

# DF4400 Receiver/Processor

## VENDOR DESCRIPTION

Date Revised: 25 NOV 03

The 4400 is a compact, portable direction finding receiver/processor that also functions as a general purpose monitor and surveillance receiver. A backlit LCD display is used for good visibility in all lighting conditions.

The 4400 DF Receiver/Processor features an embedded CPU. This allows the system to be menu driven, have multiple RS-232 interfaces, and include a Bitmapped-graphics display. The multiple RS-232 interfaces provide for remote control of the system, auxiliary and remote displays, and fluxgate compass. The 4400 also features standard PC parallel printer port, PC AT compatible keyboard interface, and PC compatible VGA monitor port (for external display). Extensive remote control and monitoring functions are provided allowing complete unattended remote operation of the 4400 DF system. A 10.7MHz IF output is available to drive a spectral display unit.



**Product Manager Robotic & Unmanned Sensors**  
 Telephone: (732) 427-5827 / DSN 987  
 Fax: (732) 427-5072 / DSN 987  
 e-mail: SFAE-IEWS-NV-RUS@iew.s.monmouth.army.mil



Business Category: Large Business

CDR

Hardware		
<b>Frequency Range:</b> Monitor: 0.1 MHz-2036 MHz, no gaps DF (total): 0.5 MHz-2036 MHz	<b>IF Output:</b> 10.7 MHz with maximum $\pm 5$ MHz bandwidth (Output active only in WBFM Mode)	<b>Power:</b> Operating Voltage: DC +11 to +32 VDC; AC Adapter 115/230 VAC $\pm 10\%$ , 47 to 63 Hz Power Consumption: 20 watts
<b>Reception Modes:</b> NBFM, WBFM, AM, USB, LSB, CW	<b>Memory Channels:</b> 1000 operator programmable	<b>Dimensions:</b> 5.25"H x 10.25"W x 11.00"D <b>Weight:</b> 13 lbs
<b>Track and Hold:</b> When enabled, retains most recent bearing indication. Hold times are operator selectable from 10 seconds, 30 seconds until next signal	<b>Interfaces:</b> RS-232C, parallel printer, keyboard, VGA, compass, GPS, IF output	<b>Operating Temp.:</b> -0°C to 45°C <b>Storage Temp.:</b> -20°C to 60°C
<b>Search/Scan Modes:</b> Variable hold, 1-19 seconds	<b>Audio Output:</b> 1.2/0.7 watts at 4/8 ohm load, 10% distortion	<b>Circuitry:</b> Triple (USB/LSB/CW/AM/FM) Quintuple (WFM) conversion superhetrodyne

Performance	
<b>Receiver Sensitivity:</b> 0.1 MHz-2.5 MHz: 1 $\mu$ V SSB/CW, 3.2 $\mu$ V AM 2.5 MHz-1.8 GHz: 0.25 $\mu$ V SSB/CW, 1 $\mu$ V AM 0.35 $\mu$ V NFBM, 1 $\mu$ V WBFM 1.8 GHz-2.0 GHz: 0.75 $\mu$ V SSB/CW, 3 $\mu$ V AM 1.25 $\mu$ V NFBM, 3 $\mu$ V WBFM	<b>Receiver Selectivity (IF):</b> SSB and CW: 2.4 kHz @ -6 dB, 4.5 kHz @ -60 db AM and NBFM: 12 kHz @ -6 dB, 25 kHz @ -70 dB WBFM: 180 kHz @ -6 dB, 800 kHz @ -50 dB
<b>Bearing Resolution:</b> 1°	<b>Azimuth Coverage:</b> 360°
<b>Bearing Integration:</b> 200 msec to 9 seconds, operator selectable	<b>Offset:</b> 0° to 359° (1° increments)
<b>Calibration:</b> Automatic system calibration to LCD display indication, stored through power-down. Receiver delay calibration permanently stored in non-volatile memory.	