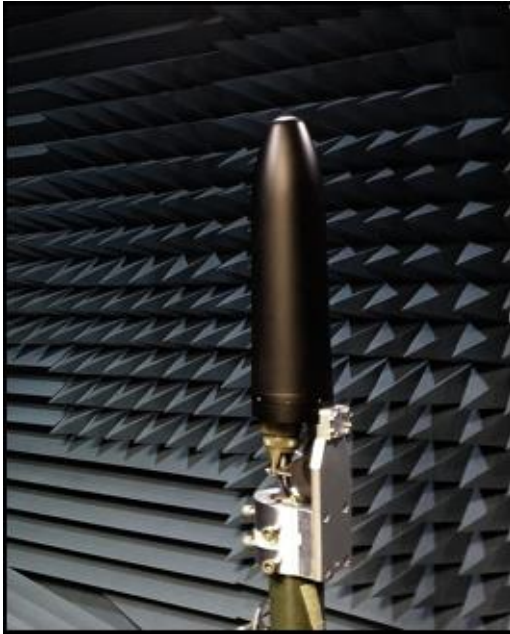


Compact Adcock DF Antenna

20 – 6000 MHz

Product Code: DF-A0257



PRODUCT DESCRIPTION:

The DF-A0257 is a tri band, compact Adcock DF antenna intended for direction-finding from 20 MHz to 6000 MHz.

The antenna presents patterns suitable for the Watson-Watt estimation method, as well as 3-channel correlative DF (CDF). The antenna offers an omni-channel output that can also be used for monitoring.

The DF-A0257 has a low noise amplifier on each channel with passive bypass capability, an integrated noise source or optional external signal can be used for downstream RF chain calibration and also includes a navigation and GPS.

- *CA Application 2,853,219;
- *EP Patent 2771943;
- *U.S. Patent No. 14/353,382;
- *ZA Patent No. 2014/02806

SPECIFICATIONS:

Product Code:			
DF-A0257		RS485 communication interface	
DF-A0257-02		USB V2.0 communication interface, 64 MB onboard memory	
DF-A0257-05		USB V2.0 communication interface, integrated inertial navigation system and 64 MB onboard memory	
Electrical: DF			
Frequency range	20 – 6000 MHz		
	Band B: 20 - 500 MHz		
Frequency bands	Band C: 400 - 2000 MHz		
	Band D: 2000 - 6000 MHz		
Number of channels	3		
DF method	Watson-Watt or 3-channel CDF		
RMS accuracy	See graph below		
Polarisation	Vertical		
Omni-output	Yes		
Nominal input impedance	50 Ω		
Electrical:		DF-A0257	DF-A0257-02 / -05
Frequency range	20 – 6000 MHz		
RF Amplification Gain	12 ± 2 dB		
Control	RS 485 serial at 115 kbaud	USB V2.0	
Switching time	< 100 µs using serial commands	< 25 µs	
	< 5 µs when using dedicated lines		
Integrated features:		DF-A0257 / -02	DF-A0257-05
Navigation	Integrated compass Heading accuracy 2° RMS	Integrated GPS/INS ¹ unit. Heading accuracy 0.3° RMS	
GPS Antenna	Active (L1)		
Onboard Storage	Model no., serial no., user data fields	DF-A0257-02 / -05 64MB flash in addition to Model no., serial no., user data fields	
Programming interface	None	to integrated micro controller	
RF calibration	RF chain calibration using Integrated noise source or external applied signal		
Power supply	6 - 18 V DC		
Power consumption	< 3W		
Interfaces:			
Connector	MIL-DTL-38999 multi-pin connector		
Antenna outputs	3 x co-axial		
Integrated GPS	1 x co-axial		
Ext cal input	1 x co-axial		
Control and power	4 x digital		
Programming	4 x digital (DF-A0257-02 / -05 only)		
Mechanical	Removable flange for vehicle or mast-mounting Various sockets for tripod / gooseneck (1/4-20 UNC, 3/8-16 UNC, M10-6H, 3x M5-6H)		

Notes:

¹ VN-200 GPS/INS

Mechanical:

