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 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-Modes: ADS-B MON, ADS-B GEN & GICB)
- DME
- TCAS 1, 2 (Sub-Modes: TIS)

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
17 ENHANCED SURVEILLANCE

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

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

The Eurocontrol Elementary Surveillance DAP’s (Downlink Aircraft Parameters) are displayed on two screens.

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

The 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

ADS-B and GICB

ADS-B MON: Used to monitor DF17 extended squitter from transponders and DF18 extended squitter from 1090 MHz ADS-B emitters.

ADS-B GEN: Used to generate DF17/DF18 extended squitter, simulating transponders and 1090 MHz ADS-B emitters.

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

DME

All the user needs are on one screen.

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

For the very latest specifications visit www.aeroflex.com
ADS-B MON:
The BDS DATA screen displays full content of selected BDS format being received via DF17 or DF18 extended squitters.

The BDS ENABLE/DISABLE key enables or disables the selected BDS number for squittering via DF17 or DF18 extended squitters. The BDS DATA key displays the BDS DATA screen for the selected BDS number.

ADS-B GEN:
BDS DATA screens display full content of the selected BDS format in RTCA/ICAO engineering units. The NEXT & PREV PARAM keys select data fields for editing via the data slew keys.

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).

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

DME MODE SPECIFICATIONS

SIGNAL GENERATOR

A 3-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
-67 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

Control
On/Off

Position
30 nmi (±1 nmi)

Amplitude
-11 dB (±1 dB) relative to reply level

REPLY PULSE RISE AND FALL TIMES

ALL PULSES

Rise Time
2.5 µs (±0.25 µs) (10% to 90%)

Fall Time
2.5 µs (±0.25 µs) (90% to 10%)

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

Range
0 to 450.00 nmi

Resolution
0.01 nmi

Accuracy
±0.01 nmi

RANGE RATE

X AND Y CHANNEL

Range
10 to 6500 kts

Resolution
1 kts

Accuracy
±0.01% typical, tested to ±0.5%

SQUIRTTER

PRF
2700 Hz

Accuracy
±2%

Distribution
Per ARINC 568

For the very latest specifications visit www.aeroflex.com
**REPLY EFFICIENCY**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>0 to 100%</td>
</tr>
<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>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection</td>
<td>Selectable three letter code</td>
</tr>
<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>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>+47 to +64 dBm</td>
</tr>
<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>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>+47 to +64 dBm</td>
</tr>
<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>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>1025.00 to 1150.00 MHz</td>
</tr>
<tr>
<td>Resolution</td>
<td>10 kHz</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±10 kHz</td>
</tr>
</tbody>
</table>

**INTERROGATION PRF**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>1 to 300 Hz</td>
</tr>
<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**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interrogation Frequency</td>
<td>1030 MHz</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±10 kHz</td>
</tr>
</tbody>
</table>

**RF OUTPUT LEVEL**

**ANTENNA CONNECTOR**

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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>-67 to -2 dBm at antenna connector</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.5 dB</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±2 dB</td>
</tr>
</tbody>
</table>

**Distance to UUT antenna**

6 to 200 ft with supplied antenna

**RF I/O CONNECTOR**

MTL + 6 dB typical, automatically controlled

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>-115 to -47 dBm</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.5 dB</td>
</tr>
<tr>
<td>Accuracy</td>
<td>-95 to -47 dBm, ±1 dB</td>
</tr>
<tr>
<td>Accuracy</td>
<td>-115 to &lt;-95 dBm, ±2 dB</td>
</tr>
</tbody>
</table>

**ATCRBS/MODE S INTERROGATION PULSE SPACING**

**MODE A**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1 to P2</td>
<td>2.00 µs (±25 ns)</td>
</tr>
<tr>
<td>P1 to P3</td>
<td>8.00 µs (±25 ns)</td>
</tr>
</tbody>
</table>

**MODE C**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1 to P2</td>
<td>2.00 µs (±25 ns)</td>
</tr>
<tr>
<td>P1 to P3</td>
<td>21.00 µs (±25 ns)</td>
</tr>
</tbody>
</table>

**MODE S**

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

**INTERROGATION PULSE WIDTH**

**P1 AND P2 PULSE WIDTHS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>2.00 to 5.00 µs</td>
</tr>
<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>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1 to P2</td>
<td>10 to 14 µs (X Channel)</td>
</tr>
<tr>
<td>P1 to P2 Spacing</td>
<td>34 to 38 µs (Y Channel)</td>
</tr>
<tr>
<td>Resolution</td>
<td>10 ns</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±20 ns</td>
</tr>
</tbody>
</table>
**INTERMODE INTERROGATION PULSE SPACING**

