

# 3500 Portable Radio Communications Test Set



Designed to dramatically improve radio operational time in vehicle installations and reduce the number of incorrectly diagnosed radios that result in NTF (No Trouble Found).

- 2 MHz - 1 GHz operation
- Portable and rugged
- AM/FM transmitter and receiver tests
- Spectrum Analyzer with -136 dBm noise floor
- Antenna/Cable tests
- Isolate radio and installation failures

The Aeroflex 3500 is the *First Truly Rugged, Portable Radio Test Set*. With the latest in portability, battery life and performance, the Aeroflex 3500 builds upon Aeroflex's expertise in developing portable radio communications test sets with exclusive features and affordability that are destined to set a new standard in portable radio test sets. The 3500 is capable of measuring high power (20 W without an external attenuator, up to 150 W with an external attenuator option), as well as finding faults in antennas, power amplifiers and interconnects. Designed to meet the needs of a multitude of radio tests, the 3500 provides fast, reliable measurements of the radio's transmitter and receiver parameters. With the additional capability to perform quick testing of antennas and cables, the 3500 provides the most complete portable test solution available to quickly isolate problems and assess performance of the radio, cable and antenna systems. With extensive operational capability, the 3500 provides portable test features that you typically find in bench top radio test equipment.

### Portable and Rugged

- Easy portability - weighs only 8.5 lbs. (3.9 kg)
- Rugged construction - solid aluminum weatherproof case
- -20° to +50° C operating temperature range
- 5 hour battery life

Aeroflex engineers designed the 3500 from the ground up to be portable and rugged, weighing in at only 8.5 lbs (3.9 kg) including the battery. It has a solid aluminum weatherproof case, an operating temperature range of -20° to +50°C, and rugged construction specifications (Mil-PRF-28800A) for humidity, altitude, shock, and vibration. The battery gives the user 5 hours of operation and can be fully re-charged and ready to operate in only 4 hours. In addition, the 3500 and the optional accessories can be stored in a ruggedized transport case.

### Radio Installation Failures

- Handset and antenna allow over the air "Talk Test"
- RSSI Meter
- RF Error Meter
- Modulation Measurements
- Audio Frequency Counter
- Spectrum Analyzer

Designed to be used for quick installed radio testing (DriveBy Testing), the 3500 can efficiently and easily find radio failures. There is no need to connect to the radio under test, simply connect the supplied antenna, key up the radio and then measure the radio parameters over-the-air. A handset is provided to check voice quality of the transmitter and receiver. A push-to-talk button on the handset controls whether the 3500 is transmitting or receiving. The "Drive by" test screen, shown below, is ideal for making quick transmitter and receiver measurements on an installed radio system.

DRIVEBY TEST		
Generator MHz: 50,000000 Port: ANT Mod: FM Lvl: -70 dBm	Receiver MHz: 50,000000 Port: ANT Mod: FM 25k AFBw: [C-Wt BP]	MOD-FMDEV 1.998 0 kHz 100
Modulator Gen 1: ON 1000,0 Hz 2,00 kHz DCS ON 026 0,60 kHz Ext Aud: OFF Load: High Z MIC: OFF	Freq/Code FM	RF-ERROR -0.014 -200 kHz 200
Bat: 53 Temp: 28 Vol: 10 Recall Save Aud Out Speaker	AF-COUNTER 999.9 15 Hz 20000	RSSI -70.92 -110 dBm 43
[Edit]	[Return]	[System] [Setup] [Ptt on]

Drive By Test Screen

RECEIVER TEST		
Generator MHz: 151,062500 Port: T/R Mod: FM Lvl: -115 dBm	SINAD-AUDIN 30.1 0 dB 60	DIST-AUDIN 1.3 0 % 100
Modulator Gen 1: ON 1000,0 Hz 6,25 kHz DCS ON 026 3,25 kHz Ext Aud: OFF Load: High Z MIC: OFF	Freq/Code FM	
Bat: 98 Temp: 34 Vol: 10 Recall Save Aud Out Speaker		
[Edit]	[Return]	[System] [Setup]

Receiver Test Screen

### Bench Top Testing

- Spectrum Analyzer
- RF power
- RF frequency error
- AM modulation/FM deviation
- Audio frequency counter
- Receive Signal Strength Indicator (RSSI)
- DCS generator
- Distortion
- SINAD/Sensitivity

Also included in the operation of the 3500 is the capability to perform bench top type testing on a radio. All radio parameters including power, frequency error, modulation accuracy, receiver sensitivity and audio performance can be easily accessed and tested with the 3500. In the Bench Top Mode, the user has the ability to tailor the operation of the 3500 to the type of testing to be performed.