Dimensions (ø x h)	See outline below
Total mass	< 1.5 kg incl bracket
Environmental: designed to meet the following specifications	
Wind survival	160 km/h (without ice)
Temperature (operation)	-30 °C to +70 °C
Vibration and shock	Designed to MIL-STD-810F for ground vehicles
IP Rating	IP66



AUTHORIZED USA DISTRIBUTION BY:

Cyntony Corporation
195 Follen Road
Lexington, Massachusetts
sales@cyntony.com
781-430-0675



GAIN THE ADVANTAGE

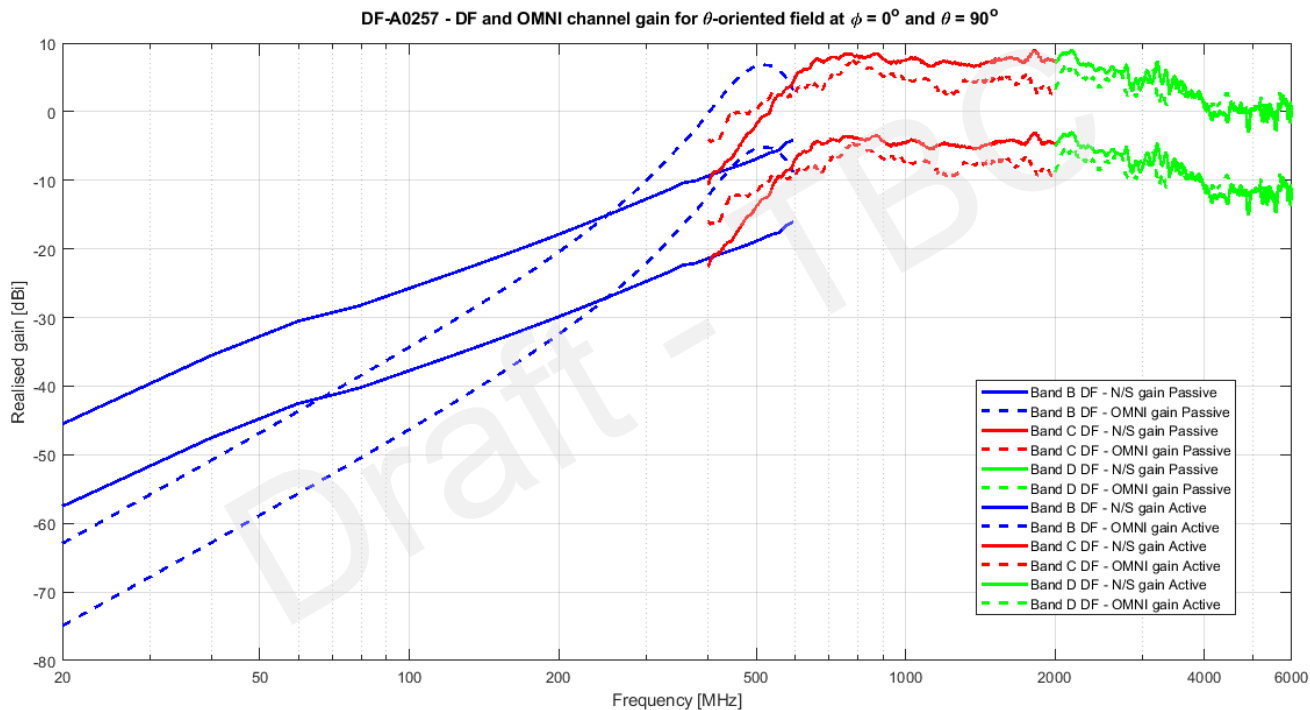
Compact Adcock DF Antenna

20 – 6000 MHz

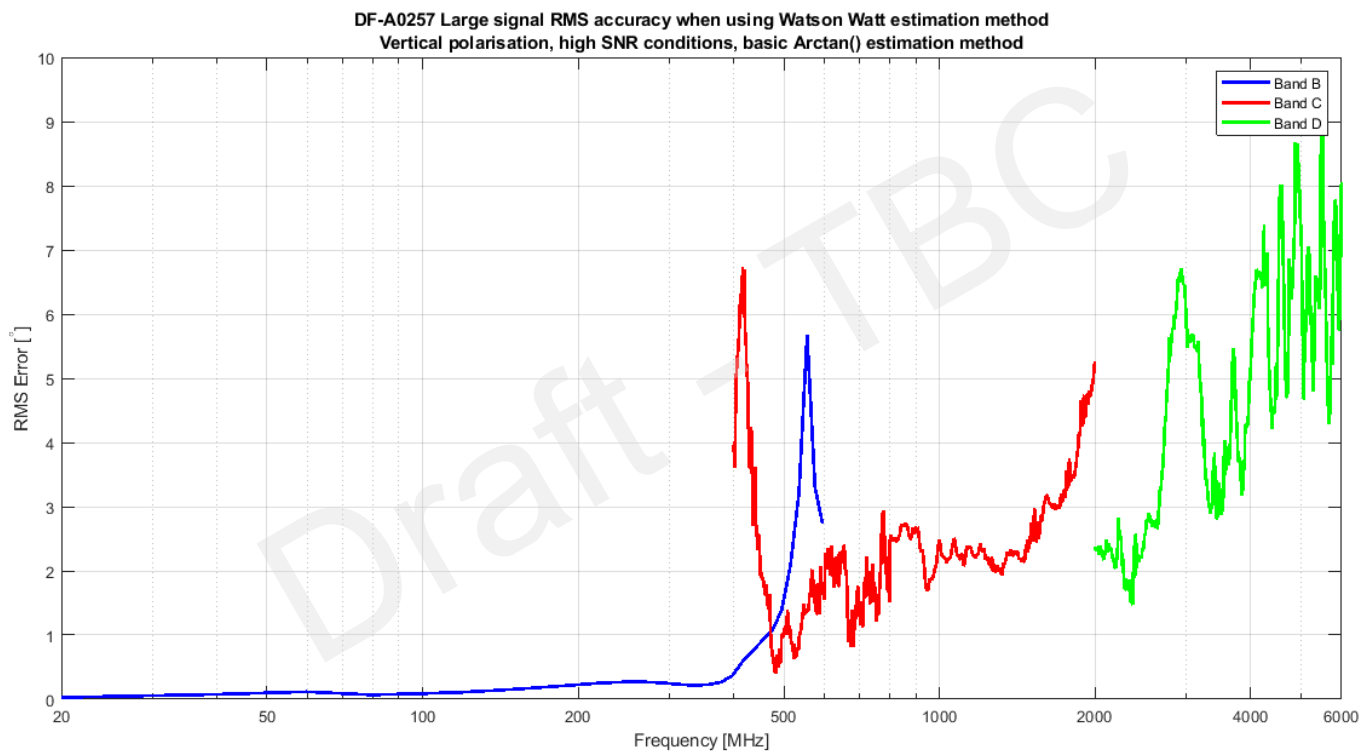
Product Code: DF-A0257

VERSION: 1.1

Antenna Channel Gain (TBC*):



DF Accuracy (TBC*):



AUTHORIZED USA
DISTRIBUTION BY:

Cyntony Corporation
195 Follen Road
Lexington, Massachusetts
sales@cyntony.com
781-430-0675