<table>
<thead>
<tr>
<th>Mode</th>
<th>P1 to P3</th>
<th>8.00 µs (±25 ns)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P1 to P4</td>
<td>10.00 µs (±25 ns)</td>
</tr>
</tbody>
</table>

**MODE C**

| P1 to P3 | 21.00 µs (±25 ns) |
| P1 to P4 | 23.00 µs (±25 ns) |

**INTERROGATION PULSE WIDTHS**

| Mode | 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) |

**INTERMODE**

| P4 (Short) | 0.80 µs (±50 ns) |
| P4 (Long)  | 1.60 µs (±50 ns) |

**INTERROGATION PULSE RISE AND FALL TIMES**

**ALL MODES**

| Rise Time | 50 to 100 ns |
| Fall Time | 50 to 200 ns |

**PHASE MODULATION**

**ALL MODES**

| Transition Time | ≤80 ns |
| Phase Shift     | 180° (±10°) |

**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    | 235 Hz (±5 Hz) |

**UIJT 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 (@ 1090 MHz)*

| 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 | -79 to -67 dBm into 0 dBi antenna |
|       | Resolution | 0.1 dB |
|       | Accuracy   | ±2 dB, typical |

**RECEIVER SENSITIVITY, DIRECT CONNECTION MTL**

| Range | -79 to -67 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

**ATCRBS**

**Range**
- 0.00 to 2.30 µs

**Resolution**
- 1 ns

**Accuracy**
- ±20 ns

**PULSING 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)

**Accuracy**
- ±0.5 dB

**DF 11 SQUEWTER PERIOD**

**Range**
- 0.10 to 4.88 sec

**Resolution**
- 10 ms

**Accuracy**
- ±3 dB

**DIVERSITY ISOLATION**

**Range**
- 0 to >20 dB (Depending on Test Distance)

**Test Distance**
- 1.83 m (6ft) to 28.96 m (95 ft)

**Resolution**
- 0.1 dB

**Accuracy**
- ±3 dB

**TCAS MODE SPECIFICATIONS**

**SIGNAL GENERATOR**

**OUTPUT FREQUENCY**

**Replay Frequency**
- 1090 MHz

**Accuracy**
- ±10 kHz

**OUTPUT LEVEL (SIMULATED ERP)**

**Antenna Connector**

- Radiated power at 0dBi UUT antenna
  - -68 dBm typical @ 10 Nmi Range, automatically controlled

**Range**
- -67 to -2 dBm at Antenna connector

**Resolution**
- 0.5 dB

**Accuracy**
- ±2 dB

**Distance to UUT antenna**
- 6 to 300 ft with supplied antenna

**RF I/O CONNECTOR**

- **Automatic mode**
  - -68 dBm @ 10 Nmi Range, automatically controlled

- **Manual mode Range**
  - -115 to -47 dBm

**Resolution**
- 0.5 dB

**Accuracy**
- -95 to -47 dBm, ±1 dB

- -115 to <-95 dBm, ±2 dB
### Reply Pulse Spacing

<table>
<thead>
<tr>
<th>MODE</th>
<th>F1 to F2</th>
<th>20.30 µs (±25 ns)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F1 to C1</td>
<td>1.45 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>F1 to A1</td>
<td>2.90 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>F1 to C2</td>
<td>4.35 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>F1 to A2</td>
<td>5.80 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>F1 to C4</td>
<td>7.25 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>F1 to A4</td>
<td>8.70 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>F1 to B1</td>
<td>11.60 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>F1 to D1</td>
<td>13.05 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>F1 to B2</td>
<td>14.50 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>F1 to D2</td>
<td>15.95 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>F1 to B4</td>
<td>17.40 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>F1 to D4</td>
<td>18.85 µs (±25 ns)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODE</th>
<th>P1 to P2</th>
<th>1.00 µs (±25 ns)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P1 to P3</td>
<td>3.50 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>P1 to P4</td>
<td>4.50 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>P1 to D1</td>
<td>8.00 µs (±25 ns)</td>
</tr>
<tr>
<td></td>
<td>D1 to Dn (n=2 to 112)</td>
<td>1.00 µs times (n-1) (±25 ns)</td>
</tr>
</tbody>
</table>

### Reply Pulse Amplitudes

<table>
<thead>
<tr>
<th>ATCRBS</th>
<th>±1 dB relative to F1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode S</td>
<td>±1 dB relative to P1</td>
</tr>
</tbody>
</table>

