

ACTIVE TUNED & CONFORMAL Antennas



EXPERIENCE EXCELLENCE IN MILITARY COMMUNICATIONS

We recognise that the urgency of the battlefield demands swift and effective solutions. This commitment has propelled us to secure numerous defence contracts globally. As an independent company, with over 50 years worth of R&D investment and experience, our brand is synonymous with high quality, reliability, and ongoing product support. These principles enable us to embrace future technologies while pushing the boundaries of today's communication and navigation standards.

Our innovation into military technology has resulted in a range of airborne antennas tailored for the harshest environments. We understand the prevalence of hostile terrains and the life-saving importance of communication and navigation, be it covert or overt. This understanding has led us to invest significantly in a comprehensive range of Military antennas, capable of enduring the most taxing and extreme conditions.

Our expertise extends to a broad spectrum of antennas, covering HF to SATCOM, tailored for military aircraft applications, including helicopters and fast jets. We are also renowned as the leading manufacturer of pin diode-tuned active V/UHF antennas, specifically designed for seamless integration with the latest frequency-hopping radios from leading manufacturers. What sets our antennas apart are their unique features, engineered to provide you with simplified integration and in-life supportability, a distinction seldom found in comparable products.



10-150 SERIES

ACTIVE TUNED ANTENNAS

The 10-150 series of PIN diode tuned antennas are specifically designed for high-performance military aircraft or situations where antenna siting is challenging. The 10-150 series of PIN diode tuned antennas offer fast and secure frequency hopping across multiple frequency bands.

These antennas provide fast and secure frequency hopping across multiple frequency bands. The blade antennas in this series are truly versatile, offering a wide range of combinations from VHF to L band, making them truly multiband.

All tuning is fast, radio silent, and compatible with all the leading frequency hopping secure speech radio. This together with better siting selectivity to improve collocation siting of antennas, makes the 10-150 series most suitable for current ECCM communications.

- Multi band operation
- Unique flash memory
- Compatible with Frequency Hopping Secure Speech Systems
- Fast radio silent tuning
- Proven service reliability
- Low weight

Colour Codes

- 1 MATT BLACK
- 2 GLOSS WHITE
- 3 NATO GREEN MATT
- 4 GLOSS GREY

Radio Interface

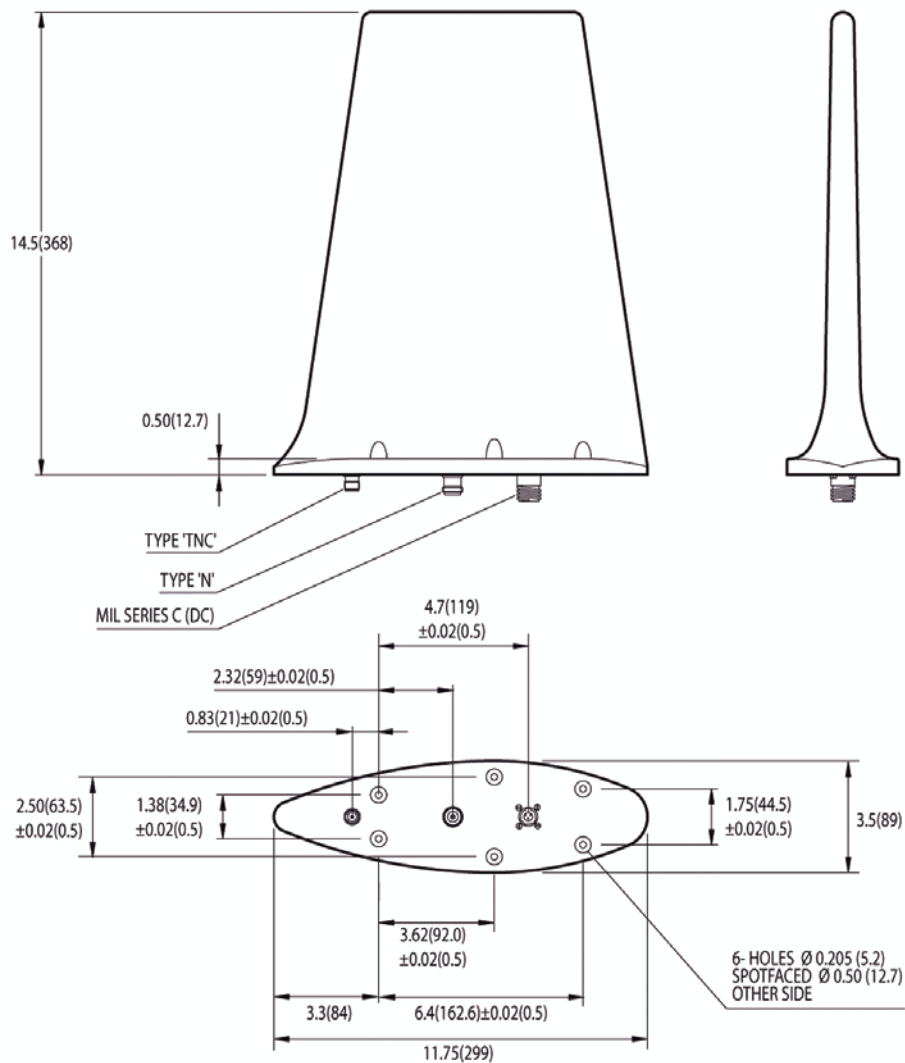
The system is compatible but not limited to the following radios:

