Advanced DF-ing, Tracking and Location Solutions for

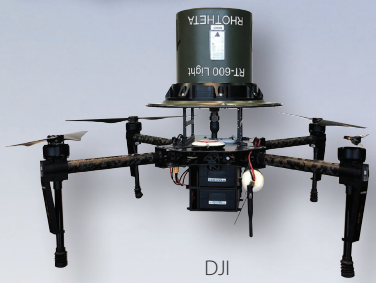
Public Safety - Search & Rescue Drones

Think of a Drone as a DF antenna tower:
↑ Drone Height = ↑ Radio Horizon = ↑ DF Range


ELBIT SYSTEMS


SKY ROVER


CURSIR



DJI

RADIO LINK
DATA & AUDIO

118 – 470 MHz
AM - FM – PM

REMOTE CONTROL STATION


GCS

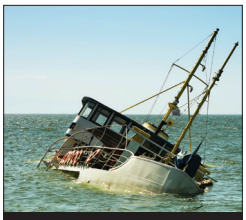

DF SCOUT™


DF COMMANDER™

PUBLIC SAFETY – SAR TRANSMITTERS


PLB


ELT


EPIRB


LOJACK™

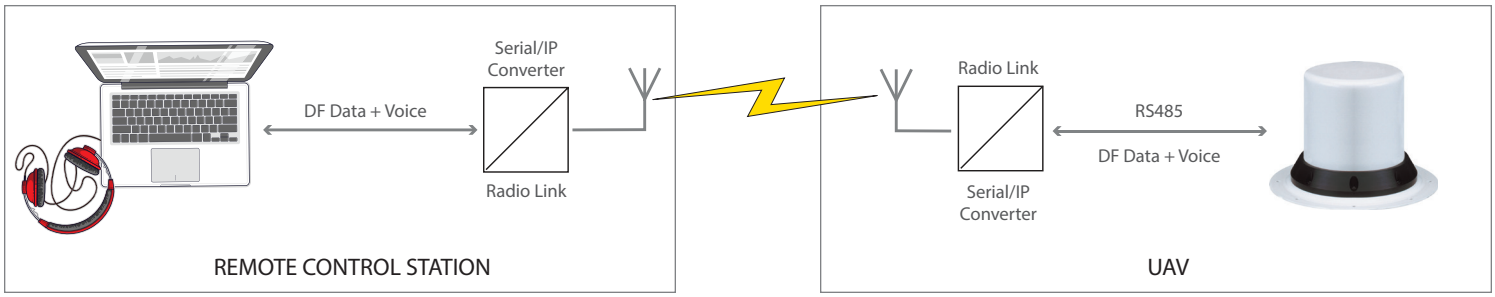

ETS™


MEDICAL

RT-600 MAIN FEATURES

- DF sensor designed for search-and-rescue and public safety
- Version "A" for SAR | Version "L" for SAR + Law Enforcement
- Tracking of ELT, PLB, EPIRB, LoJack™, ETS™, COSPAS-SARSAT™, medical, and V/UHF AM/FM transmitters
- Decoding of COSPAS-SARSAT™ and LoJack™ messages
- DF-only drone endurance from 15 to 60+ min depending on UAV
- 600+ RT-600 systems flying in North America alone
- Wide frequency range from 118 to 470 MHz
- Automatic 360° Doppler DF with ±5° rms bearing accuracy
- Easy Integration: RS-485, no RF cables, WiFi and TCP/IP adapters

RHOTHETA INTERNATIONAL INC. • (954) 495-8700 • info@rhothetaint.com • rhothetaint.com

