Avionics

IFR 6000 Ramp Test Set

The IFR 6000 is a compact, lightweight and weatherproof unit designed for testing transponder modes A/C/S, TCAS I and II as well as DME.

- One main user screen for each test mode
- Detachable antenna
- Large display
- Simple user interface
- Lightweight and compact <8 lbs. (3.6 kg)
- Battery 6 hours plus duration
- Fully FAR part 43 appendix F compliant
- European Elementary and Enhanced Surveillance

**The IFR 6000 features an extremely easy to use interface where every parameter the user commonly needs to view is displayed on screen.**

**Controls**

Dedicated Mode keys for XPDR, DME and TCAS allow quick selection of the operational mode.

The application dependant softkeys and data select/slew keys provide an intuitive man machine interface.

DME mode is provided with dedicated keys for frequency/channel selection and for RF level control.

For frequently varied parameters in DME and TCAS modes, such as Range and Rate, dedicated keys are provided.

**Operational Modes**

Each operational mode has one main user screen. The operational modes are:

XPDR  (Sub-Mode: ADS-B RX, ADS-B TX & GICB)

DME

TCAS 1,2  (Sub-Mode: TIS & TIS-B)

Most tests can be completed without leaving the main user screens. This simplifies the line technician’s testing task.
Mode S and ATCRBS Transponder

Xpdr Auto Test:

Every parameter the user commonly needs to view is displayed on one screen.

The auto test performs all tests defined by FAR Part 43 Appendix F, including the proposed Eurocontrol additional tests.

The tests are tailored automatically according to reported transponder level to avoid erroneous failures.

The test list is selected from the auto test screen. This provides an easy means of selecting any of the individual tests that comprise the auto test.

Tests on the 2nd screen (not shown) include:

13 UF21
14 UF24
15 ELEMENTARY SURVEILLANCE 1
16 ELEMENTARY SURVEILLANCE 2
15 ENHANCED SURVEILLANCE

Individual failure items are then displayed and may be selected for display of details.

User selects config required for test.

If the class of the transponder is unknown, the generic config may be selected which applies to the widest limits.

The test set will automatically determine the Mode S transponder level.

The selected config parameters may be displayed by pressing the INFO softkey.

Eight predetermined configs are provided to meet the currently fielded transponder test needs.

Individual failure details are displayed in easy to understand terms.

Individual tests may be reviewed for failures which are identified by an arrow symbol.

If more failure information is required the user can press the MORE INFO softkey.
The Eurocontrol Elementary Surveillance DAP's (Downlink Aircraft Parameters) are displayed on two screens.

Eurocontrol Enhanced Surveillance DAP's are displayed on one screen.

No more HEX data field interpretation!

All Mode S Format tests display parameter in engineering units.

Comprehensive II / SI code and lockout timer test

DME

- RF level control for track sensitivity tests
- Supports all DME/TACAN channels selectable in VOR paired channels
- Full UUT measured parameters are displayed.

TCAS

TCAS types...
- TCAS 1 MODE C
- TCAS 2 ATCRBS
- TCAS 2 MODE S

The Auto Altitude feature interrogates Mode S XPDR of A/C under test to obtain current altitude.

Select pre-stored named scenarios directly from the auto test screen.
**ADS-B and GICB**

**ADS-B RX:** Used to monitor extended squitter from transponders and 1090 MHz ADS-B emitters.

**ADS-B TX:** Used to generate extended squitter, simulating transponders and 1090 MHz ADS-B emitters.

**GICB:** Used to monitor DAP’s (all fields).

---

**ADS-B RX:**

The BDS LIST shows BDS formats supported.

A symbol preceding the BDS number indicates that extended squitter has been captured.

The BDS SELECT key selects individual BDS numbers.

The BDS DATA key displays the BDS DATA screen for the selected BDS number.

---

**ADS-B TX:**

The BDS LIST shows BDS formats supported.

The BDS SELECT key selects individual BDS numbers.

The BDS ON/OFF key sets a symbol preceding the selected BDS number and enables the BDS format for squittering via DF17, DF18, or DF19 extended squitters.

The BDS DATA key displays the BDS DATA screen for the selected BDS number.

---

**GICB:**

BDS DATA screens display full content of the selected BDS format being received via GICB DF20 or DF21 in RTCA/ICAO engineering units.
TIS
Up to 5 static intruders may be simulated relative to the A/C (UUT).

TIS-B:
The user enters the A/C (UUT) LAT/LONG & heading.
Up to 5 static intruders may be simulated relative to the A/C (UUT).

