

# Land Mobile Radio Test Systems

**COBHAM**

2015 Brochure

The most important thing we build is trust



# Cobham AvComm Division

Cobham provides technology solutions for AM/FM/SSB, Motorola SmartZone™ and SMARTNET™, P25, P25 Trunking, P25 Phase II TDMA, LSM, DMR/MOTOTRBO™, NXDN™, dPMR™, and TETRA



Today's family of Cobham Radio Test Sets is the result of more than 50 years of experience in providing superior radio test solutions. Through strategic acquisitions, Cobham radio test sets bring a strong history of performance from the icons of radio test including; Aeroflex, Marconi Instruments, IFR Systems and Willtek.

Now, enhanced with research and development into new technologies and new platforms, Cobham delivers the widest range of Radio Test Sets for today's digital Land Mobile Radio communication systems. These proven systems have achieved worldwide acceptance, making Cobham the undisputed leader in Land Mobile Radio test technology.

Cobham radio test sets are used everywhere from R&D labs, production test and field service. Extremely durable, of the highest quality and easy to use, Cobham radio test sets are used worldwide for public safety applications, including mission critical police and emergency communication systems. From direct power measurement of 150 W transmitters to testing receiver digital BER sensitivity, Cobham radio test sets are in demand because of their unique ability to deliver high accuracy and ease of use.

Every Cobham radio test set is reliable, has an excellent price/performance ratio and represents an outstanding test value. Cobham understands that today's digital communications markets move quickly. You can count on Cobham's expertise to rapidly respond to not only changes in the market, but also to your specific requirements.



## 3920B

### The Most Complete, Most Accurate and Most Flexible PMR Test Platform

The 3920B is the latest in advanced analog and digital radio communications test. The undisputed leader for P25, TETRA, MOTOTRBO, DMR, NXDN, dPMR and ARIB T98 test applications, the 3920B is a highly accurate platform onto which software updates expand the measurement and signaling capabilities for communications systems that utilize advanced digital modulation and protocols.

Leading the way into the future, the 3920B now supports P25 Phase II TDMA.

Designed to improve your technical efficiency, the Cobham 3920B supports an internal programming environment, known as Auto-Test II, that allows automatic test and alignment options to be installed. Auto-Test II options are radio family specific. While controlling the radio, the 3920B provides complete test and alignment of either portables or mobiles in minutes! Operator errors caused by, for example, accidental selection of incorrect filters, are removed since the manufacturer specific test settings for each radio are preset in the 3920B.

Current Auto-Test II options available are:

- Motorola ASTRO®, ASTRO 25 and APX™ Series radios
- Motorola MTP-850 TETRA radios
- MOTOTRBO radios
- MOTOTRBO 2 DMR radios
- Harris P7300/XG-75/5500 Series radios
- Harris DMR Series radios
- ICOM P25 Series radios
- ICOM NXDN Series radios
- EF Johnson ES Series radios
- EF Johnson Viking Series radios
- BK DPHX5102X Series radios
- TIA/EIA-603 FM land mobile radio test software
- Technisonic Type 1 and Type 2 radios
- Kenwood P25 TK-5X10G Series radios
- Kenwood 5x20 Series radios
- Kenwood NXDN Series radios
- Relm KNG Series radios
- Hytera DMR Series radios
- Relm KNG-S Series radios
- TAIT 9100 Series radios

As future mobile radio technologies change and market needs expand, the 3920B is your one test platform that will stand the test of time.

Type: AM/FM/SSB/Digital

Input Power: 125 W max

Frequency Range: 2 MHz to 2.7 GHz

Systems Supported: FM, AM, P25, P25 Phase II TDMA, HPD, DMR, dPMR, NXDN, SmartZone and SMARTNET, TETRA, LSM



# Analog/Digital PMR and Cellular



## 3550R

### Portable, Rugged Radio Test System with Color Touch-screen Display

The Cobham 3550R is the industry's first 1 GHz hand-held, rugged radio test system with a large color display and touch-screen operation. At 8.3 lbs. and packaged in a magnesium alloy case, the Cobham 3550R is the industry's toughest and most portable radio test set. Combining many features of a benchtop radio test set with the added capabilities of VSWR and Distance to Fault analysis, the 3550R is perfect for testing radio transceivers, whether on the bench or in remote locations.