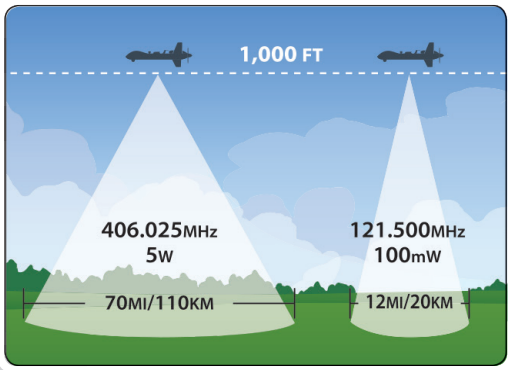


TECHNICAL DATA

Method of bearing:	Doppler principle (3 kHz rotational frequency, right / left rotation)		
Bearing accuracy:	±5° RMS [1]		
Internal resolution:	1°		
Bearing Sensitivity:	VHF Air/Emergency:	≤ 2.5 µV/m	(typical)
	VHF Marine:	≤ 2.5 µV/m	(typical)
	UHF Emergency and ETS:	≤ 4 µV/m	(typical)
	COSPAS-SARSAT LoJack Decoding (50 % Message Error Rate) and bearing:	5 µV/m	(typical)
Frequency stability:	±2.0 ppm (b,.f/f = ±2 X 10-6)		
Reception frequencies, SAR version (standard):	VHF Emergency Band:	118.000 to 124.000 MHz (8.33 kHz steps, AM)	
	VHF Marine Band:	154.000 to 163.000 MHz (5.00 kHz steps, FM)	
	UHF Emergency Band:	240.000 to 246.000 MHz (25.00 kHz steps, AM)	
	UHF FM-Band:	406.100 to 410.000 MHz (5.00 kHz steps, FM)	
	COSPAS-SARSAT:	400.000 to 406.092 MHz Incl. 406.022 to 406.076 MHz (Channel A…S)	
	Additional Frequency Options:		
	F1 VHF Air Band:	118.000 to 136.992 MHz (8.33 kHz steps, AM)	
	F2 extended VHF Marine Band:	137.000 to 224.995 MHz (5.00 kHz steps, FM)	
	F3 extended UHF Air Band:	225.000 to 399.975 MHz (25.00 kHz steps, AM)	
	F4 additional UHF FM Band:	406.100 to 470.000 MHz (5.00 kHz steps, FM)	
Reception frequencies, Law Enforcement version:	VHF Emergency Band:	118.000 to 124.000 MHz (8.33 kHz steps, AM)	
	VHF Marine Band:	154.000 to 163.000 MHz (5.00 kHz steps, FM)	
	LoJack:	164.000 to 174.000 MHz (12.5 kHz steps)	
	ETS:	216.000 to 220.000 MHz (10/12.5 kHz steps, FM)	
	COSPAS-SARSAT:	400.000 to 406.092 MHz Incl. 406.022 to 406.076 MHz (Channel A…S)	
	Additional Frequency Options:		
	FI VHF Air Band:	118.000 to 136.992 MHz (8.33 kHz steps, AM)	
	F2 extended VHF Marine Band:	137.000 to 163.000 MHz (5.00 kHz steps, FM)	
COSPAS-SARSAT freq.:	Channels A to S (406.022 to 406.076 MHz)		
COSPAS-SARSAT Fast scan mode:	Full automatic detection of any active COSPAS-SARSAT channel A to S within 400 ms		
COSPAS-SARSAT decoding:	Reception and decoding of COSPAS-SARSAT data signal (112 or 144 bit, 400 baud, biphase L encoded, phase modulation, with Bose-Chaudhuri-Hocquenghem error - correcting code, specified according to COSPAS-SARSAT C/S T.001 October 1999)		
LoJack decoding:	Selectable LoJack ID display and selective active filtering		
Special scanning modes:	Complete maritime ship band scanning within 3 s		
Bearable modulation:	A3E, F3E, A3X (ELT modulation), FI D, G2D, COSPAS-SARSAT Bearing largely independent of modulation		
Polarization:	Vertical		
Polarization error:	≤ 5° at 60° field vector rotation		
Garbling cone:	Approx. 30° to the vertical		
Response time [2]:	≤ 50 ms (with sufficient reception field strength)		

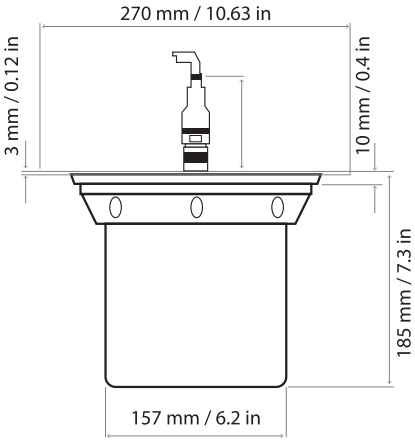
[1] With undisturbed wave field and sufficient field strength. Measured by changing the angle of incidence with the antenna rotating on a revolving table in order to eliminate environmental influences on the results. No modulation.

[2] Very weak signals can increase response time considerably!



RT-600.AU-A
RT-600.AU-L
DO160 • 4.4-Lbs

RT-600.AU-A Light
RT-600.AU-L Light
2.85-Lbs



RHO International Inc THETA The Leader in DF