The Transmitter Test screen operates as a signal analyzer, measuring the parameters associated with the transmit portion of the radio being tested. Included in this screen are measurements of the modulation, the RF power, and RF frequency error.

TRANSMITTER TEST		
Receiver MHz: 151,625000 Port: T/R Mod: FM 25k AFBw: 0,3-5k BP	Function Generator Freq Level #1: ON 1000,0 Hz 0,20 Vrms #2: OFF 2400,0 Hz 0,20 Vrms	
DIST-AUDIN 1.87 0 % 100	RF-ERROR -0.108 -200 kHz 200	RF-POWER 3.91 0 Watts 20
Bat: 57 Temp: 30 Vol: 10 Recall [Save] Aud Out Speaker	AF-COUNTER 1000.0 15 Hz 20000	Cable Offset: -1,0 RF Amp: Auto
[Zoom]	[Return]	[System] [Setup]

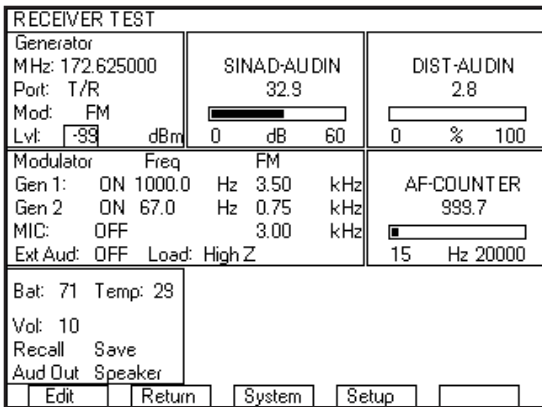
Transmitter Test Screen

1 - RECEIVER TEST
2 - TRANSMITTER TEST
3 - DUPLEX TEST
4 - SWR TEST
5 - METERS
6 - AUDIO
7 - SETUP
[Return] [System]

Bench Top Menu Screen

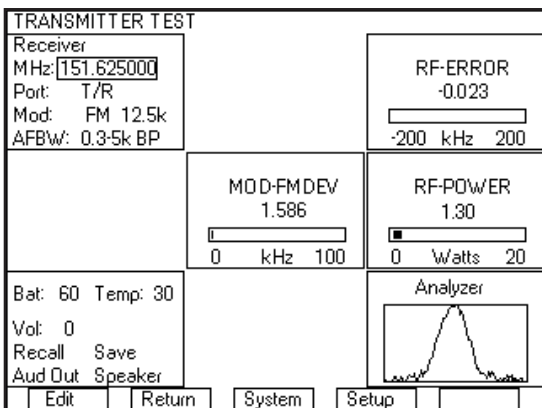
If the Receiver Test is selected, the 3500 operates as a signal generator, enabling the testing of the receiver portion of the radio. Audio SINAD, distortion, and frequency are among the tests that can be performed on the radio's receiver. With two internal generators that can be used as modulation sources, the 3500 can modulate the carrier with both a test tone and a squelch tone. In addition, the operation of Gen 2 can be changed to be DCS or DCS invert, enabling the testing of mobiles requiring a digitally coded squelch.

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Receiver Test Screen

The Transmitter Test screen operates as a signal analyzer, measuring the parameters associated with the transmit portion of the radio being tested. Included in this screen are measurements of the modulation, the RF power, and RF frequency error.

