

GE  
Oil & Gas

# ADTS550F

(ADTS552F, ADTS553F, ADTS554F)

## Wireless ADTS500 Series Easy-to-Use Pitot Static Tester



### Features

- ADTS Touch hand terminal with Bluetooth® wireless technology (backup cable supplied)
- Swipe-action, touch screen user interface with colour graphics and menu
- Standard icons and layouts for routine testing
- Multiple languages
- High flow proportional pressure control technology
- Large capacity pressure/vacuum pump
- TERPS high accuracy pressure sensors inside
- Accuracy suitable for RVSM validation
- 15-month accuracy
- 18-month accuracy option
- Engine Pressure Ratio (EPR) option
- Low Airspeed option
- Extended Altitude option (EALT)
- Stores customized aircraft test sequences
- Accessories bag supplied, ADTS Touch carry case option
- Available in a 2 channel, 3 channel or 4 channel configuration
- A 2nd ADTS Touch hand terminal can be used as an indicator
- Retrospectively upgradable (ADTS552F upgradable to a three-channel or a 4-channel and ADTS553F upgradable to a 4-channel)
- GE ADTS global service support

Your touch, our technology



# ADTS Touch

The ADTS Touch is a removable, robust wireless hand terminal that communicates to the test set via secure Bluetooth® wireless technology. This technology and the innovative design of the ADTS Touch remove the need to run cables or hoses into the cockpit.\*\*



A rechargeable battery pack enables up to eight hours of continuous ADTS Touch wireless use. The battery can be charged by the ADTS Touch when connected to the test set, by power cable, or by an optional desk charger.

As an alternative, the ADTS Touch can be used as a conventional wired hand terminal, with or without a battery pack, by attaching a supplied cable, or as a local user interface by docking the hand terminal onto the ADTS550F.

A large, easy-to-read display in pressure or aeronautical units and swipe navigation, with intuitive icons that are logical and easy to remember, allow you to quickly scroll through available tasks. The ability to set "aircraft safety limits," enable "auto leak recovery" and save or recall aircraft test sequences make the ADTS Touch an easy-to-use hand terminal. Its multi-language selection further enhances the ADTS Touch's usability.

For the more demanding wireless application, such as a large aircraft outside of a hanger (nothing for the wireless signal to bounce off), the ADTS Touch-ER offers a solution. The ADTS Touch-ER extends the wireless range, by the use of a fixed external antenna, or by using the supplied window attach antenna.

\*\*Due to individual country radio licence requirements, Bluetooth® wireless technology may not be available in some countries. An up-to-date list of countries that the ADTS Touch with Bluetooth® wireless technology is licenced to be used in is available upon request from GE.ADTS550F Standard Specifications

# ADTS550F

(ADTS552F, ADTS553F, ADTS554F)

The ADTS550F, supplied with an ADTS Touch, is a family of portable, self-contained pitot static testers, with a large pitot static volume capability for use on an extensive range of aircraft. With the option of a two, three or four channel model, the ADTS550 is ideal for most light to wide body passenger and freight aircraft. Because business needs change such as the addition of new aircraft to the fleet, the ADTS550F family can be retrospectively upgraded by GE.

To ensure an accuracy that is suitable for RVSM (Reduced Vertical Separation Minimum) validation, the new ADTS550F incorporates advanced Druck TERPS (trench etched resonant pressure sensor) technology.

To satisfy the demand for a smooth rate of change into a high pitot static volume, the ADTS550F uses Druck proportional control technology coupled with a large pump capacity.