GAIN THE
ADVANTAGE

Compact Adcock DF Antenna

20 – 6000 MHz

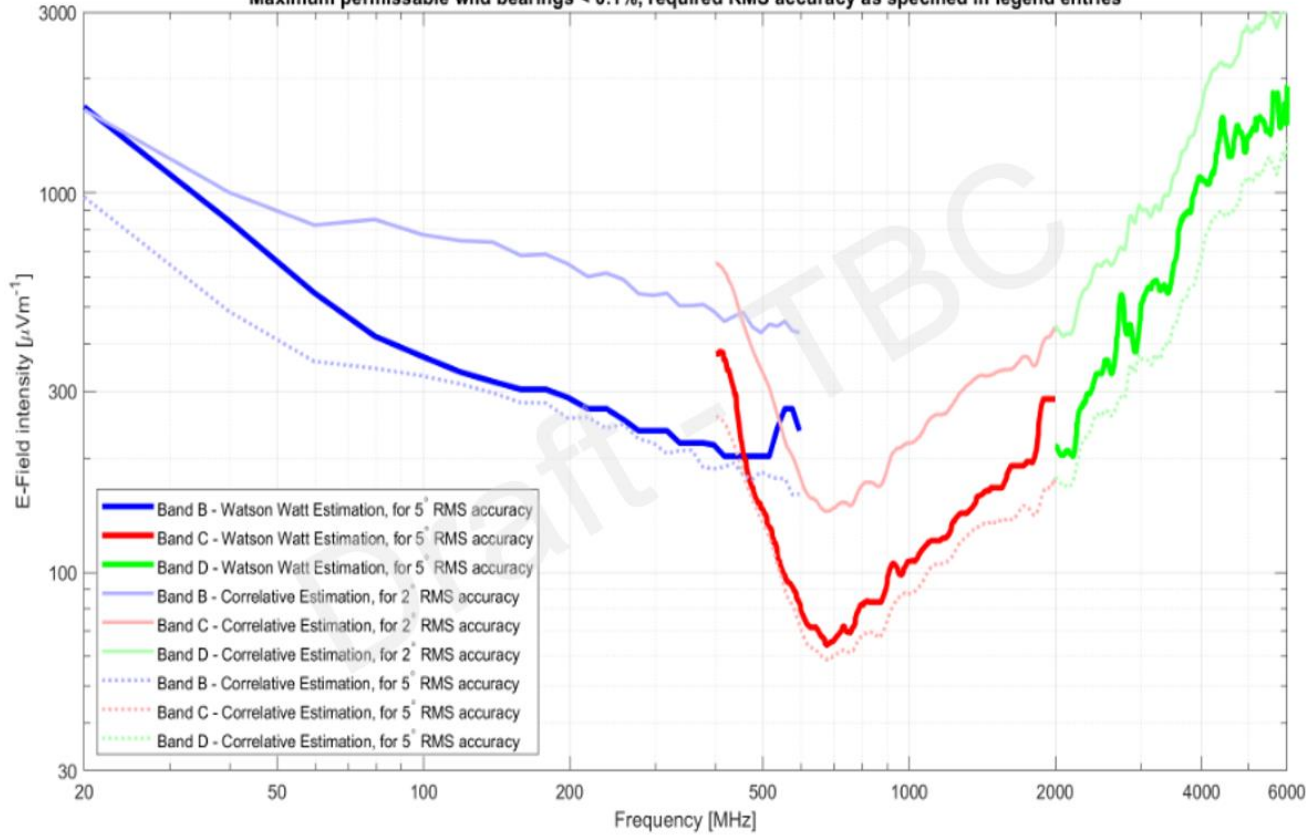
Product Code: DF-A0257

VERSION: 1.1

DF Sensitivity (TBC*):

DF-A0257 DF Sensitivity with Watson Watt and Correlative Methods
Vertical polarisation, System NF=10dB, BW=25kHz

Maximum permissible wild bearings < 0.1%, required RMS accuracy as specified in legend entries



AUTHORIZED USA
DISTRIBUTION BY:

Cyntony Corporation
195 Follen Road
Lexington, Massachusetts
sales@cyntony.com
781-430-0675