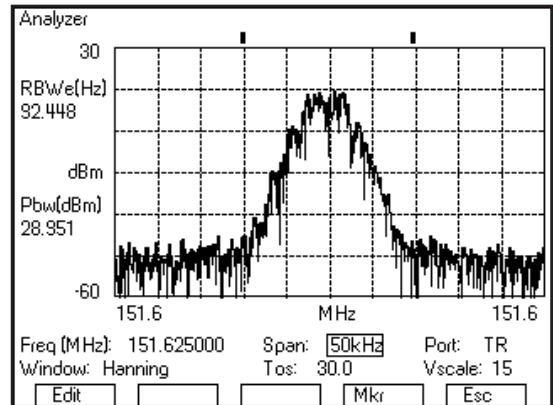


Transmitter Test Screen

New to the latest release of the 3500 is an FFT based spectrum analyzer. An FFT analyzer uses a snapshot of the incoming RF signal that is within the selected span and converts it to a frequency spectrum. The advantage of using this method is that the whole spectrum is converted from one set of data and not from a sweep where the RF signal may have changed from the start of the frequency sweep to the finish. The noise floor of the spectrum analyzer is < -136 dBm in the 10 kHz span.

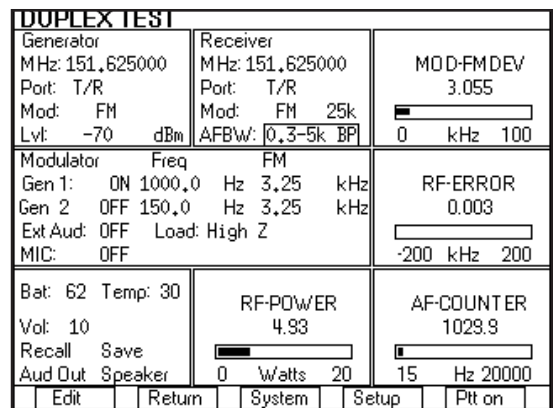
The 3500 analyzer has a span width that ranges from 10 kHz to 5 MHz with an effective resolution bandwidth as narrow as 19 Hz. A marker function includes the capability of measuring the power within a particular bandwidth and at a specified offset from the center frequency.

The Analyzer can be accessed from the Transmitted Test screen as well as the Duplex Test screen.



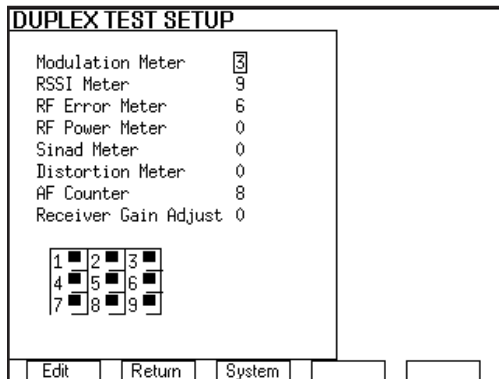
Full Screen Spectrum Analyzer

The Duplex Test screen operates as both a signal generator and analyzer, allowing simultaneous testing of the transmitter and receiver of the radio being tested. All of the capability of the transmitter test screen and the receiver test screen are included in this screen.



Duplex Test Screen

Any of the test screens can be easily configured with the meters that are needed according to the type of tests that the user wants to perform by selecting the meters from the setup screen. Users can quickly define the "look" of the instrument by configuring the way the meters are displayed on the screen.