## ADTS550F Standard Specifications

- ADTS550F pitot static tester
- ADTS Touch hand terminal
- AC power lead: 1.8 m (6 ft) length approximately
- ADTS Touch remote connecting cable: 1X 5m (16ft) and 1X 18m (59 ft) length approximately
- ADTS Touch battery pack
- ADTS Touch AC power supply unit
- Pack of Ps and Pt colour labels
- Multi-language installation manual
- Accessories bag
- Operator manual (installed in ADTS Touch)
- Calibration certificate traceable to international standards



## ADTS552F

The ADTS552F, supplied with an ADTS Touch, is a portable, self-contained two-channel pitot static tester. The ADTS552F is designed to be connected to the aircraft Ps and Pt ports via hoses to leak check and accurately control pressures that simulate altitude, airspeed and rate of climb. The ADTS552F can be retrospectively upgraded by GE to an ADTS553F or ADTS554F.



## ADTS553F

The ADTS553F, supplied with an ADTS Touch, is a portable, self-contained three-channel pitot static tester. The ADTS553F has the same two-channel capability as the ADTS552F with the addition of a third pressure controller to connect to an aircraft Ps2 and simulates "angle of attack" (AOA). The ADTS553F can also be used as two-channel pitot static tester by selection in the set up menu on the ADTS Touch. The ADTS553F can be retrospectively upgraded by GE to an ADTS554F.



## ADTS554F

The ADTS554F, supplied with an ADTS Touch, is a multi-purpose 4-channel portable, self-contained pitot static tester.

By selection in the set up menu on the ADTS Touch, the ADTS554F:

- Operates as a two-channel pitot static tester with the same capability as the ADTS552F
- Operates as a three-channel pitot static tester with the same capability as the ADTS553F.
- Operates as 2 independent two-channel pitot static testers for simultaneous testing of 2 pitot static systems.

## ADTS550F and ADTS Touch Specifications

### Scaling Factors

- Altitude: ft, meters
- Airspeed: knots, km/hr, mph
- Rate of Climb: ft/min, m/min, m/s
- Others: mbar, inHg, inH2O, mmHg, kPa, hPa, psi

### Rate Control/Indication

- Roc: Rate of Climb
- Rt Ps: Rate of Static
- Rt Pt: Rate of Pitot
- Rt Qc: Rate of Pt-Ps
- Rt CAS: Rate of calibrated airspeed
- Rt EPR: Rate of engine pressure ratio

### Overpressure

Negligible calibration change with up to 1.25 x full scale (FS) overload applied

### Calibration Stability

ADTS550F: Better than 0.05 mbar (Ps) and 0.05 mbar (Pt) over 15 months

ADTS550F-E3: Better than 0.05 mbar (Ps) and 0.05 mbar (Pt) over 18 months

# ADTS550F and ADTS Touch Specifications (cont.)

Parameter	Operating Range	Resolution	ADTS550F 15 mth Accuracy *	ADTS550F-E3 18 mth Accuracy *
Altitude (EALT Option)	-3,000 to 60,000 ft (-3,000 to 65,000 ft)	1 ft	±3 ft at sea level ±7 ft at 29,000 ft ±12 ft at 41,000 ft	±3 ft at sea level ±7 ft at 29,000 ft +/-12 ft at 41,000 ft
Ps1 & Ps2 Aeronautical	56 to 1,130 mbar abs	0.01 mbar	± 0.10 mbar abs	± 0.10 mbar abs
Ps1 & Ps2 Measurement	35 to 1,400 mbar abs	0.01 mbar	±0.10 mbar abs	±0.10 mbar abs
Standard Airspeed (SCAS)	20 to 650 knots	0.1 kt	±1.2 kt at 20 kts ±0.5 kt at 50 kts	±1.2 kt at 20 kts ±0.5 kt at 50 kts
Standard Airspeed Pt1 & Pt2	56 to 1,997 mbar abs	0.01 mbar	±0.11 mbar abs	±0.11 mbar abs
Low Airspeed Option (ECAS)	20 to 650 knots	0.1 kt	±0.7 kt at 20 kts ** ±0.3 kt at 50 kts	±0.7 kt at 20 kts ** ±0.3 kt at 50 kts
Low Airspeed Option Pt1 & Pt2	56 to 1,997 mbar abs	0.01 mbar	±0.10 mbar abs	±0.10 mbar abs
Pt1 & Pt2 Measurement	35 to 1,997 mbar abs	0.01 mbar	±0.11 mbar abs	±0.11 mbar abs
Rate of Climb	0 to 20,000 ft/min	1 ft/min	±1% Aim	±1% Aim
Mach ***	0 to 2.0	0.001	Better than 0.005	Better than 0.005
Engine Pressure Ratio (EPR)	0.1 to 10	0.001	Better than 0.005	Better than 0.005