General
Radiated Testing:
The IFR 6000 is supplied with a lightweight fully sealed directional antenna that may be test set mounted, hand held or tripod mounted.

Direct Connect Testing:
The IFR 6000 may be directly connected to the UUT via a supplied RF coax cable via the RF I/O port.

Transit Case:
The IFR-6000 is supplied in a rugged plastic transit case which provides stowage for the test set, directional antenna, RF coax cable, antenna shield, breakout box, and power supply/charger.

**SPECIFICATION**

A 5-minute warm-up period is required for all specifications.

**OUTPUT FREQUENCY**

**REPLY FREQUENCY**

Range
962 to 1213 MHz

Accuracy
± 10 kHz

**OUTPUT LEVEL**

**ANTENNA PORT**

Range
-65 to -2 dBm at Antenna port

Resolution
1 dB

Accuracy
± 2 dB

Distance to UUT antenna
6 to 300 ft with supplied antenna

**RF I/O PORT**

Range
-115 to -47 dBm

Resolution
1 dB

Accuracy
-95 dBm to -47 dBm ± 1 dB

Accuracy
-115 dBm to <-95 dBm ± 2 dB

**REPLY PULSE SPACING**

P1 to P2
12 µs ± 100 ns (X Channel) @ 50% peak

P1 to P2
30 µs ± 100 ns (Y Channel) @ 50% peak

**REPLY PULSE WIDTH**

P1/P2
3.5 µs ± 0.5 µs
**ECHO REPLY**

<table>
<thead>
<tr>
<th>Control</th>
<th>On/Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position</td>
<td>30 nmi ± 1 nmi</td>
</tr>
<tr>
<td>Amplitude</td>
<td>-11 dB ± 1 dB relative to reply level</td>
</tr>
</tbody>
</table>

**REPLY PULSE RISE AND FALL TIMES**

**ALL PULSES**

<table>
<thead>
<tr>
<th>Rise Time</th>
<th>2.5 µs ± 0.25 µs (10% to 90%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Time</td>
<td>2.5 µs ± 0.25 µs (90% to 10%)</td>
</tr>
</tbody>
</table>

**REPLY DELAY**

**X CHANNEL**

| Fixed Reply Delay  | 50 µs ± 100 ns                 |

**Y CHANNEL**

| Fixed Reply Delay  | 56 µs ± 100 ns                 |

**RANGE DELAY**

**X AND Y CHANNEL**

<table>
<thead>
<tr>
<th>Range</th>
<th>0 to 450.00 nmi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>0.01 nmi</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 0.01 nmi</td>
</tr>
</tbody>
</table>

**SQUEWTER**

<table>
<thead>
<tr>
<th>PRF</th>
<th>2700 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>± 2%</td>
</tr>
<tr>
<td>Distribution</td>
<td>Per ARINC 568</td>
</tr>
</tbody>
</table>

**REPLY EFFICIENCY**

<table>
<thead>
<tr>
<th>Range</th>
<th>0 to 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>1% increments</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 0.5%</td>
</tr>
</tbody>
</table>

**IDENT TONE**

<table>
<thead>
<tr>
<th>Selection</th>
<th>Selectable three letter code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>1350 Hz</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 2 Hz</td>
</tr>
</tbody>
</table>

**UUT MEASUREMENTS**

**ERP**

<table>
<thead>
<tr>
<th>Range</th>
<th>+47 to +64 dBm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>0.1 dB</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 2 dB</td>
</tr>
</tbody>
</table>

**DIRECT CONNECTION PEAK PULSE POWER**

<table>
<thead>
<tr>
<th>Range</th>
<th>+47 to +64 dBm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>0.1 dB</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 1 dB</td>
</tr>
</tbody>
</table>

**FREQUENCY**

<table>
<thead>
<tr>
<th>Range</th>
<th>1025.00 to 1150.00 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>10 kHz</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 20 kHz</td>
</tr>
</tbody>
</table>

**INTERROGATION PULSE WIDTH**

**P1 AND P2 PULSE WIDTHS**

<table>
<thead>
<tr>
<th>Range</th>
<th>2.00 to 5.00 µs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>1 ns</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 50 ns</td>
</tr>
</tbody>
</table>

**INTERROGATION PULSE SPACING**

**P1 to P2 Spacing**

<table>
<thead>
<tr>
<th>Range</th>
<th>10 to 14 µs (X Channel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>34 to 38 µs (Y Channel)</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 20 ns</td>
</tr>
</tbody>
</table>