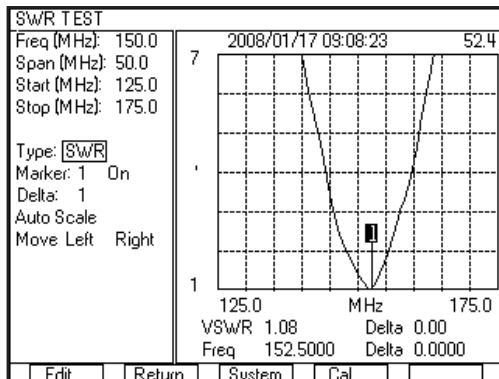
Duplex Test Setup Screen

### Isolate Cable and Antenna Problems

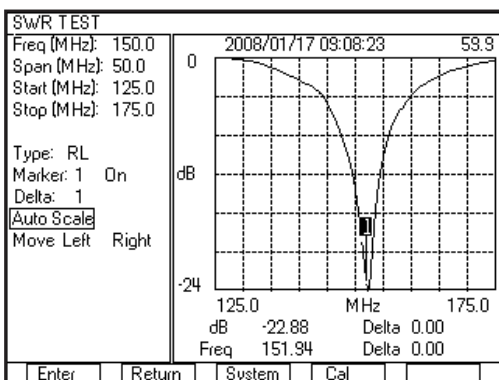
Since many radio faults lie in the cabling and/or antenna and not with the radio, the 3500 includes the capability to measure the VSWR or return loss of an antenna, and the loss or distance to fault of a cable. By isolating the problem to the cable, connector or antenna, you can avoid returning good radios to the depot or manufacturer for repair, thus avoiding radio system down time. The SWR Test screen provides the user with the option to display:

- VSWR versus frequency
- Return loss versus frequency
- Cable loss versus frequency
- Return loss versus feet

The display of VSWR or Return Loss (RL) versus frequency is useful for observing the characteristics of an antenna. The following two screenshots show examples of these two types of measurements.

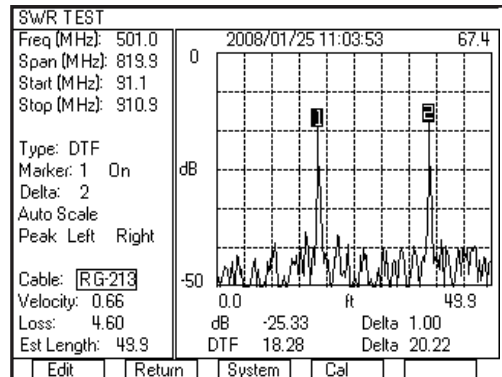


SWR Test Screen Showing VSWR Versus Frequency



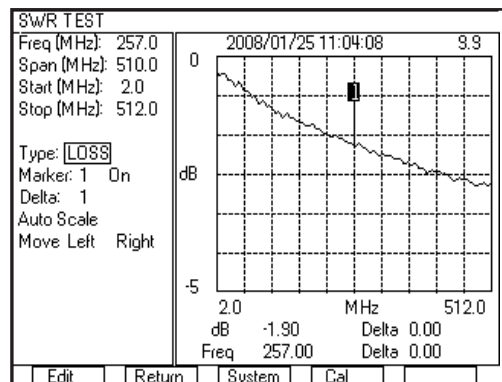
SWR Test Screen Showing RL Versus Frequency

The display of return loss versus feet is descriptive of the characteristics of a cable, illustrating to the user the precise location of faults (DTF). The following screenshot shows a cable that has a fault, with the location of marker 1 at the fault and marker 2 at the end of the cable.



SWR Test Screen Showing DTF

The cable loss feature enables the user to do a one port measurement of the loss of a cable over frequency. For example, the following screen shot shows the loss of a cable over the frequency range of 2 MHz to 512 MHz.



SWR Test Screen Showing LOSS

Up to three markers can be enabled for use in analyzing the graphical data that is acquired on the SWR test screen. The markers provide the user with information on the precise return loss at a given distance for DTF mode or the exact VSWR at a given frequency for SWR mode. A delta function, associated with the markers, is also available in order to show the difference in VSWR and frequency, or return loss and feet, between two of the markers.

### Save/Recall Features

The 3500 allows users to define pass/fail parameters and configure the test parameters and then save these files internally for future use. This feature allows fast testing on radios that require constant testing, base station verification and for testing a large number of the same radio.

### Future Updates

The 3500 utilizes a software-defined radio architecture. The software defines almost all of the functionality of the test set from the RF physical layer and up. This software-defined feature allows for future updates and improvements to the capability of the instrument and allows the user to easily add options or update functional improvements in the field, without the need to return the instrument to the factory.