Designed to meet the needs of avionics and land mobile radio tests, the 3550R provides fast, reliable measurements of the radio's transmitter and receiver parameters. New to the operation of the 3550R is the capability to test the latest narrowband radio systems including P25, DMR and NXDN.

The 3550R is perfect for testing radio transceivers, whether on a bench, installed in a vehicle or in some remote location. It also has the power to test the cables and antennas, making it the only hand-held radio test set that can test all the components of an installed radio system.



## 8800S

### Bench-Level Features with the Portability and Ruggedness of a Field-Level Test Set

The Cobham 8800S is designed for maximum test efficiency. With the industry's largest color touch-screen display, its unique "fast-stack" user interface, user-defined presets, custom frequency lists, and its ability to handle up to 125 W of direct power, test professionals can set up analog and digital meters and test functions.

Complete with AM, FM, P25, P25 Phase II, DMR, dPMR, NXDN, and ARIB T98 test functionalities, the 8800S is fully equipped for testing mission critical radios. With advanced tools, such as an accurate 6% typical power meter, DMM, modulation accuracy plots, TDMA burst profile masks, digital voice quality verification, and Automated Test and Alignment capability; the 8800S will ensure your radios operate at **maximum performance**.

Weighing 7.7 kg (17 lbs), rated at 30 G shock, featuring a 2.5+ hour internal battery, an optional built-in 500 W (4% accuracy) "In-Line" power meter, and tracking generator for fast VSWR/Return Loss/Duplexer tuning measurements; the 8800S is also an all-inclusive instrument for complete field tests.

Type: AM/FM/Digital

Input Power: 20 W or up to 150 W with external attenuator

Frequency Range: 2 MHz to 1 GHz

Systems Supported: FM, AM, P25, DMR, NXDN, dPMR, ARIB-T98

Type: AM/FM/Digital

Input Power: 125 W  
500 W with In-Line Power Meter

Frequency Range: 2 MHz to 1 GHz

Systems Supported: FM, AM, P25, P25 Phase II, DMR, NXDN, dPMR, ARIB-T98



## 8150

### TETRA AirAnalyzer

Two powerful and highly sensitive measurement receivers form the heart of the 8150 TETRA AirAnalyzer. These receivers pick up the bidirectional communication between TETRA mobile stations and a base station. All time slots in the downlink and uplink of a selectable channel are analyzed simultaneously. The TETRA AirAnalyzer decodes the data received on the radio channel in real time and forwards them to a PC for further processing. Various PC applications can analyze the data under different aspects. The analysis can be performed either online or offline, using the data received and stored at a later date.

#### TETRA Analysis Tests

- Interoperability testing between mobiles and base stations
- Quality of Service testing, such as MCCH load analysis and call statistics
- Identify system issues caused during installation or system expansion
- Locate and identify interference issues
- Analyzer voice quality
- Verify system security features such as authentication and air interface encryption
- Create TETRA system coverage maps

Type: TETRA

Input Power: 30 dBm

Frequency Range: 100 MHz to 1000 MHz

Systems Supported: TETRA



## STI Field Test 7

### Geographic Signal Coverage

STI Field Test 7 is automated signal measurement and analysis software that can be interfaced with most Cobham Radio Test Sets, particularly the 3920 Series, the 3550 Series, as well as the 8800 Series. STI Field Test 7 consists of a GPS receiver, measurement and analysis software, and drivers for the Cobham Radio Test Sets, allowing you to utilize your laptop PC to integrate Field Test System that meets your drive test requirements. The types of signal measurements taken are limited only by the capabilities of the RF measurement instrument used. This unique feature ensures a long and useful life for your STI system. From digital P25 or TETRA BER to analog SINAD and signal strength. STI Field Test 7 is the automated field measurement and analysis kit for your compatible test set.





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