\* Accuracy over operating temperature includes: calibration uncertainty, non-linearity, hysteresis, repeatability, measurement stability over calibration period and control stability

\*\* Auto zero must be enable

\*\*\* Depends on altitude at max Qc

## Recalibration

Simple keypad instruction, use of primary standard pressure reference is recommended

## Display

7" WVGA (800X480) TFT, LED backlit display. High contrast ratio, wide view angle, two readings-per-second update

## Power Supplies

Auto-selection between:

110/230 Vac, 50/60 Hz and 115 Vac, 400 Hz

Power – 200 VA (ADTS552F)

Power – 300 VA (ADTS553F/ADTS554F)

## Power Failure Protection

System locks and a manual let-down feature provided

## Self Test

Integral test routines and reporting for both electrical and pneumatic systems

## Temperature Range

- Storage: -20°C to 70°C (-4°F to 158°F)
- Operating: 0°C to 50°C (32°F to 122°F)
- EALT option Operating: 0°C to 40°C (32°F to 104°F)

## Humidity

0 to 95% non-condensing

## Environmental

Vibration, shock/drop and solar radiation to MIL-PRF-28800F Class 2

## Conformity

EMC EN61326, LVD EN61010 (Electrical safety, PED, WEEE, CE marked)

## Physical

- ADTS552F base weight: 22.0 kg (48.5 lb)
- ADTS553F base weight: 23.5 kg (52 lb)
- ADTS554F base weight: 24.5 kg (54 lb)
- Base unit dimensions: H 300mm, D 425mm, W 525mm (H 11.8 in, D 16.7 in, W 20.7 in) (base unit including lid).
- Hand terminal weight: 1.1 Kg (2.4 lb), battery 0.4 Kg (0.9lb)
- Hand terminal dimensions: H 153mm, D 58mm, W 223mm (H 6 in, D 2.3 in, W 8.8 in)

## Pneumatic Connections

AN6 for Ps1 and Ps2

AN4 for Pt1 and Pt2

## Sealing

Weatherproof in operating mode (lid removed). Base unit IP23, ADTS Touch IP65

## Pneumatic Supplies

Integral pressure and vacuum pumps capable of generating:

- 1,829 m/min (6,000 ft/min) into a 6L total volume (Ps 4L + Pt 2L) up to 9,144 m (30,000 ft)
- Water/moisture content vented automatically

# Options and Accessories

## Option - Low Airspeed

To facilitate the testing of aircraft with low airspeed such as helicopters, the ADTS550F low airspeed option offers an improved QC measurement accuracy.

## Option – EPR Test

Engine Pressure Ratio (EPR) test (Pt/Ps for inlet/exhaust)

## Option – ADTS Touch - ER

ADTS Touch-ER with external antenna for greater Bluetooth® range

## Option – EALT

Extended altitude range: -3,000 to 65,000 feet

## Option – ADTS550F - E3

ADTS552/3/4F with 18-month accuracy (includes one UKAS calibration with new instrument)