# SPECIFICATION

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## RF SIGNAL GENERATOR

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### FREQUENCY

#### Range

2 MHz to 1 GHz

#### Resolution

1 Hz

#### Accuracy

Same as timebase

### OUTPUT LEVEL

#### Range

T/R port: -50 to -120 dBm/707  $\mu$ V to .224  $\mu$ V

ANT port: -30 to -90 dBm/7071  $\mu$ V to 7.07  $\mu$ V

SWR port: -5 to -65 dBm/125743  $\mu$ V to 126  $\mu$ V

#### Resolution

1 dB/0.1  $\mu$ V

#### Accuracy

$\pm 2$  dB

### SSB PHASE NOISE

-80 dBc/Hz at 20 kHz offset

### SPURIOUS

#### Harmonics

-30 dBc

#### Non-Harmonics

-40 dBc ( $> \pm 20$  kHz offset from carrier) in Band

### RESIDUAL FM

<60 Hz in 300 Hz to 3 kHz BW

Typically <20 Hz

### RESIDUAL AM

<5% in 300 Hz to 3 kHz BW

Typically <1%

### PORT INPUT PROTECTION

ANT port: +20 dBm

SWR port: +20 dBm

T/R port: +44 dBm

### PORT VSWR

ANT port: <1.5 : 1

SWR port: <1.5 : 1

T/R port: <1.25 : 1

### MODULATION FREQUENCY (RATE) - AM AND FM

#### Range

0.0 Hz to 24.0 kHz

#### Resolution

0.1 Hz

#### Accuracy

Timebase  $\pm 2$  Hz

### FM DEVIATION (GEN 1 AND GEN 2)

#### Range

Off, 500 Hz to 50 kHz

### Total Harmonic Distortion

3% (1 kHz rate,  $> 2$  kHz deviation, 300 Hz - 3 kHz BP filter)

### Resolution

10 Hz

### Accuracy

$\pm 10\%$  (2 kHz to 50 kHz deviation, 150 Hz to 5 kHz rate)

Typically <2% (5.6 kHz deviation, 1 kHz rate)

### EXTERNAL FM

#### MIC IN

Level: 1 to 30 mVrms, voiced tone (whistle)

Frequency range: 400 Hz to 1.2 kHz

Slope: Positive voltage yields positive deviation

#### AUDIO IN

Switchable loads: 150 ohms, 600 ohms, High Z

Input levels: 0.05 to 3 Vrms

Frequency range: 300 Hz to 5 kHz

Level sensitivity: 1 kHz/35 mVrms

Slope: Positive voltage yields positive deviation

### AM MODULATION (GEN 1 AND GEN 2)

#### Range

OFF, 0 to 100% (0Hz to 24 kHz)

#### Resolution

0.1%

### Total Harmonic Distortion

3% (20% to 90% mod, 1 kHz rate, 300 Hz to 3 kHz BP filter)

### Accuracy

10% of setting (150 Hz to 5 kHz rate, 10% to 90% Modulation)

### EXTERNAL AM

#### MIC IN

Frequency Range: 400 Hz to 1.2 kHz

#### AUDIO IN

Switchable loads: 150 ohm, 600 ohms, High Z

Input levels: 0.05 to 3 Vrms

Frequency range: 300 Hz to 5 kHz

Level sensitivity: 1% / 35 mVrms nominal

## AFGEN 1 AND AFGEN 2

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### FREQUENCY

#### Range

30 Hz to 5 kHz (spec)

0.0 Hz to 24.0 kHz (usable)

#### Resolution

0.1 Hz

#### Accuracy

Timebase  $\pm 2$  Hz

### OUTPUT LEVEL

#### Load Impedance

600 ohms

#### Range

0 to 1.57 Vrms

## Resolution

0.01 Vrms

## Accuracy

±10%

## Distortion

<3% (1 kHz rate, sine, 300 Hz to 3 kHz)

## HANDSET

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### Frequency Range

300 Hz to 1.2 kHz

### Input Level

0.03 Vrms to 8 Vrms

### PTT Operation

PTT On/Off will change between TRANSMITTER TEST and RECEIVER TEST

PTT ON Low      GND

PTT OFF Hi      Open with Pull-up

## RF RECEIVER

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### FREQUENCY

#### Range

2 MHz to 1 GHz

#### Resolution

1 Hz

#### Accuracy

Same as timebase

### INPUT AMPLITUDE

#### Minimum Input Level, Audio Sensitivity

ANT: -80 dBm (22.4  $\mu$ V), typical 10 dB SINAD (-110 dBm with pre-amp)