**INTERROGATION PRF**

<table>
<thead>
<tr>
<th>Range</th>
<th>1 to 300 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>1 Hz</td>
</tr>
<tr>
<td>Accuracy</td>
<td>± 2 Hz</td>
</tr>
</tbody>
</table>

**TRANSPONDER MODE SPECIFICATIONS**

**SIGNAL GENERATOR**

**RF OUTPUT FREQUENCY**

| Interrogation Frequency | 1030 MHz                       |
### Accuracy

<table>
<thead>
<tr>
<th>RF Output Level</th>
<th>± 10 kHz</th>
</tr>
</thead>
</table>

### ANTENNA PORT

MTL + 6 dB typical, automatically controlled for a MTL range of -83 to -68 dBm

### Range

-65 to -2 dBm at antenna port

### Resolution

0.5 dB

### Accuracy

± 2 dB

### Distance to UUT antenna

6 to 200 ft with supplied antenna

### RF I/O PORT

MTL + 6 dB typical, automatically controlled

### Range

-115 to -47 dBm

### Resolution

0.5 dB

### Accuracy

-95 to -47 dBm, ± 1 dB

### Accuracy

-115 to <-95 dBm, ± 2 dB

### ATCRBS/MODE S INTERROGATION PULSE SPACING

<table>
<thead>
<tr>
<th>MODE A</th>
<th>P1 to P2</th>
<th>2.00 μs ± 25 ns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P1 to P3</td>
<td>8.00 μs ± 25 ns</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODE C</th>
<th>P1 to P2</th>
<th>2.00 μs ± 25 ns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P1 to P3</td>
<td>21.00 μs ± 25 ns</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODE S</th>
<th>P1 to P2</th>
<th>2.00 μs ± 25 ns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P1 to P6</td>
<td>3.50 μs ± 25 ns</td>
</tr>
<tr>
<td></td>
<td>P1 to SPR</td>
<td>4.75 μs ± 25 ns</td>
</tr>
<tr>
<td></td>
<td>P5 to SPR</td>
<td>0.40 μs ± 50 ns</td>
</tr>
</tbody>
</table>

### INTERROGATION PULSE WIDTHS

| MODE A,C,S,INTERMODE | P1, P2, P3 | 0.80 μs ± 50 ns |

| MODE S | P6 (Short DPSK Block) | 16.25 μs ± 50 ns |
|        | P6 (Long DPSK Block)  | 30.25 μs ± 50 ns |
|        | P5                   | 0.80 μs ± 50 ns |

### INTERROGATION PULSE RISE AND FALL TIMES

<table>
<thead>
<tr>
<th>ALL MODES</th>
<th>Rise Time</th>
<th>50 to 100 ns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall Time</td>
<td>50 to 200 ns</td>
</tr>
</tbody>
</table>

### PHASE MODULATION

<table>
<thead>
<tr>
<th>ALL MODES</th>
<th>Transition Time</th>
<th>&lt; 80 ns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phase Shift</td>
<td>180° ± 10°</td>
</tr>
</tbody>
</table>

### SLS LEVELS

#### ATCRBS

SLS Level (P2)
-9 dB, -1 to +0 dB relative to P1 level
0 dB, -0 to +1 dB relative to P1 level
Off

#### MODE S

SLS Level (P5)
-12 dB, -1 to +0 dB relative to P6 level
+3 dB, -0 to +1 dB relative to P6 level
Off

Note: SLS level is automatically controlled in the SLS LEVEL test.