### 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 260 nmi
- **Resolution**: 0.1 nmi
- **Accuracy**: ±0.02 nmi

### Range Rate

- **Range**: -1200 to +1200 kts
- **Resolution**: 10 kts
- **Accuracy**: 10%

### Altitude Range

- **Range**: -1000 to 126,000 ft
- **Resolution, Mode C**: 100 ft
- **Resolution, Mode S**: 25 ft

### Altitude Rate

- **Range**: -10,000 to +10,000 fpm
- **Resolution**: 100 fpm
- **Accuracy**: 10%
SSQUITTEE

Control
On/Off

Rate
0.8 to 1.2 seconds, randomly distributed

RECEIVER

PULSE SPACING

ATCRBS (Mode C All Call)
-S1 to P1 2.0 µs
- Accepts ≤±200 ns
- Rejects ≥±1.0 µs
-P1 to P3 21.0 µs
- Accepts ≤±200 ns
- Rejects (<10% Replies) ≥±1.0 µs
-P1 to P4 23.0 µs
- Accepts ≤±200 ns
- Rejects (<10% Replies) ≥±1.0 µs

Mode S
-P1 to P2 2.0 µs
- Accepts ≤±200 ns
- Rejects (<10% Replies) ≥±1.0 µs
-P1 to SPR 4.75 µs
- Accepts ≤±200 ns
- Rejects (<10% Replies) ≥±1.5 µs

SUPPRESSION

ATCRBS (P2 or S1)
- >0.5dB above level of P1 <10% Replies

UIT MEASUREMENTS

ERP (@ 1030 MHz)

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 ±2 dB

DIRECT CONNECTION PEAK PULSE POWER (@ 1030 MHz)

ATCRBS
- Range +43 to +58 dBm (20 to 631 watts)
- Resolution 0.1 dB
- Accuracy ±1 dB

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

MISCELLANEOUS 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 Ω typical
- Maximum Input Level 10 W peak
- 0.5 W average

VIDEO
- Type Output
- Impedance 50 Ω typical
- Generate Video Level 1.1 Vpp (±0.4 V) into 50 Ω
- Receive Video Level Proportional to IF level
- Baseline ±0.5 V referenced to ground

TEST ANTENNA
- VSWR <1.5:1
Gain
6 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 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 to 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
MKT 2 -20°C to 55°C
Storage Temperature
MKT 2 -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**

- Altitude, operating: MIL-PRF-28800F, Class 2
- Altitude, not operating: MIL-PRF-28800F, Class 2
- Bench Handling: MIL-PRF-28800F, Class 2
- Blowing Dust: MIL-STD-810F, Method 510.4, Procedure 1
- Drip-proof: MIL-PRF-28800F, Class 2
- Explosive Atmosphere: MIL-STD-810F, Method 511.4, Procedure 1
- Relative Humidity: MIL-PRF-28800F, Class 2
- Shock, Functional: MIL-PRF-28800F, Class 2
- Vibration Limits: MIL-PRF-28800F, Class 2
- Temp, operating: MIL-PRF-28800F, Class 2
- Temp, not operating: MIL-PRF-28800F, Class 2
- Transit Drop: MIL-PRF-28800F, Class 2
- Safety Compliance: UL-61010B-1, EN 61010-1, CSA 22.2 No 61010-1
- EMC: EN 61326

**External 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”, EN 61326

**Transit Case Certifications**

- Falling Dart Impact: ATA 300, Category I
- Vibration, Sweep: ATA 300, Category I
- Simulated Rainfall: MIL-STD-810F, Method 506.4, Procedure II of 4.1.2
- Immersion: MIL-STD-810F, Method 512.4
VERSIONS AND ACCESSORIES

When ordering please quote the full ordering number information.

### Ordering Numbers

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<td>6000-110</td>
<td>IFR 6000 Mode A/C/S Transponder and DME Ramp Test Set, with US Mains Leads</td>
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<tr>
<td>6000-220</td>
<td>IFR 6000 Mode A/C/S Transponder and DME Ramp Test Set, with European Mains Leads</td>
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<td>6000OPT2</td>
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### 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
- AC24006: Tripod, Dolly, Stand
- AC0824CD: IFR 6000 Maintenance Manual - CD
- AC0825CD: IFR 6000 Operation Manual - CD
- AC0829: 25ft TNC/TNC COAX
- AC0830: 50ft TNC/TNC COAX

### Notes

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