T/R: -40 dBm (2236  $\mu$ V), typical, 10 dB SINAD

#### Useable Input Level Range

ANT: -60 dBm (-80 dBm with RF Amp On) to -10 dBm (RF Error, Distortion and Modulation)

ANT: -90 dBm (-110 dBm with RF Amp On) to -10 dBm (RSSI)

T/R: -20 dBm to maximum input level (RF error, distortion and modulation)

T/R: -50 dBm to maximum input level (RSSI)

#### Maximum Input Level

ANT: +20 dBm/0.1 W for 10 seconds

T/R: +43 dBm/20 W (FM) and +37 dBm (AM)

### AM/FM DEMODULATION

#### IF Bandwidth

FM: 5 kHz, 6.25 kHz, 8.33 kHz, 10 kHz, 12.5 kHz, 25 kHz, 30 kHz, 100 kHz, 300 kHz

AM: 5 kHz, 6.25 kHz, 8.33 kHz, 10 kHz, 12.5 kHz, 25 kHz, 30 kHz

#### Audio Filters Bandwidth

NONE, 15 k LP, 5 k LP, 0.3 k LP, 0.3-5 k BP, 0.3 k HP, C-Wt BP, OCIT BP

## Audio Output Level Sensitivity

FM: (3 Vrms/kHz Dev)/IF BW (kHz)  $\pm$  15%

AM: 7 mVrms/% AM  $\pm$ 15%

## Speaker Output

75 dBa min. at 0.5 m, 600 - 1800 Hz, max volume

## VOLUME CONTROL

### Range

0 - 100

### LO Emissions

>-50 dBc

### Quieted Channels

10 frequencies allowed between 2 MHz and 999.999 MHz quieted by no more than 30 dB

## RF TRANSMITTER TEST METERS

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### RF FREQUENCY ERROR METER

#### Range

$\pm$ 200 kHz

#### Resolution

1 Hz

#### Accuracy

Same as timebase  $\pm$ 2 Hz

### RSSI INDICATOR (RF POWER WITHIN RECEIVER IF BANDWIDTH)

#### Display Range

dBm: -120 dBm to +43 dBm (+53 dBm with Ext Attn dB set to 20 dB)

Watts: 10 pW to 20 W (200 W with Ext Attn dB set to 20 dB)

#### Useable Meter Reading RF Level Range

T/R port: -50 dBm to +43 dBm

ANT port (without RF amp on): -90 dBm to -10 dBm

ANT port (with RF amp on): -110 dBm to -10 dBm

#### Resolution

0.01 dBm

#### Accuracy

$\pm$ 3 dB (>-50 dBm into T/R, >-90 dBm into ANT or >-120 dBm into ANT with RF Amp On)

### RF POWER METER (BROADBAND RF POWER INTO T/R PORT)

#### Display Range

Ext Attenuation set to 0 dBm: 0 to 43 dBm (0 to 20 W)

Ext Attenuation set to 20 dBm: 0 to 53 dBm (0 to 200 W)

#### Minimum Input Level

0.10 W/+20 dBm

#### Maximum Input Level

No external attenuator:

20 W/43 dBm for 10 minutes at +25° C or until thermal alarm sounds

With external 50 W attenuator:

50 W/47 dBm average at +25° C

With external 150 W attenuator:

150 W/51.8 dBm average for temperatures up to +25° C, linearly derated to 125 W at 55° C



200 W/53 dBm peak for 30 seconds on / 5 minutes off at +25°C

#### **Resolution**

0.01 W/0.1 dBm

#### **Accuracy**

±1 dB for internal attenuator  
±1.5 dB using external attenuator

#### **FM DEVIATION METER**

##### **Range**

500 Hz to ±100 kHz

##### **Modes**

Peak+, Peak-, (Peak+ - Peak-)/2

##### **Resolution**

1 Hz

##### **Accuracy**

±10% of reading  
Typically <3% ( 1 kHz rate, 5 kHz deviation)

