

RADIO DIRECTION FINDING

COMPACT DF HEAD SYSTEMS

FOR VHF, UHF & SHF DISTRIBUTED OPERATIONS



www.crfs.com

 **CRFS**

**EXTRAORDINARY
RF TECHNOLOGY**

HEAD SYSTEMS OVERVIEW

CRFS' compact Direction Finding (DF) Heads are a sub-system for Communications Intelligence (COMINT) and Electronic Warfare (EW) applications. They can be seamlessly integrated with dismounted solutions, and support signal search, capture, localization, DF and geolocation intelligence.

Swappable DF Heads scan, detect, DF and record DF results in tasked frequency channels tuneable across 30 MHz to 40 GHz* frequency ranges.

Integrated hardware (RFeye Node 40-8, 100-8, 100-18, 100-40 and RFeye Node Plus 100-18), software and APIs provide accurate DF performance in complex signal environments. Multiple heads can be networked together for geolocation, tactical (dismounted) manned and unmanned solutions and distributed 2D TDoA, 3D TDoA and AoA deployments.

** Requires appropriate frequency Node*

AT A GLANCE

- Supports ISR, locating and DF of radio signals, interference sources and radio monitoring
- Tactical DF antenna solutions for frequency ranges from 30 MHz to 40 GHz
- Modular systems with CRFS direction finding sensitivity and accuracy
- TDoA, 3D TDoA, AoA
- Small form factor COTS technology
- Easily integrated with a RFeye Node
- Rapid deployment & highly configurable
- Designed for distributed operations
- Integrated with tactical and dismounted solutions

DFH300 system
with new Rapid
Deployment
Kit options



NOW AVAILABLE

RFEYE DFH300 UP TO 300 MHz

Compact Low Band Direction Finding (DF) head system covering a frequency range of 30 MHz to 300 MHz. The controller is incorporated in the Head measuring just 60 x 60 (cm) and weighing less than 5 kg. This swappable DF Head can be attached to different Nodes.



RFEYE DFH300 BUNDLE LIST

DF HEAD:

- DF Head, integrated controller and 8 x antennas
- Carbon fibre extender
- RF and power cables

RAPID DEPLOYMENT KIT:

- Lightweight roll-up tubular 2m tripod
- Integrated guy ropes and tensioners
- Metal central post with 3-way bracket
- 1 x RFeye Node (Green / Sand / White) choose between 8, 18 or 40 GHz
- 1 x RFeye Site (software) bundle
- 2 x monitoring antennas
- 1 x Power Distribution Box
- 1 x CRPA Anti-jam GNSS antenna
- Quick release cable ties
- Battery
- Solar charger for battery
- Ruggedized protective transport case

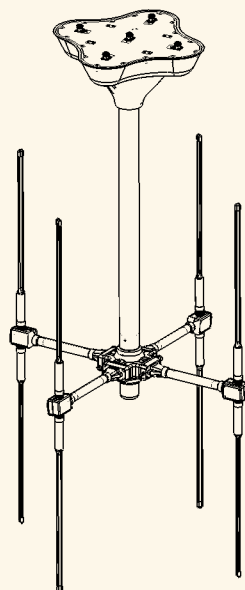
OPTIONAL ACCESSORIES:

- Backhaul (options include Silvus MANET radio, Starlink)
- Ruggedized laptop

COMING 2025

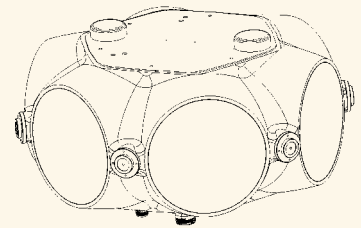
UP TO 500 MHz

Compact Low Band Direction Finding (DF) head system covering a frequency range of 30 MHz to 500 MHz. The top Head incorporates the controller. The bottom ring provides a frequency extension down to 30 MHz. Two rings are optimized for excellent DF performance across a wider frequency range.



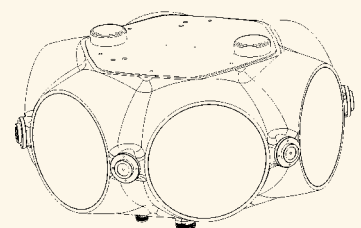
UP TO 18 GHz

Ultra compact, lightweight, modular DF Head (up to 18 GHz). Spiral directional antennas reject interference and multipath, support high-speed commutation and ensure you see all linear polarizations. Planned weight <20 kg.



UP TO 40 GHz

Ultra compact, lightweight, modular DF Head (up to 40 GHz). Requires RFeye Node 100-40.



RAPIDLY DEPLOYED MAST SYSTEMS

	LIGHTWEIGHT ROLL-UP TUBULAR SYSTEM	INTERMEDIATE BLUESKY SYSTEM	HEAVYWEIGHT BLUESKY SYSTEM
Tripod height	2m	3m – 6m	6m – 10m
Construction material	Aluminium, ABS, rollable composite, UV resistant nylon fabric	Aluminium	Aluminium
Maximum height (inc DFH extender)	3m	7m	11m
Tripod load capacity	40 kg (88 lbs)	27 kg (59 lbs)	2 kg (48 lbs)
Wind rating	100km/h (62 MPH)	100km/h (62 MPH)	100km/h (62 MPH)
Deployment time	< 10 mins	< 10 mins	< 20 mins
Number of people to deploy	1-2	1-2	2
Testing to	MIL-STD810H	MIL-STD810G	MIL-STD810G
Fast elevator system	Yes	Yes	Yes
Colours	Black or Multicam	Black	Black
Compass and bubble system	–	Yes	Yes
Environmental	Water & dust proof	Water & dust proof	Water & dust proof



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CRFS creates deployable technology to detect, identify and geolocate signals in complex RF environments. With a leading position in the US, Europe and a global reach, our systems are used worldwide by regulatory, military, system integrators, government security agencies and corporates. They require actionable spectrum intelligence across the widest possible frequency range, in both congested and contested environments. They rely on our highly sensitive RF sensors, accurate transmitter geolocation, signal captures, classification and real-time RF intelligence to fulfil EMSO and electronic warfare support missions.