### INTERROGATION TEST SIGNALS

#### MODE S

PRF
50 Hz ± 5 Hz

#### ATCRBS

PRF
235 Hz ± 5 Hz

---

For the very latest specifications visit www.aeroflex.com
**ULIT MEASUREMENTS**

### ERP (@ 1090 MHz)

**Range**  
+ 45.5 to + 59 dBm (35.5 to 800 watts)

**Resolution**  
0.1 dB

**Accuracy**  
± 2 dB

**Direct Connection Peak Pulse Power (@1090MHz)**

**Range**  
+ 46.5 to + 59 dBm (45 to 800 watts)

**Resolution**  
0.1 dB

**Accuracy**  
± 1 dB

### TRANSMITTER FREQUENCY

**Range**  
1087.000 to 1093.000 MHz

**Resolution**  
10 kHz

**Accuracy**  
± 50 kHz

### RECEIVER SENSITIVITY, RADIATED MTL

**Range**  
-67 to -79 dBm into 0 dBi antenna

**Resolution**  
0.1 dB

**Accuracy**  
± 2 dB, typical

### RECEIVER SENSITIVITY, DIRECT CONNECTION MTL

**Range**  
-67 to -79 dBm

**Resolution**  
0.1 dB

**Accuracy**  
± 2 dB

### REPLY DELAY

**ATCRBS**

**Range**  
1.80 to 7.00 µs

**Resolution**  
10 ns

**Accuracy**  
± 50 ns

**Reply Delay, Mode S and ATCRBS Mode S All-Call**

**Range**  
125.00 to 131.00 µs

**Resolution**  
10 ns

**Accuracy**  
± 50 ns

### PULSE AMPLITUDE VARIATION

**Range, Mode S (Relative to P1)**  
+3 to -3 dB

**Range, ATCRBS (Relative to F1)**  
+3 to -3 dB

**Resolution**  
0.1 dB (0.01 dB via RCI)

**PULSE DELAY JITTER**

**ATCRBS**

**Range**  
0.00 to 2.30 µs

**Resolution**  
1 ns

**Accuracy**  
± 20 ns

**MODE S AND ATCRBS MODE S ALL-CALL**

**Range**  
0.00 to 6.00 µs

**Resolution**  
1 ns

**Accuracy**  
± 20 ns

### PULSE SPACING

**F1 TO F2**

**Range**  
19.70 to 21.60 µs

**Resolution**  
1 ns

**Accuracy**  
± 20 ns

**MODE S PREAMBLE**

**Range, P1 to P2**  
0.8 to 1.2 µs

**Range, P1 to P3**  
3.3 to 3.7 µs

**Range, P1 to P4**  
4.3 to 4.7 µs

**Resolution**  
1 ns

**Accuracy**  
± 20 ns

**PULSE WIDTHS**

**F1 AND F2**

**Range**  
0.25 to 0.75 µs

**Resolution**  
1 ns

**Accuracy**  
± 20 ns
**Accuracy**
\[ \pm 0.5 \text{ dB} \]

**DF 11 SQUITTER PERIOD**

Range
\[ 0.10 \text{ to } 4.88 \text{ sec} \]

Resolution
\[ 10 \text{ } \mu \text{s} \]

Accuracy
\[ \pm 10 \text{ } \mu \text{s} \]

**DIVERSITY ISOLATION**

Range
\[ 0 \text{ to } >20 \text{ dB (Depending on Test Distance)} \]

Test Distance
\[ 1.83 \text{ m (6ft) to 28.96m (95ft)} \]

Resolution
\[ 0.1 \text{ dB} \]

Accuracy
\[ \pm 3 \text{ dB} \]

**TCAS MODE SPECIFICATIONS**

**SIGNAL GENERATOR**

**OUTPUT FREQUENCY**

REPLY FREQUENCY
\[ 1090 \text{ MHz} \]

Accuracy
\[ \pm 10 \text{ kHz} \]

**OUTPUT LEVEL (SIMULATED ERP)**

Antenna Port
\[ \text{Note} 1: \text{ Radiated power at } 0\text{dB} \text{ UUT antenna} \]
\[ 68 \text{ dBm typical, automatically controlled} \]

Range
\[ -65 \text{ to } -2 \text{ dBm at Antenna port} \]

Resolution
\[ 0.5 \text{ dB} \]

Accuracy
\[ \pm 1 \text{ dB} \]

Distance to UUT antenna
\[ 6 \text{ to } 300 \text{ ft with supplied antenna} \]

**RF I/O PORT**

Automatic mode
\[ -68 \text{ dBm} \]

Manual mode Range
\[ -115 \text{ to } -47 \text{ dBm} \]

Resolution
\[ 0.5 \text{ dB} \]

Accuracy
\[ -95 \text{ to } -47 \text{ dBm}, \pm 1 \text{ dB} \]

Accuracy
\[ -115 \text{ to } < -95 \text{ dBm}, \pm 2 \text{ dB} \]

**REPLY PULSE WIDTHS**

**MODE C**

All Pulses
\[ 0.45 \text{ } \mu \text{s} \pm 50 \text{ ns} \]

**MODE S**

P1 through P4
\[ 0.50 \text{ } \mu \text{s} \pm 50 \text{ ns} \]

D1 through D112
\[ 0.50 \text{ } \mu \text{s} \pm 50 \text{ ns, 1 ms chip width} \]