#### **AM PERCENT METER**

##### **Range**

5% to 100%

##### **Modes**

Peak+, Peak-, (Peak+ - Peak-)/2

##### **Resolution**

1%

##### **Accuracy**

±5% of reading, 1 kHz rate, 30% to 90% modulation, 3 kHz LPF

#### **SWR MEASUREMENT**

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##### **Frequency Range**

2.0 MHz to 1000.0 MHz

##### **Span Range**

0.2 MHz to 998 MHz

##### **Start Range**

2.0 MHz to 999.8 MHz

##### **Stop Range**

2.2 MHz to 1000.0 MHz

##### **Frequency Resolution**

0.1 MHz

##### **VSWR Range**

1.00 to 7.00

##### **VSWR Resolution**

0.01

##### **VSWR Accuracy**

±10% of SWR readings (calibrated) <300 MHz  
±20% of SWR readings (calibrated) =300 MHz

##### **Return Loss Range**

0.0 to -50.0 dB

##### **DTF range**

Base on frequency span

Min: 0 to 41 ft.

Max: limited by cable loss

#### **AUDIO METERS**

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##### **AUDIO INPUT (EXT AUDIN)**

##### **Source**

BNC Input on handset

##### **Frequency Range**

300 Hz to 10 kHz

##### **Level Range**

0 V to 5 Vp-p

##### **SINAD METER (WITH 1 KHZ AUDIO)**

##### **Measurement Sources**

Audio in, demod

##### **Audio Frequency**

1 kHz

##### **Display Range**

0 to 40 dB

##### **Resolution**

0.1 dB

##### **Accuracy**

±1.5 dB from 8 to 40 dB

##### **DISTORTION METER**

##### **Measurement Sources**

Audio in, demod

##### **Audio Frequency**

1 kHz

##### **Reading Range**

0% to 100%

##### **Resolution**

0.1%

##### **Accuracy**

±10% from 1% to 20%

#### **TIMEBASE**

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##### **Temperature Stability**

±0.25 ppm at 25°C

±0.5 ppm over temp range

##### **Aging**

1 ppm/year standard

##### **Warm-up time**

3 min.

#### **ENVIROMENTAL / PHYSICAL**

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##### **Overall Dimensions**

231 mm x 285 mm x 70 mm (W x L x D)

9.1 in. x 11.2 in. x 2.8 in.

## **Weight**

8.5 lbs. (3.9 kg); 12 lbs. (5.4 kg) with accessories and softbag

## **Temperature**

Storage: -51°C to +71°C storage

Note: Battery must not be subjected to temperatures below -20° C, nor above +60° C

Operation: -20°C to +55°C

Note: Battery to be charged at temperatures between 0°C and +45°C

## **Humidity**

95% max. (non-condensing) (MIL-PRF-28800F Class 2)

## **Altitude**

4,600 m max. (15,092 ft.) (MIL-PRF-28800F Class 2)

## **Shock, Functional**

30G (MIL-PRF-28800F Class 2)

## **Vibration**

Random 10 - 500 Hz (MIL-PRF-28800F Class 2)

## **Bench Handling**

MIL-PRF-28800F, Class 2

## **COMPLIANCE**

### **ENVIRONMENTAL**

#### **Use**

Pollution degree 2

Mil-PRF-28800F class 2

Salt fog

Splash proof

Acoustic noise

Explosive atmosphere

Fungus resistance

Dust resistance

Drip proof

Solar radiation

### **EMC**

#### **Emissions**

Mil-PRF-28800F

EN61326: 1998 class A

EN61000-3-2

EN61000-3-3

#### **Immunity**

Mil-PRF-28800F

EN61326: 1998

EN61000-6-1

### **SAFETY**

#### **Standard**

UL 61010-1

#### **Usage Environment**

Indoor use, maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% RH at +40°C, Installation Category II, Pollution degree 2

### **AC INPUT POWER (AC TO DC CONVERTER / CHARGER UNIT)**

#### **AC Input Voltage Range**

100 to 240 VAC, 1.5 A max., 47 Hz - 63 Hz

#### **AC Input Voltage Fluctuation**

Less than 10% of the nominal input voltage

#### **Transient Overvoltage**

According to Installation Category II

#### **Usage Environment**

Indoor use, maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% RH at +40°C, Installation Category II, Pollution degree 2

