio devices: The Aeroflex 4933 RF Shield with its solid front lid provides access to its entire inner width, enabling users to easily load and unload it and providing direct access to the device under test.

The enclosure is wide enough to accommodate even bulky devices such as widescreen laptops, desktop computers, micro base stations or other equipment which the user needs to put to test. Typical applications include measurements of the RF or emission parameters.

All moving parts of the 4933 RF Shield are, of course, tested to ensure they last for a long time without a decrease in performance. See the Specifications section of this data sheet for details on Aeroflex's cycle guarantee.

### New "Zero Force" Latch Enables Easiest Operation

The Aeroflex 4933 RF Shield can be opened and closed without operating a latch. The lid is kept closed by two powerful solenoids, which are activated automatically and put exactly the right pressure on the RF gasket for optimum shielding performance. The correct closing status is indicated by LEDs. It takes no more than a light touch on the control module to open the lid. The box can be operated literally without force – a real "Zero Force" technology!

All functions and status controls which can be read from the enclosure's control module can also be obtained via a standard USB remote control interface. This way the 4933 can be operated semi-automatically based on Aeroflex's 7130 Lector or proprietary software.

Zero Force and Remote Control – two Aeroflex innovations that help reduce test time, cut down on the physical effort needed and significantly help increase test precision!



## High Shielding In Every Environment

Shielding is the most important requirement for an enclosure like the 4933 RF Shield. Aeroflex is the only supplier testing every box based on a very stringent standard, the military standard VG 95373 part 15. Each shielded test enclosure from Aeroflex needs to pass the isolation test with a value much higher than specified in the data sheet. This way, Aeroflex can guarantee the high isolation in the specified frequency range even after 50,000 open-close cycles.

The specified isolation is high enough to test RF devices even under extreme conditions, e.g. on a test site that is colocated with a radio base station in the same building.

## Absorption for Repeatable Test Results

If RF devices are used within an enclosure, RF waves will be reflected from the metal sheets the box is made of. This can result in standing waves and other reflection effects that make test results worthless or even put damage on the devices under test. To avoid reflections, Aeroflex uses only high-class absorber material in its boxes. This way Aeroflex can guarantee that tests in different boxes are comparable and the test results are reliable and repeatable.

## Options Match Almost All Applications

The 4933 RF Shield can be equipped with antenna couplers and a base plate with a grid of holes to support fixture blocks for devices under test or one of our antenna couplers. These optional extensions turn the RF Shield into a universal tool for a large range of test applications.

Aeroflex offers a wide variety of back panels for the enclosure, supporting the connection between the unit under test and external equipment. Customers can select between USB, Ethernet, RF and many more filtered connectors, which are tailor-made for the application by Aeroflex's Service department.



## SPECIFICATIONS (PRELIMINARY)

Specifications are valid within a period of one year after delivery and a maximum of 50,000 open-close cycles; initial isolation significantly exceeds the values specified.

### RF SHIELDING

700 to 6000 MHz (with standard back panels)

>80 dB

### MECHANICAL SPECIFICATIONS

#### Outer Width

645 mm (25.4")

#### Outer Height, Lid Closed

467 mm (18.4")

#### Outer Height, Lid Open

1015 mm (40")

#### Outer Depth

750 mm (29.5")

#### Usable Inner Width

528 mm (20.8")

#### Usable Inner Depth

571 mm (22.5")

#### Usable Inner Height, Front

60 mm (0.3")

#### Usable Inner Height, Rear

363 mm (14.3")

#### Weight

28 kg (62 lbs.)



## **STANDARD DELIVERY**

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4933 RF Shield

Power supply

Mains cable

USB cable

One plain back panel, one back panel with N-to-N bulkhead connector

## **ORDERING INFORMATION**

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4933 RF Shield AG 100 101

4914 Antenna Coupler (with N cable for 4933) AG 248 699

4916 Antenna Coupler (with N cable for 4933) AG 248 642

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Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.

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