

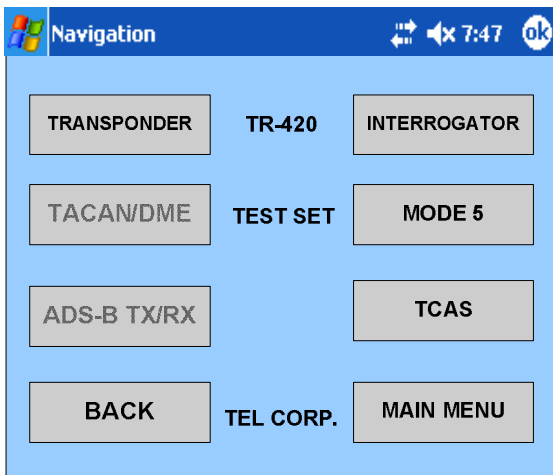
Description

The TR-420 is the next generation in ground support test equipment. Based on current technology and digital architecture, the TR-420 is a leap forward in precision testing for the following systems:

- Transponder Test: Modes 1, 2, 3/A, C, 4, S, EHS (Enhanced Surveillance) and Mode 5.
- Interrogator Test: Modes 1, 2, 3/A, C, 4, S, Mode 5, TCAS and ETCAS.
- Built in GPS provides Accurate Date, TOD and LAT/LONG for positioning.
- Upgradeable and expandable via an Ethernet connection.
- Lithium Ion Battery provides hours of constant operation



The TR-420 large 5.7 in. color LCD screen, surrounding soft-keys and keyboard provides easy and quick access to a multiple of test screens menus and display options. This enables single man operation, instant results via a host of pre-programmed and manually variable parameters to meet the most demanding requirements for testing of airborne avionic and communication equipment in both Air to Air and Direct Connect applications.



The TR-420 thoroughly tests and display accurate and detailed results to comply with new Enhanced and Elementary Surveillance requirements. Upgrade capability to test in both TX and RX for ADS-B broadcasts. Extensive Built-In-Test (BIT) capability monitors condition of HW and SW providing complete confidence in tests results.

Additional features include:

- Wide variety of operator variable parameters present unlimited versatility and capability.
- TACAN
- DME
- Antenna to Antenna and Direct Connect methods.
- Rugged and durable MIL-PRF-28800F, Class 1 package.
- Remote Software/Firmware upgrades.
- MILSPEC Tested and Approved.

Additional Features

The TR-420 is designed in a compact and durable case. Instant One Button GO/NO test can be performed based on stored parameters. The user also has the capability to manually select and vary individualized parameters for each system. All accessories are neatly stored in the Test Set Cover and the battery charger is included.

All test results are stored in the Test Set memory for easy download to a PC for FAA and Eurocontrol reporting. Exceeds the US Military requirements for safety and environmental conditions of MIL-PRF-28800 & MIL-STD-810.

Transponder Test Mode Specification

Test Set Transmitter:

Output Frequency..... 1030MHz / ± 10 kHz
 Output Power..... +10 to -65 dBm / ± 1 dBm (Antenna)
 -25 to -100 / ± 1 dBm (DC)
 1 dB steps
 Modes..... 1, 2, 3A, C, 4 (IFF), S, EHS & M 5

Test Set Receiver:

Measurement Range..... 1086.0 to 1094.0 MHz
 Measurement Accuracy..... ± 200 kHz

Power

Measurement Range..... 47 to 64 dBm
 Measurement Accuracy..... ± 2 dB (DC), ± 1 dB nominal
 ± 3 dB (Antenna)

Sensitivity

Measurement Range..... -45 to -100 dBm (DC)
 -55 to -100 dBm (Ant.) (1'...250')
 Measurement Accuracy..... ± 2 dB (DC), ± 1 dB nominal
 ± 3 dB (Antenna)

Reply Efficiency

Measurement Range... 0 to 100%

Appliqué Compatibility

KIV-6 and KIV-78

Interrogator Test /TCAS Mode Specification

Test Set Transmitter:

Output Frequency..... 1090 MHz / ± 10 kHz
 Output Power..... +10 to -65 dBm / ± 1 dBm (Antenna)
 -25 to -100 / ± 1 dBm (DC)
 1 dB steps
 Modes..... 1, 2, 3A, C, 4 (IFF), S & M 5

Test Set Receiver:

Frequency
 Measurement Range..... 1026.0 to 1034.0 MHz
 Measurement Accuracy..... ± 200 kHz

Power

Measurement Range..... 47 to 64 dBm
 Measurement Accuracy..... ± 2 dB (DC), ± 1 dB nominal
 ± 3 dB (Antenna)

Sensitivity

Measurement Range..... -45 to -100 dBm (DC)
 -55 to -100 dBm (Ant.) (1'...250')
 Measurement Accuracy..... ± 2 dB (DC) ± 1 dB nominal
 ± 3 dB (Antenna)

Appliqué Compatibility

KIV-6 and KIV-78

Physical Characteristics & Accessories

Packaging..... MIL-PRF-28800F, Class 1
 Size..... 14.5 x 9.4 x 6.5 inches
 36.8 x 23.9 x 16.5 cm
 Weight..... 18 lbs. (operating)
 24 lbs (accessories and Lid)
 Operating Temperature... -40° to +55° C
 Battery Type..... Lithium Ion
 Battery Life..... 8 Hours at 20% Duty Cycle
 Battery Charger..... Internal
 Power requirements..... 115-240 VAC, 50 to 400 Hz
 18 to 36 VDC
 Antenna Configuration... Case Mountable
 Tripod Mounted
 Hand-Held
 Color..... Customer Specified

Accessories

- Standard 2-year Warranty
- Operators Manual
- Direct Connect Cable
- Neck Strap
- AC Power Converter
- Omni Antenna
- Antenna Handle
- Calibrated Directional Antenna
- Antenna Extension Cable



Leading the Avionics Test Industry into the 21st Century!

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