## Accessories

Part Number	Description
AATOUC-4	ADTS Touch carry case
AA500F-7	Additional ADTS Touch remote connecting cable – 5 m (16 ft) length approximately (can be connected to ADTS Touch connecting cable for 10 m (32 ft) total length)
AA500F-8	Additional ADTS Touch remote connecting cable – 18 m (59 ft) length approximately
AATOUC-5	ADTS Touch battery pack AC desk charger (state mains lead requirement, US, UK or EU)
AATOUC-1	Additional ADTS Touch battery pack
ADTSTOUCH	Additional ADTS Touch hand terminal (state mains lead requirement)
ADTSTOUCH-ER	ADTS Touch with external antenna for greater Bluetooth® range (state mains lead requirement)
AA500F-1	Pressure connector AN3 male
AA500F-2	Pressure connector AN4 male
AA500F-3	Pressure connector AN6 male
AA500F-4	2 X Staubli quickfit female pressure connector kit (2 X G 1/8th plus 1 X red dot Staubli plus 1 X black dot Staubli)
AA500F-5	Pressure connector AN4 to Hansen quickfit male
AA500F-6	Manifold, one way + one way switched
AA500F-9	Pressure connector AN6 to Hansen quickfit male (does not include AN6 connector, part number AA500F-3 is also required)
AA500F-10	Bulkhead service kit for 1 connector
AA500F-17	Black hose (please state length in metres or feet)
AA500F-18	ADTS552F accessories bag
AA500F-19	Red hose (please state length in metres or feet)
AA500F-20	Blue hose (please state length in metres or feet)
AA500F-21	Hose pressure connector AN3 female
AA500F-22	Hose pressure connector AN4 female
AA500F-23	Hose pressure connector AN6 female
AA500F-24	2 X Staubli quickfit male hose pressure connector kit (1 X red dot Staubli plus 1 X black dot Staubli)
AA500F-25	Hose pressure connector AN4 Hansen quickfit female
AA500F-27	Hose pressure connector AN6 Hansen quickfit female
AA500F-41	10m (33 ft) length approximately mains lead - UK plug
AA500F-42	10m (33 ft) length approximately mains lead - Japan plug
AA500F-43	10m (33 ft) length approximately mains lead - Europe plug
AA500F-44	10m (33 ft) length approximately mains lead - USA plug
AA500F-45	10m (33 ft) length approximately mains lead - India plug
AA500F-46	10m (33 ft) length approximately mains lead - China plug
AA500F-47	10m (33 ft) length approximately mains lead - Australia/New Zealand plug
AA500F-48	10m (33 ft) length approximately mains lead - South Africa plug

# Ordering Information

## 1) Select model number

**ADTS552F** 2-channel pitot static tester, CW ADTS Touch

**ADTS553F** 3-channel pitot static tester, CW ADTS Touch

**ADTS554F** 4-channel pitot static tester, CW ADTS Touch

**-E0** 15 Month Accuracy Option  
**-E3** 18 Month Accuracy Option  
**-SCAS** Standard Airspeed Accuracy  
**-ECAS** Low Airspeed Option  
**-SR** ADTS Touch Standard Range Bluetooth®  
**-ER** ADTS Touch Extended Range Bluetooth®

**ADTS552F** - **E0** - **SCAS** - **SR** Typical Model Number

## 2. Options

EPR

Wireless Disabled

EALT

## 3. Mains Lead

Choose one from this list:

MAINS LEAD - UK PLUG

MAINS LEAD - JAPAN PLUG

MAINS LEAD - EU PLUG

MAINS LEAD - USA PLUG

MAINS LEAD - SOUTH AFRICA

MAINS LEAD - INDIA PLUG

MAINS LEAD - CHINA PLUG

MAINS LEAD - AUSTRALIA/NEW ZEALAND PLUG

## 4. Country of Use

Please state country of use for Bluetooth® wireless technology setup.\*\*

\*\* Due to individual country radio licence requirements, Bluetooth® wireless technology may not be available in some countries. An up-to-date list of countries that the ADTS Touch with Bluetooth® wireless technology is licenced to be used in is available upon request from GE.

## 5. Accessories

Please state any accessories required as separate items when placing order.

## Warranty Terms

New product is supplied with an initial warranty of 24 months. For peace of mind, extend coverage on your equipment beyond the initial period up to a total four-year term.

## Supporting Services

Should your equipment need calibration or maintenance, our global repair facilities are happy to serve.



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