

# VI

## IFF-45TS

### MK XIIA and TACAN Bench Test Set

A leading edge RF signal generator/receiver designed for engineering manufacturing and return-to-service applications

The IFF-45TS test set provides RF signal generation and parametric measurement of MK XIIA and TACAN equipment. Replies and interrogations can be individually configured to support MK XIIA testing requirements. ADS-B Out testing monitors ADS-B, TIS-B, ADS-R and acquisition squitters. The IFF-45TS emulates either a TACAN ground transponder or a TACAN airborne interrogator, providing six TACAN test modes:

- Ground to Air
- Inverse Air to Air
- Inverse Ground to Air
- Beacon Ground to Air
- Air to Air
- Beacon Air to Air

For a fully configurable automated test solution using the IFF-45TS as the RF source, see the VI



- MK XIIA AIMS certified for Level 1 and Level 2
- Mode 5 testing without actual cryptographic applique and keys using integral mode 5 emulator
- Supports DoD AIMS 04-900A Option A – KIV-78 & QRTK6 NG (with Airbus DS QRTK6 NG adapter) and Option B – KIV-77 & SIT-2010 crypto appliqués (part number 72438 only)
- Dual I/O for diversity testing of transponders or SUM/DIFFERENCE on interrogators
- Separate connections for direct or over-the-air testing
- Software defined radio design allows waveform flexibility and future growth potential
- Dual signal generator design allows coordinated signal production for interference and echo testing
- Remote interfaces consist of RS-232, Ethernet and GPIB
- Graphical User Interface (GUI) allows easy access to test features
- Test ranges of up to 3 km with appropriate antennas

### Applications

- Engineering – Development and qualification testing for MK XIIA, ADS-B Beacon, and TACAN equipment
- Manufacturing – factory calibration and verification testing
- Depot/Service – Level 1 and 2 return-to-service testing
- Support for DO-260B, AIMS 03-1000B, Amendment 1 and DO-181E certification testing
- Over-the-air platform testing of MK XIIA equipment including Mode 5, ADS-B beacons and TACAN interrogators
- Industry-wide use for development and end item testing of transponders and interrogators

## Ordering Information

### Versions and Options

Order Number	Description
72438	IFF-45TS Transponder Modes 1,2,3/A,4 (Internal Crypto),C,S (Mode 5 capable)
72439	IFF-45TS-A Transponder Modes 1,2,3/A,4 (Internal Crypto),C,S
140612	SERD 65A08, Kit, IFF-45TS Test Set
83404	45TSOPT1 IFF Transponder Mode 5 (for use with Order Number 72438 only)
83405	45TSOPT2 Interrogator Modes 1,2,3/A,C,S,4
83406	45TSOPT3 IFF Interrogator Mode 5 (for use with Order Number 72438 only, requires option 2 (83405))
83407	45TSOPT4 DME/TACAN
91684	45TSOPT5 ADS-B Out
140608	45TSOPT10 ADS-B Out Integrity Test App
112120	Kit, ADS-B Out (fielded units), IFF-45TS
112364	Kit, ADS-B Out (fielded units), IFF-45TS-A

### NSN Information

6625-01-617-2567	IFF-45TS w/options 1, 2, 3, 6, 8, 9
6625-01-611-6485	IFF-45TS w/options 2 and 8

### Standard Accessories

92053	PC Windows-based GUI (IFF45TS)
92054	Operation Manual (CD) (IFF45TS)
6138	Getting Started Manual (IFF45TS)
92053	PC Windows-based GUI (IFF45TS-A)
92054	Operation Manual (CD) (IFF45TS-A)
6141	Getting Started Manual (IFF45TS-A)
62302* or 62315**	AC power cord, *110V or **220V
30050	Serial data cable, 9 pin D, 1.5 meters

### Extended Warranty (2 year standard)

84363	36 months with scheduled calibration
84364	60 months with scheduled calibration

### Optional Accessories

88631	45TSOPT6 KIV 77 adapter (Opt B)
89879	45TSOPT8 KIT/KIR-1A/C adapter
86075	45TSOPT9 KIV 78/KIV 6 adapter (Opt A)
63975	Controller w/ touch-screen monitor, w/ Mode 5 GUI
140416	Controller w/ touch-screen monitor, w/ Mode 4 GUI
112349	UC-584 coupler kit, dual antenna
112350	UC-584 coupler kit, single antenna
138553	Kit, Laptop with IFF-45TS Mode 4 GUI
138552	Kit, Laptop with IFF-45TS Mode 5 GUI
138512	Transit Case, IFF-45TS
93023**	IFF-45TS Maintenance Manual
89345**	IFF-45TS-A Maintenance Manual
112684	Antenna

\*\*Includes remote program GUI

### Physical Characteristics

Size: Test Set Only	4"H x 17.75"W x 21"D (10 cm x 45 cm x 53 cm)
Weight	24 lbs. (10 kg)

### Environmental

Operational Temp.	-10° to +55°C (+14° to +131° F)
Storage Temp.	-10° to +55°C (+14° to +131° F)

### Test Set Certifications

UL
CE
DoD AIMS MK XIIA Level 1 and Level 2
For complete certification list see IFF-45TS Specification Sheet