GAIN THE
ADVANTAGE

Compact Adcock DF Antenna

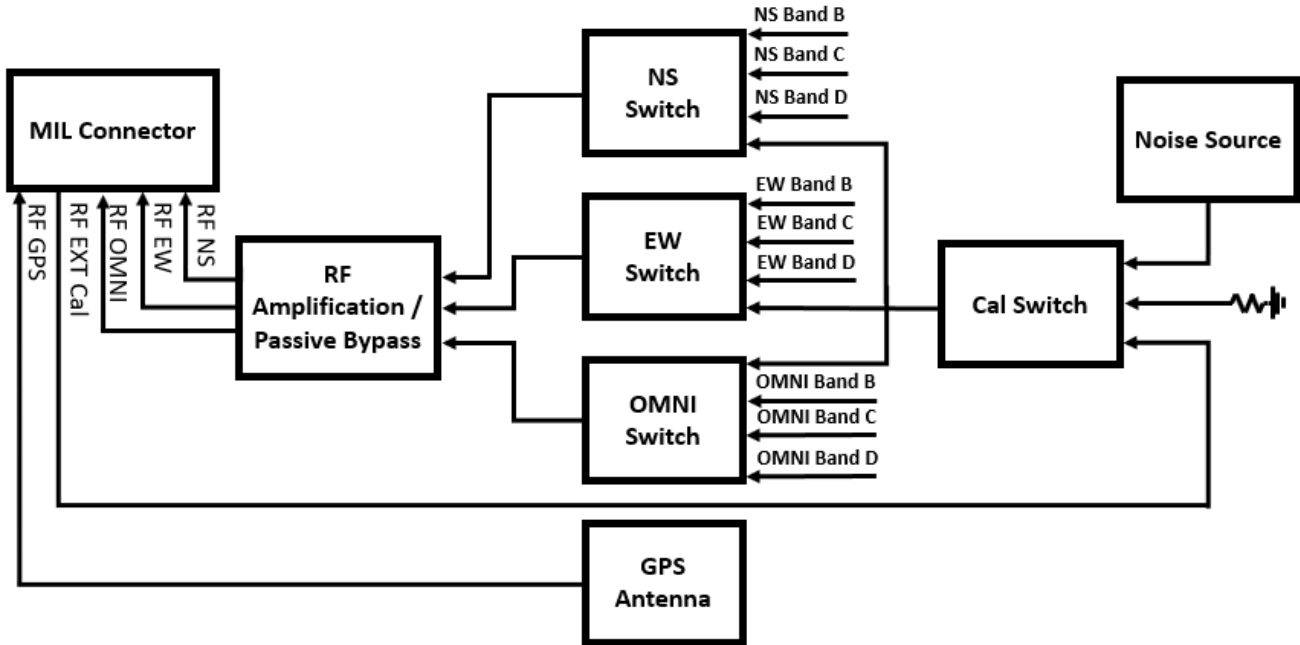
20 – 6000 MHz

Product Code: DF-A0257

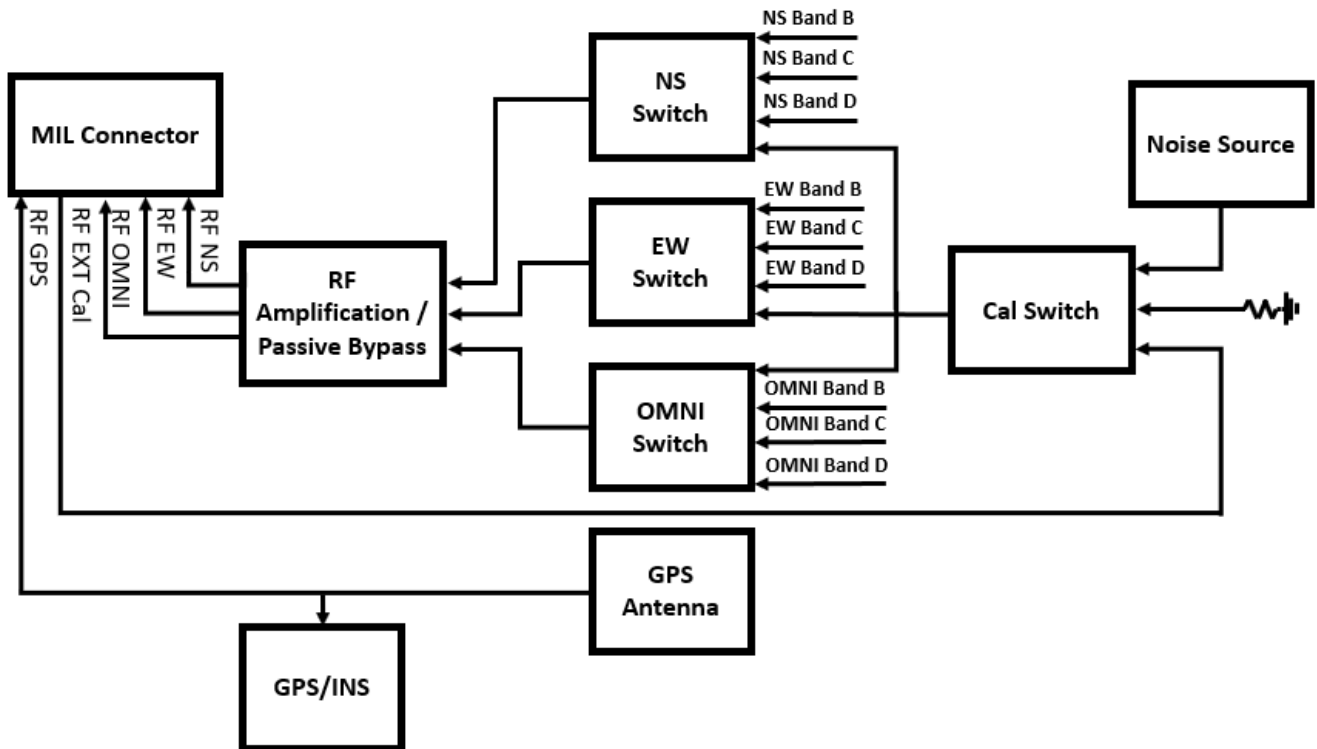
VERSION: 1.1

RF Block Diagram:

DF-A0257 / -02:



DF-A0257-05:



AUTHORIZED USA DISTRIBUTION BY:

Cyntony Corporation
195 Follen Road
Lexington, Massachusetts
sales@cyntony.com
781-430-0675