Reply Modes
TCAS I / II Mode C (with altitude reporting)
TCAS II Mode S formats 0, 11, 16

**REPLY PULSE AMPLITUDES**

**ATCRBS**
\[ \pm 1 \text{ dB relative to } F1 \]

Mode S
\[ \pm 1 \text{ dB relative to } P1 \]
**REPLY PULSE RISE AND FALL TIMES**

ALL MODES

Rise Time
50 to 100 ns

Fall Time
50 to 200 ns

**PERCENT REPLY**

Range
0 to 100%

Resolution
10%

Accuracy
± 1%

**REPLY DELAY**

ATCRBS
3.0 µs ± 50 ns

Mode S
128 µs ± 50 ns

**RANGE DELAY**

Range
0 to 99 nmi

Resolution
0.1 nmi

Accuracy
± 0.02 nmi

**RANGE RATE**

Range
-1200 to +1200 kts

Resolution
10 kts

Accuracy
10%

**ALTIMETER RANGES**

Range
-1000 to 126,000 ft

Resolution, Mode C
100 ft

Resolution, Mode S
25 ft

**ALTIMETER RATE**

Range
-10,000 to +10,000 fpm

Resolution
100 fpm

Accuracy
10%

**SQUITTER**

Control
On/Off

Rate
1.0 second

**RECEIVER**

**SENSITIVITY (SIMULATED MTJ)**

RADIATED

Automatic mode
-72 dBm at 10 nMi range using supplied antenna

Accuracy
± 2.0 dB

RF I/O PORT

Range (Level Controlled Automatically)
-72 dBm

Range (Level Controlled Manually)
-85 to -40 dBm in 0.5 dB steps

Accuracy
± 1.0 dB

**UUT MEASUREMENTS**

**ERP**

ATCRBS

Range
+43 to +58 dBm (20 to 631 watts)

Resolution
0.1 dB

Accuracy
± 2 dB

Mode S

Range
+43 to +58 dBm (20 to 631 watts)

Resolution
0.1 dB

Accuracy
± 1 dB

**DIRECT CONNECTION PEAK PULSE POWER (@1030MHZ)**

ATCRBS

Range
+43 to +58 dBm (20 to 631 watts)

Resolution
0.1 dB

Accuracy
± 1 dB

Mode S

Range
+43 to +58 dBm (20 to 631 watts)

Resolution
0.1 dB

Accuracy
± 1 dB

**3.33 FREQUENCY**

Range
1029.900 to 1030.100 MHz

Resolution
1 kHz
### Accuracy
- ± 10 kHz

### TCAS BROADCAST INTERVAL
- **Range**: 1.0 to 12.0 sec
- **Resolution**: 0.1 sec
- **Accuracy**: ± 0.2 sec

### WHISPER-SHOUT INTERVAL
- **Range**: 0.53 to 1.27 Sec
- **Resolution**: 10 µs
- **Accuracy**: ± 20 µs

### WHISPER-SHOUT STEP SPACING
- **Range**: 0.1 µs to 1.27 sec
- **Resolution**: 0.1 µs
- **Accuracy**: ± 0.2 µs

### MISCELANEOUS INPUT/OUTPUTS
- **RF I/O**
  - **Type**: Input/Output
  - **Impedance**: 50 Ω typical
  - **Maximum Input Level**: 4 kW peak, 10 W average
  - **VSWR**: < 1.3:1 Antenna
- **Type**: Input/Output
  - **Impedance**: 50 W typical
  - **Maximum Input Level**: 10 W peak, 1/2 W average
- **TEST ANTENNA**
  - **VSWR**: < 1.5:1
  - **Gain**: 10 dB, Typical

### TIME BASE (TCXO)
- **Temperature Stability**: ± 1 ppm
- **Aging**: ± 1 ppm per year

### Accuracy
- ± 1 ppm
- **Test Limit**: ± 0.3 ppm

### BATTERY
- **Type**: Li Ion
- **Duration**: > 4 hrs continuous operation, > 6 hrs, Typical

### INPUT POWER (TEST SET)
- **Input Range**: 11 VDC to 32 VDC
- **Power Consumption**: 55 W Maximum, 16 W Nominal at 18 VDC with charged battery
- **Fuse Requirements**: 5 A, 32 VDC, Type F

### INPUT POWER (SUPPLIED EXTERNAL AC TO DC CONVERTER)
- **Input Range**: 100 to 250 VAC, 1.5 A Max, 47-63 Hz
- **Mains Supply Voltage Fluctuations**: ≤ 10% of the nominal voltage
- **Transient Overvoltages**: According to Installation Category II

