WASP ACQUISITION SYSTEM

Maximum bandwidth: 15MHz
Frequency resolution: 12 kHz
Dynamic range: 60dB
Minimum signal duration for detection: Typically <50ms (depending upon selected configuration)
Display modes: Instantaneous, peak detect, peak hold
Screen update rate: 500ms

DF ANTENNAS

Frequency range: MA1316-2 to 250MHz,
MA1310-200 to 1200MHz,
MA1310G-1.2 to 1.9GHz
Principle of operation: Active 4 element Adcock
Typical Accuracy: 5 degree GD, 0-1000MHz
Polarisation: Vertical

DF SYSTEM

Frequency range: 2.0 to 20000MHz (depending upon antenna)
Principle of operation: Single channel non-commutated Watson Watt
Bearing resolution: 1 degree
Receiver sensitivity: Typically 0.25uV for 10dB signal to noise + noise within SSB bandwidth.
Receiver dynamic range: 80dB
Minimum DF signal duration: 200ms

DF4400S

Weight: <15kg, dependent upon options
Power consumption: Full system-35w, reduced system-20w
Input voltage: 11-32v, ac operation with appropriate adaptors
Size: W-3050mm, H-600mm, D-3200mm
External interfaces: 3 x RS232, 1 x USB, dual battery input

ENVIRONMENTAL

Temperature range: Operation: -20 to + 55 degrees C
Storage: -40 to +65 degrees C
Shock/vibration: MILSTD-810D, DEFSTAN 00-34
Protection: Major system components to IP65

LEARAS

LIGHTWEIGHT Emitter Acquisition
Recording & Analysis System
KNOW WHEN OTHERS ARE MAKING WAVES

LEARAS provides a Communications Intelligence gathering system, combining the functionality and flexibility of software based equipment to solve the technical needs of the professional community. This allows the rapidly changing solutions - available commercially Off-The-Shelf - to be provided within a customized system, ensuring that the supplied solution is technically advanced.

Supplied as a ruggedized package, optimized for man portable and transportable movement, the equipment is appropriate for operation in harsh environments. System weight is kept to a minimum, using innovative housings and packaging.

The LEARAS system allows surveillance and direction finding over the frequency range of 2-2000MHz, utilizing three separate antennas. These matched components are included to provide a high accuracy line-of-sight bearing against most communications systems. Any one antenna may be connected individually, allowing very flexible operation.

Lightweight antenna mast structures are available (Rotamast), allowing elevation of each antenna, significantly increasing the operational range or line-of-sight of the system. The antennas are also designed for temporary mounting on a vehicle, for tracking or search and rescue missions.

The main LEARAS unit is the DF4400S, DF operator and control unit, featuring an embedded CPU. This allows the system to be fully operated via any industry standard laptop computer. The associated hardware interface allows RS232 connections to a variety of external devices, such as NMEA compatible GPS, serial communications devices, additional monitoring receivers, and any USB compatible device.

In the monitor mode, the DF4400S has a continuous frequency range of 0.1-2035MHz. Depending upon antenna selection, the DF system will operate over the range 0.5-1900MHz. Reception modes include narrow FM, wide FM, AM, USB, LSB, and CW. Tuning resolution is available down to 10Hz, and allows listen through - providing simultaneous DF and monitor record of the intercepted signals.

Included with the DF4400S is a fully controllable audio matrix, to each of the two headset outputs. The matrix allows for simultaneous twin split receiver working, or monitoring of PC sound output.

Essential with any signal acquisition system is an effective panoramic display, allowing a visual indication of RF activity. The DF4400S provides an optional FFT generated DSP display, allowing 15MHz of RF bandwidth to be continuously observed. This system, known as WASP (Wideband Acquisition Signal Processor) allows short duration signals, such as frequency agile emitters, to be reliably identified.

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