

- *Portable*
- *45-MHz bandwidth*
- *Flexible*
- *Modular*
- *Remote Operation*



Features

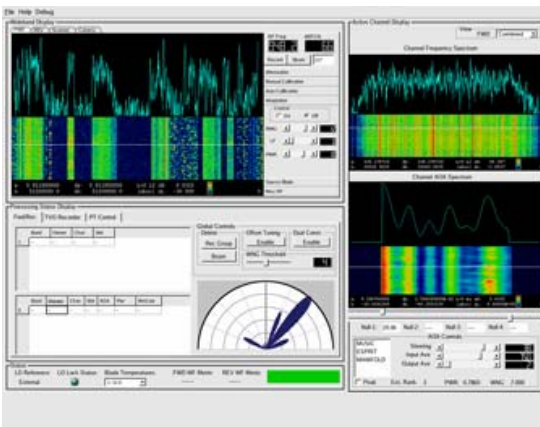
- Eight-element adaptive array with dual channel receiver design
- Instantaneous 45-MHz bandwidth per receiver
- Generates 254 simultaneous beams with fully-independent adaptive beam processing
- 200-kHz channel spacing
- Modular processing system
- Portable design
- Remote operation capability

Description

This ABFS-09-8-01 adaptive array is a multiple-element adaptive beam-forming system that is designed to operate in the 900-MHz frequency band. It is intended to be used as a smart antenna to extract and clean up signals in congested signal environments. The design is flexible, modular, and can be customized to meet user requirements.

The system employs dual-band receivers to allow operation on two selected 45-MHz subbands. These subbands are internally digitized and processed by advanced FPGA-based processing technology to isolate and enhance up to 254 signals of interest.

The system is software controlled and is operated through a flexible graphical interface. Optionally, a socket-based interface is available for remote operation and control.



Adaptive Beam-Forming System

ABFS-09-8-01

Specifications

Includes

Eight element adaptive array head
 Pan and tilt unit for head positioning
 Tripod
 Adaptive beam-forming electronics
 Rack mount server
 GPS Unit
 Transit Case

Additional Options

Four Terabyte TVO recorder (11 hour recorder)
 Rack mount keyboard and monitor
 Additional server to run X-Midas applications
 Electronic compass and camera

Engineering

Interferer handling capacity	7
Gain (dBi)	9
Close Angle Suppression	1.5°
Suppression (dB)	>30

Receiver

Band A (MHz)	864–964 MHz
Band B (MHz)	819–914 MHz
Instantaneous bandwidth	45 MHz
Tuner step size	50 KHz

Beam forming

Channels processed	254 (127 per band)
Channel size	200 KHz
Independent Adaptive processing	

Array Head Physical Properties

Blades	8
Length	64.85inches
Depth	23 inches
Height	8.85 inches
Weight	50 pounds