### ENVIRONMENTAL (TEST SET)
- **Use**: Pollution Degree 2
- **Altitude**: ≤ 4800 meters
- **Operating Temperature**
  - **NOTE 3**: -20°C to 55°C
  - **Storage Temperature**
  - **NOTE 4**: -30°C to 71°C
- **Relative Humidity**: 95% ±5% from 5° to 30°C, 75% ±5% from 30° to 40°C, 45% ±5% from 40° to 55°C

### ENVIRONMENTAL (SUPPLIED EXTERNAL AC TO DC CONVERTER)
- **Use**: Indoors
- **Altitude**: ≤ 10,000 meters
- **Operating Temperature**: 0° to 40°C
- **Storage Temperature**: -20°C to 71°C
PHYSICAL CHARACTERISTICS

DIMENSIONS

Height
11.2 inches (28.5 cm)

Width
9.1 inches (23.1 cm)

Depth
2.7 inches (6.9 cm)

Weight: (Test set only)
< 8 lbs. (3.6 kg)

SUPPLEMENTAL INFORMATION

Test Set Certifications

<table>
<thead>
<tr>
<th>Attribute</th>
<th>MIL-PRF-28800F</th>
<th>Class 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude, operating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude, not operating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bench Handling</td>
<td>MIL-PRF-28800F</td>
<td>Class 2</td>
</tr>
<tr>
<td>Drip-proof</td>
<td>MIL-PRF-28800F</td>
<td>Class 2</td>
</tr>
<tr>
<td>Explosive Atmosphere</td>
<td>MIL-STD-810F</td>
<td>Method 511.4, Procedure 1</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>MIL-PRF-28800F</td>
<td>Class 2</td>
</tr>
<tr>
<td>Shock, Functional</td>
<td>MIL-PRF-28800F</td>
<td>Class 2</td>
</tr>
<tr>
<td>Vibration Limits</td>
<td>MIL-PRF-28800F</td>
<td>Class 2</td>
</tr>
<tr>
<td>Temp, operating</td>
<td>MIL-PRF-28800F</td>
<td>Class 2</td>
</tr>
<tr>
<td>Temp, not operating</td>
<td>MIL-PRF-28800F</td>
<td>Class 2</td>
</tr>
<tr>
<td>Transit Drop</td>
<td>MIL-PRF-28800F</td>
<td>Class 2</td>
</tr>
</tbody>
</table>

Safety Compliance

UL-61010-1
EN 61010-1
CSA 22.2 No 61010-1
EN 61326

EMC

EXTER-NAL AC-DC CONVERTER CERTIFICATIONS

Safety Compliance

UL 1950 DS
CSA 22.2 No. 234
VDE EN 60 950

EMI/RFI Compliance

FCC Docket 20780 Curve “B”

EMC

EN 61326

TRANSIT CASE CERTIFICATIONS

Drop Test

FED-STD-101C Method 5007.1 Paragraph 6.3, Procedure A, Level A

Notes

NOTE 1 Simulates a 50.5 dBm XPDR ERP at 10 nMi range.
NOTE 2 Level automatically controlled based on actual distance to UUT antenna.
NOTE 3 Battery charging temperature range: 5°C to 40°C (controlled by internal charger).
NOTE 4 Li Ion Battery must be removed below -20°C and above 60°C.
NOTE 5 Temperature range extended to -20°C to 55°C.
NOTE 6 Temperature range reduced to -30°C to 71°C.

VERSIO-NES AND ACCESSORIES

When ordering please quote the full ordering number information.

Ordering Numbers | Versions
--- | ---
6000-110 | IFR 6000 Mode A/C/S Transponder and DME Ramp Test Set, with US Mains Leads
6000-220 | IFR 6000 Mode A/C/S Transponder and DME Ramp Test Set, with European Mains Leads
6000OPT2 | TCAS (TIS, TIS-B)
6000OPT3 | ADS-B

Extended Standard Warranties with Calibration for 6000

W6000/203C | Extended standard warranty 36 months with scheduled calibration
W6000/205C | Extended standard warranty 60 months with scheduled calibration

Accessories for 6000

AC0820 | Desk Top Stand
AC0826 | Tripod
AC0825PP | IFR 6000 Operation Manual - Paper
AC0825CD | IFR 6000 Operation Manual - Cd
AC24007 | Tripod Dolly
AC24006 | Tripod Stand