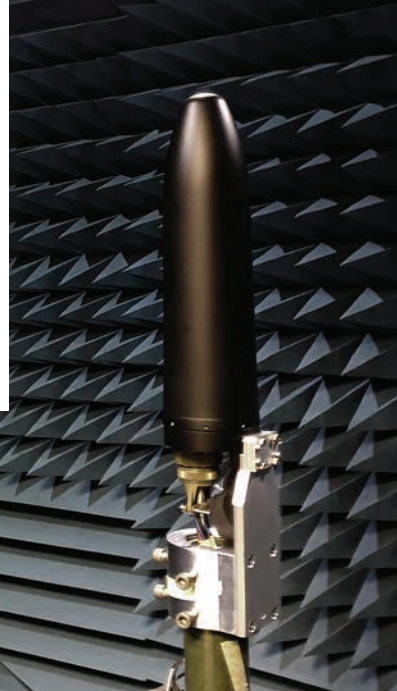


Tactical DF Antennas for Urban Warfare

Showcasing Compact Adcock DF Antenna DF-A0257



Recent armed conflicts have highlighted the prevalence of urban warfare and the pivotal role that it will continue to play in future conflicts.

Urban combat has seen a rapid shift in focus within the 21st century, with sparse distribution of assets becoming a primary challenge for militaries worldwide because of ill-defined battle lines and asymmetrical engagements.

Densely populated areas, with complex infrastructure, provide new challenges to conventional warfare and create a heavy reliance on war fighters. War fighters are required to make rapid decisions under uncertainty with devolved command and control. During such scenarios, communication and coordination become essential in the movement of assets.

As assets navigate through the urban territory, they can easily become separated and isolated in areas. Secure communication is paramount to ensure the successful synchronization and coordination of assets on both sides.

Effective detection of cooperative and uncooperative assets is important and can be accomplished with the adoption of tactical low SWaP COMINT EW equipment.

Low SWaP COMINT EW equipment intercepts and interprets the surrounding electromagnetic spectrum to perform these tasks and while COMINT EW systems are used throughout the theatre, their importance is amplified within the urban environment.

Such tactical low SWaP equipment offers clear benefits when real-time gathering of information is required for targeting or avoiding uncooperative assets and the location of cooperative assets.



DF-A0245 is a HF quad pod that can be added to the above antennas to extend frequency down.



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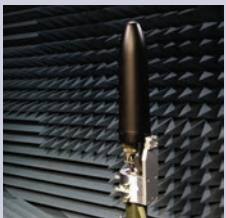
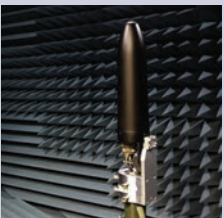
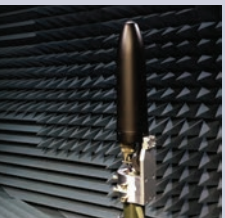
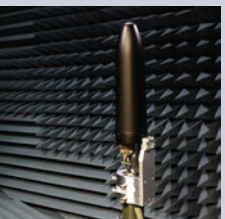


As one of the world's leading suppliers of EW antenna systems, Alaris Antennas have developed a range of highly effective, wide-band, tactical, COMINT DF antenna systems for military and security forces to identify and locate their adversaries' positions as well as their own assets.

These antennas cover frequency ranges from 1 to 6000 MHz and employ correlative DF methods for improved accuracy. Systems based on these antennas demonstrate great sensitivity for their size and offer scalable functionality which can be dynamically controlled by the user based on the prevailing operational environment. Standard units provide on-the-march capability between 20 to 6000MHz.

System performance can be augmented to include HF when at the halt by deploying a single tactical quad-pod which is designed to be used with a variety of our low SWaP COMINT DF antenna systems, sharing a common form factor for easy packing and storage.

Our solutions are designed and manufactured for optimal performance.

Their basic parameters are shown in the table below:

Product Code	DF-A0245	DF-A0254	DF-A0257*	DF-A0269	DF-A0303*
Installation	On-the-halt	Low Swap Manpack	Low Swap Manpack	Low Swap Manpack	Low Swap Manpack
Frequency	1 - 250MHz	400 - 6000MHz	20 - 6000MHz	400 - 8000MHz	20 - 6000MHz
DF Accuracy (typical)	< 5 °	< 5 °	< 5 °	< 3 °	< 3 °
Size (height x diam. & mass)	< 700mm x 2000mm incl. quadpod < 6.5kg	< 373mm x 101mm incl. < 1.1kg incl. bracket	< 373mm x 101mm incl. < 1.2kg incl. bracket	< 373mm x 101mm incl. < 1.1kg incl. bracket	< 373mm x 101mm incl. < 1.2kg incl. bracket
Form Factor					
Use Case					
DF Method	Watson - Watt (WW) or 3-channel correlative DF (CDF)**			4-channel correlative DF (CDF)**	

*Products can be used on their own or in combination with DF - A0245. ** within a high field environment

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