#### **Operating Temperature**

0°C to +40°C

#### **Storage Temperature**

-20°C to + 85°C

#### **EMI**

EN55022 class B, EN61000-3-2 class D

#### **Safety**

UL 1950, CSA 22.2 No. 234 and No.950, IEC 950/EN 60950

### **DC INPUT POWER**

#### **DC Input Voltage Range (DC INPUT CONNECTOR)**

11 VDC to 32 VDC

#### **DC Power Input, Max. (DC INPUT CONNECTOR)**

55 W

#### **DC Power Input, Nominal (DC INPUT CONNECTOR)**

25 W

#### **DC Fuse Requirement (DC INPUT CONNECTOR)**

5A, 32VDC, Type F

### **BATTERY**

#### **Battery Type**

Lithium Ion (Li Ion) battery pack

Note: Battery must not be subjected to temperatures below -20°C , nor above +60°C

#### **Battery Operation Time**

5 hours continuous use

No backlight, duty cycle 80% transmitter and 20% Receiver tests, Auto shutoff if key is not pressed for 10 minutes

7 hours typical use

#### **Battery Charge Time**

4 hours

Note: Battery to be charged at temperatures between +0°C and +45°C only



## VERSIONS, OPTIONS AND ACCESSORIES

When ordering please quote the full ordering number information.

### SUPPLIED ACCESSORIES

Soft-side carrying case  
AC to DC charger with AC power cord  
Audio/microphone handset  
Audio/microphone handset cable  
Short/1 GHz VSWR load TNC female  
Breakout box  
TNC-M to TNC-M cable  
BNC-M to BNC-M cable (2)  
TNC-M to BNC-F adapter (5)  
Fuses 5A 32V (2)  
Accessory case  
Internal battery  
DC cigarette lighter adapter  
Getting Started manual  
CD-ROM manual

### OPTIONAL ACCESSORIES

AC27001 - Hard-side carrying case  
AC27002 - 20 dB, 50 W attenuator kit

#### Kit Includes

20 dB/50 W attenuator  
N-F, BNC-F adapter  
TNC-M, N-M adapter

#### Attenuator Type

Bi-Directional  
DC - 18 GHz

#### Maximum Input Level

50 W/47 dBm average at +25° C

AC27003 - 20 dB/150 W attenuator kit includes

#### Kit Includes

20 dB/150 W attenuator  
N-F, BNC-F adapter  
N-M, BNC-F adapter

#### Attenuator Type

Uni-Directional

#### Maximum Input Level

150 W average for temperatures up to 25 °C, linearly derated to 125 W at 55 °C, horizontal 200 watts peak for 30 seconds ON/ 5 minutes OFF at 25 °C

AC27004 - Extra soft-side carrying case  
AC27005 - Extra battery  
AC27006 - Flip cover  
AC25042 - Antenna, BNC, 50 MHz  
AC25045 - Antenna, BNC, 150 MHz  
AC25043 - Antenna, BNC, 450 MHz  
AC25044 - Antenna, BNC, 800 MHz  
AC27013 - Dual directional coupler kit

### Includes

Dual directional coupler  
10 dB attenuator  
BNC 12 in. cables (2)  
Dual directional coupler type

### Frequency

20 to 200 MHz

### Power

250 W

### Coupler

30 dB

### I/O

Type N input - radio under test transmitter  
Type N output - cable/antenna under test  
BNC output - measuring forward power  
BNC output - measuring reverse power

### EXTENDED STANDARD WARRANTIES FOR 3500

W3500/203 Extended Standard Warranty 36 Months

W3500/205 Extended Standard Warranty 60 Months

### EXTENDED STANDARD WARRANTIES WITH CALIBRATION FOR 3500

W3500/203C Extended Standard Warranty 36 Months with scheduled calibration

W3500/205C Extended Standard Warranty 60 Months with scheduled calibration





For the very latest specifications visit [www.aeroflex.com](http://www.aeroflex.com)

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