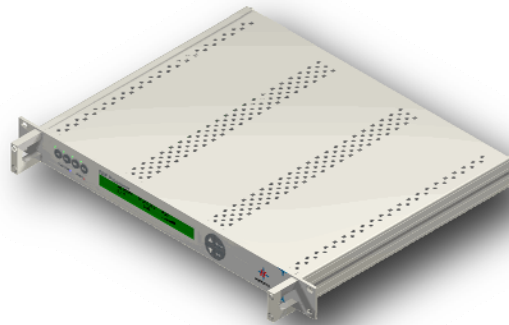


# ENHANCED DIRECTION FINDER HDF-0010



- Radio Direction Finding using Doppler shift.
- Provides a directional bearing in degrees from a received audio signal.
- Used in HAYSYS DF systems to aid spatial awareness and for navigational aids.
- Intuitive Front Panel menu system including four favourite keys.
- Display communications using TCP/IP (Ethernet).
- Continuous monitoring and alarm functions.

The EDF Processor incorporates a high degree of functionality that has been designed and integrated into relatively simple system architecture. The equipment uses standard interfaces to communicate with each other and provide ease of integration with other systems.

The EDF processor is a 1U high standard 19" sub-rack unit with all connections being made at the rear panel. The EDF Processor is normally installed at the Antenna site of a DF installation with connectivity to the display units being via Ethernet connectivity.

The EDF processor uses Digital Signal Processing (DSP) algorithms in an embedded processor. These algorithms provide superior signal detection and bearing angle measurement. The signal detection capabilities of the processor even provide the EDF with the ability to accurately resolve bearings from receivers independent of their squelch control settings.

The DF antenna system is a fixed site medium aperture eight-element antenna array with each dipole element switched in turn by the EDF Processor to produce the Doppler shift used to resolve the bearing.

Dipole Elements are located at the end of eight arms rigidly connected to the centre hub. Each dipole is manufactured from stainless steel, with all materials and finishes being corrosion resistant.

## EDF DISPLAY TERMINALS

Up to 12 DF display units can be networked to a single EDF Processor. This allows for flexible installation and distributed monitoring terminals.

## MULTI-CHANNEL

Monitor and Control multiple units via the DF Display Terminal Software.

## REMOTE MONITORING

Distance between the Display Terminals and the EDF Processor equipment can be suitably arranged to accommodate most installation infrastructures. Communication can be either Copper 2/4 wire or Fibre Cable. Other communication methods are available dependant on the installation.

# Specifications

Antenna Commutation Frequency	Selectable - 307 to 2458 Hz
RF Operating Frequency	88 MHz to 1000 MHz
Bearing Accuracy	$\pm 2^\circ$ (CAP 670 Class A) (Site Dependant)
Bearing Resolution	1 <sup>o</sup>
DF Sensitivity	-126 dBm
DF Response time	<150ms
Sampling Rate	Bearing resolved twice per second
Audio input	0.01 to 0.6 VRMS
Display	40 x 2 Character LCD
Display Indicators	Channel Name, Bearing, RSS, Alarm, Menu
Indicators	Alarm and Test Oscillator
Operating Temperature Range	-20°C to +55°C
Size	Standard 1U 19" Rack
Weight	4Kgs
Interfaces	1x Ethernet Interface 1x Audio input 1x Antenna Drive
Power Supply	240V A.C.
Power Requirements	25 Watts

# Other Information

The EDF Processor is designed to operate as part of the larger DF system. The required equipments of the DF system include:

- DF Antenna
- Communication Receiver (HDF-0032)
- Test Oscillator (HDF-0024)
- Display Position (HDF-0034)
- Display Software (HDF-0015)

All of the above items are available from HAYSYS Limited.

## NETWORK CONNECTION

All equipment located in the Antenna site building is connected via standard network switch.

## TEST OSCILLATOR

Control over the HDF-0024 Test Oscillator via the network connection.

Please contact Haysys for more information

## Contact Details:

7 Deryn Court,  
Pentwyn Business Centre,  
Wharfedale Road,  
Pentwyn,  
Cardiff  
CF23 7HA.

Tel: +44 (0)29 20 736276  
Fax: +44 (0)29 20 735949  
Email: [info@haysys.co.uk](mailto:info@haysys.co.uk)