GAIN THE ADVANTAGE

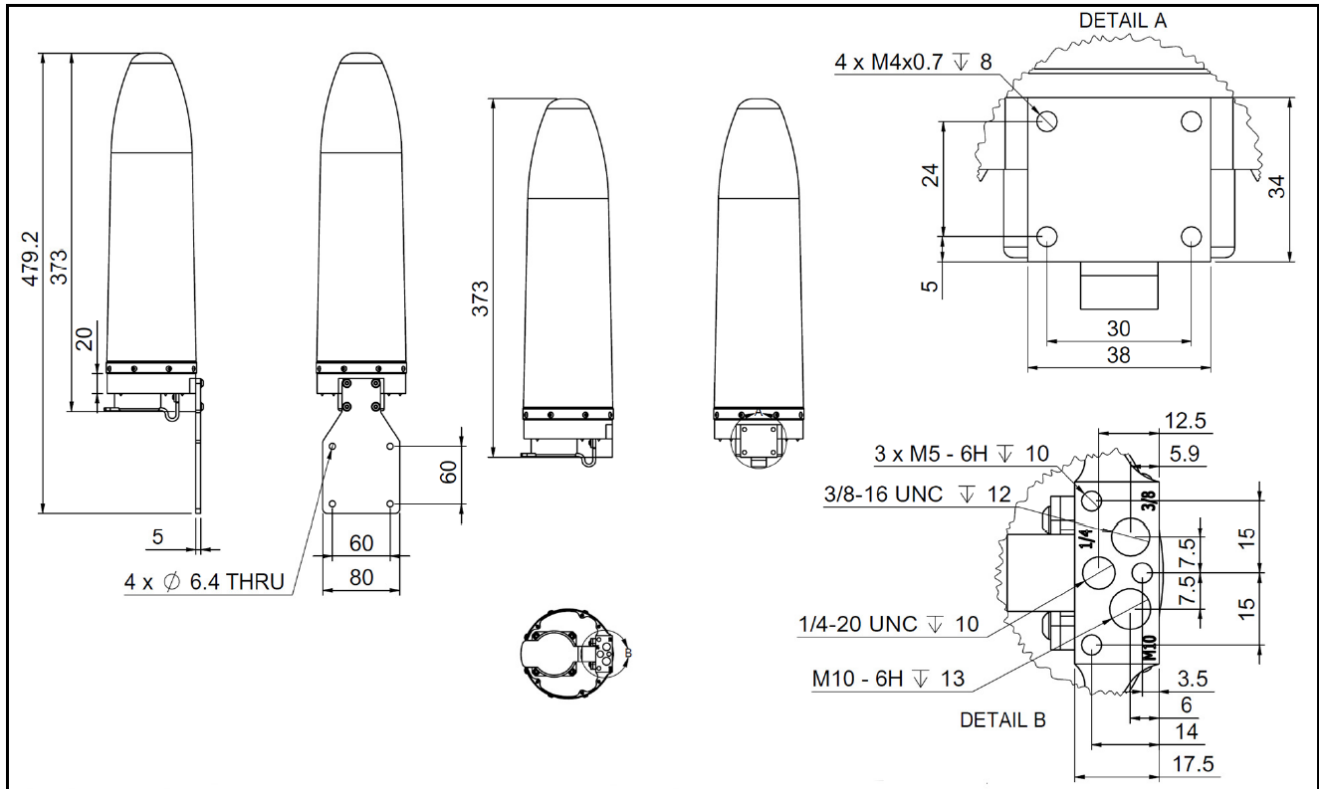
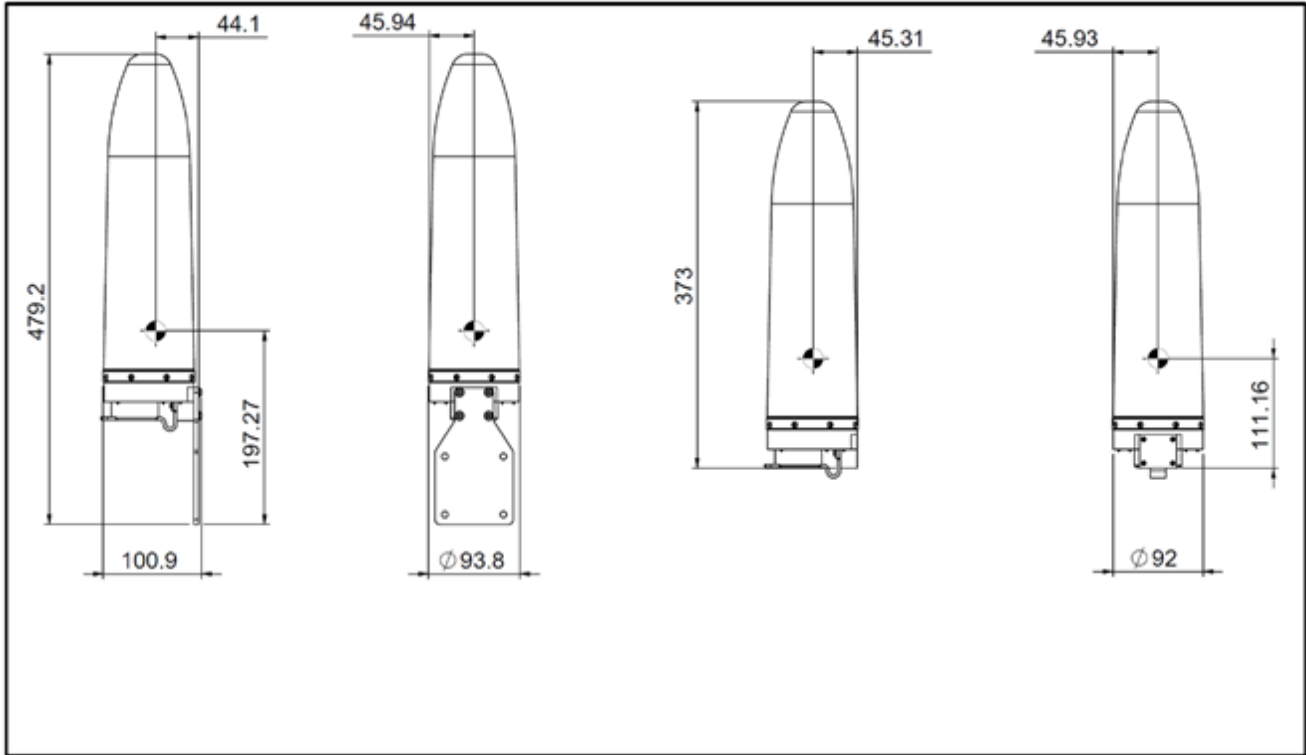
Compact Adcock DF Antenna

20 – 6000 MHz

Product Code: DF-A0257

VERSION: 1.1

Mechanical Outline:



**AUTHORIZED USA
DISTRIBUTION BY:**

Cyntony Corporation
195 Follen Road
Lexington, Massachusetts
sales@cyntony.com
781-430-0675

cyntony
customer affuned

**GAIN THE
ADVANTAGE**