



AN/APM-480A

Transponder/ Interrogator/TCAS Test Set Datasheet

Description

Tel-Instrument's AN/APM-480A Test Set provides state of the art technology, unsurpassed reliability, and proven "In the Field" ruggedness. The Test Set software allows the full analysis and testing of the following systems: Transponders (Modes 1, 2, 3A, C, and S), MODE 4 (IFF), Interrogator (Modes 1, 2, 3A, C, 4), and TCAS (Traffic Alert and Collision Avoidance Systems). The easy to use operator interface and displayed results provides the operator with unrivaled Ramp Test capabilities and troubleshooting data. Code of the Day (MODE 4) memory permits full Interrogator and Transponders tests in actual environments ensuring full compliance. The AN/APM-480A has met the rugged military approval process and is available through the Federal Stock System.



Transponder

- Fully Tests MODES 1, 2, 3A, C, 4 (IFF), and MODE S transponders
- Direct Connect or Over the Air measurements permitting unequaled versatility
- "Code of The Day" loaded by KIR and stored in Test Set memory until Zeroized
- Accurate displayed results provide meaningful troubleshooting information
- End of Runway (EOR) test quickly checks Mode 4 operation

Interrogator

- Fully tests 1, 2, 3A, C, and 4 (IFF) Mode's
- KIT Function with "Code of the Day" (must be connected)
- Easy to use menus and setup features
- Direct Connect and Antenna-to-Antenna capabilities
- Manual and Automatic test modes
- Measures the Received Pulses and displays Pulse Width and Separation
- Adjustable Range and preset velocity

TCAS (Traffic Collision Avoidance System)

The ability to test TCAS I, II, and, Traffic Advisory Systems is standard. The AN/APM-480 can simulate both ATCRBS and MODE S intruders utilizing an easy to navigate menu and setup procedures. With preset parameters, the Test Set will automatically acquire and track an inbound and outbound course allowing the operator to observe an intruder on their TCAS display initiating RA (Resolution Advisory), and TA (Traffic Alert) warnings.

The following features are either preprogrammed or adjustable depending on the operators needs:

- Fully Automated built in simulated TCAS Intruder effectively tests TCAS I, TCAS II, and Traffic Alert Systems
- Simulates both ATCRBS and MODE S Intruder types
- Automatic or manual input of Aircraft Under Test altitude
- Antenna-to-Antenna Operation permitting complete system verification tests
- Manually adjustable offset altitude, allowing ascending or descending intercept scenarios
- Simple, On Screen prompts for easy setup
- Start/Stop feature allows flexibility in testing for correct bearing information

Product Specifications

Transponder Specification

Test Set Transmitter:

Output Frequency.....1030MHz / ± 10 kHz
Output Power.....≥ 4 dB
Modes.....1, 2, 3A, C, 4 (IFF), S
Antenna Beam Width.....15°

Test Set Receiver:

Frequency

Measurement Range.....1086.5 to 1093.5 MHz
Measurement Accuracy.....± 200 kHz

Power

Measurement Range.....47 – 64 dBm
Measurement Accuracy.....± 2 dB Direct Connect
± 3 dB Antenna-to-Antenna

Sensitivity

Measurement Range.....-50 to -87 dBm
Measurement Accuracy.....± 2 dB Direct Connect
± 3 dB Antenna-to-Antenna

Reply Efficiency

Measurement Range.....0 to 100%
Measurement Accuracy.....±1%

Interrogator/TCAS Spec

Test Set Transmitter:

Output Frequency.....1090 MHz / ± 10 kHz
Output Power.....≥ 4 dB
Modes.....1, 2, 3A, C, 4 (IFF), S
Antenna Beam Width.....15°

Test Set Receiver:

Frequency

Measurement Range.....1029.7 to 1030.3 MHz
Measurement Accuracy.....± 200 kHz

Power

Measurement Range.....47 – 64 dBm
Measurement Accuracy.....± 2 dB Direct Connect
± 3 dB Antenna-to-Antenna

Sensitivity

Measurement Range.....-50 to -87 dBm
Measurement Accuracy.....± 2 dB Direct Connect
± 3 dB Antenna-to-Antenna

Physical Characteristics

NSN- 6625-01-518-1806

P/N- 90-000-095

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Accessories

Standard

- Standard 2-year Warranty
- Operators Manual
- Neck Strap
- Antenna Handle
- Calibrated Directional Antenna & Extension Cable
- KIR/KIT Cable Assembly
- Direct Connect Cable
- AC and DC Power Cords

Options

- 5 and 10 Year Warranty
- Operational Manual Included

Leading the Avionics Test Industry into the 21st Century!