Cobham	RT-5000
Collins Aerospace	ARC-210
	ARC-210 Gen 5
	ARC-210 Gen 6
Leonardo	SRT-600
	SRT-651
	SRT800
	SRT-651N
L3Harris	RF300M-DL
	RF-7850A-MR
Raytheon	ARC-232
	ARC-231
Rohde & Schwarz	M3AR
	MR6000R
	RS6000
Thales	TRA 5400N
	TRA 6034
	TRA 6036



10-150-15

Pin Diode Tuned VHF/UHF Comms Antenna + IFF

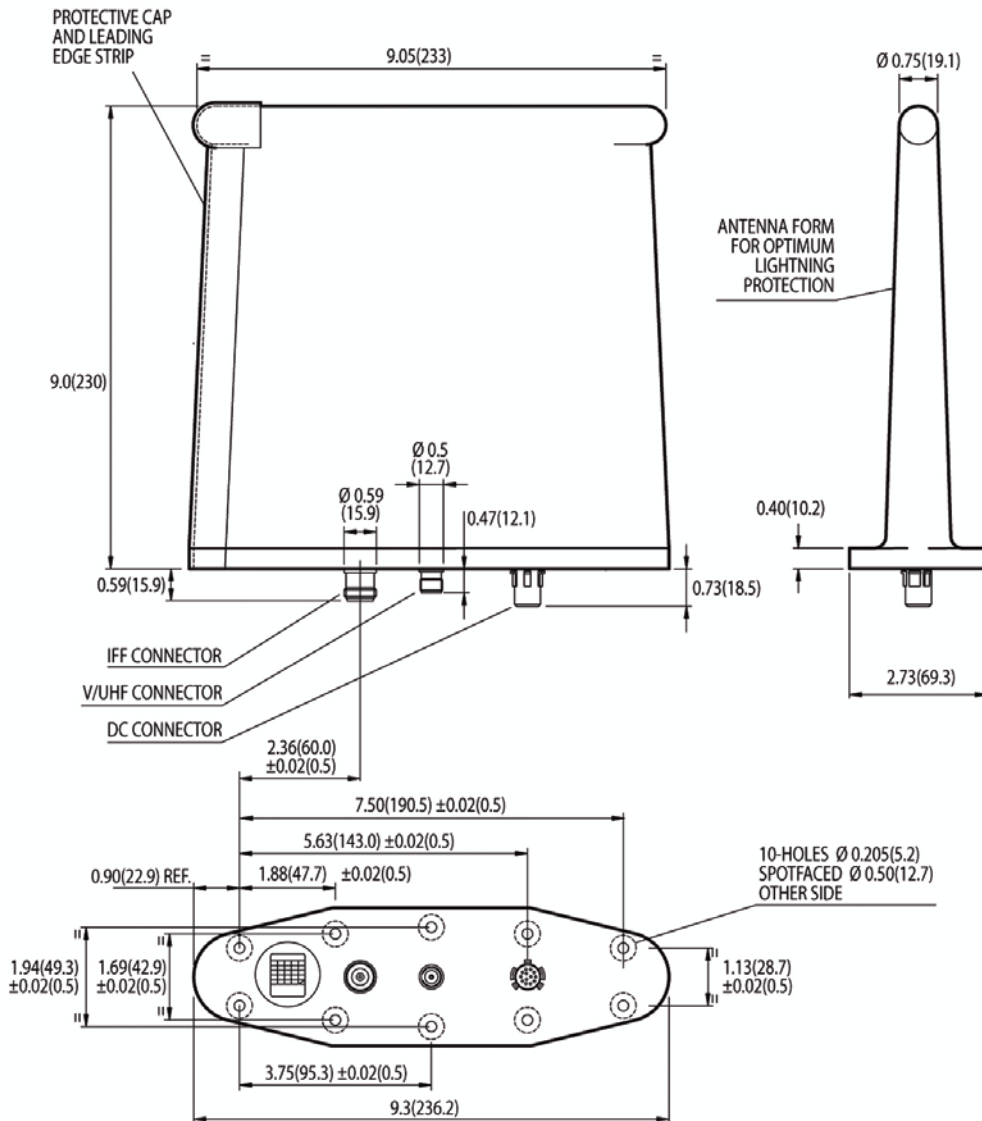


Specification

Frequency	30 – 88MHz	(Tuned)	Connectors	Type N Female
	108 – 420MHz	(Passive)		Type TNC Female
	1030 – 1090MHz	(Passive)		Type D38999/20WC 98PN
Impedance	50 Ω		Weight	3.75lbs (1.7kgs) (Nominal)
V.S.W.R.	30 – 88MHz	2.5:1	Use of WET FIT conductive gasket kit	
	108 – 116MHz	3.5:1	10-500-11-567K or DRY FIT conductive gasket	
	116 – 174MHz	2.5:1	10-500-11A-567 is specified.	
	225 – 420MHz	2.0:1		
	1030 - 1090MHz	1.5:1		
Gain	-13/-7dBi 30/88MHz			

10-150-08

Multi Band Antenna 30-600MHz + Guard + IFF



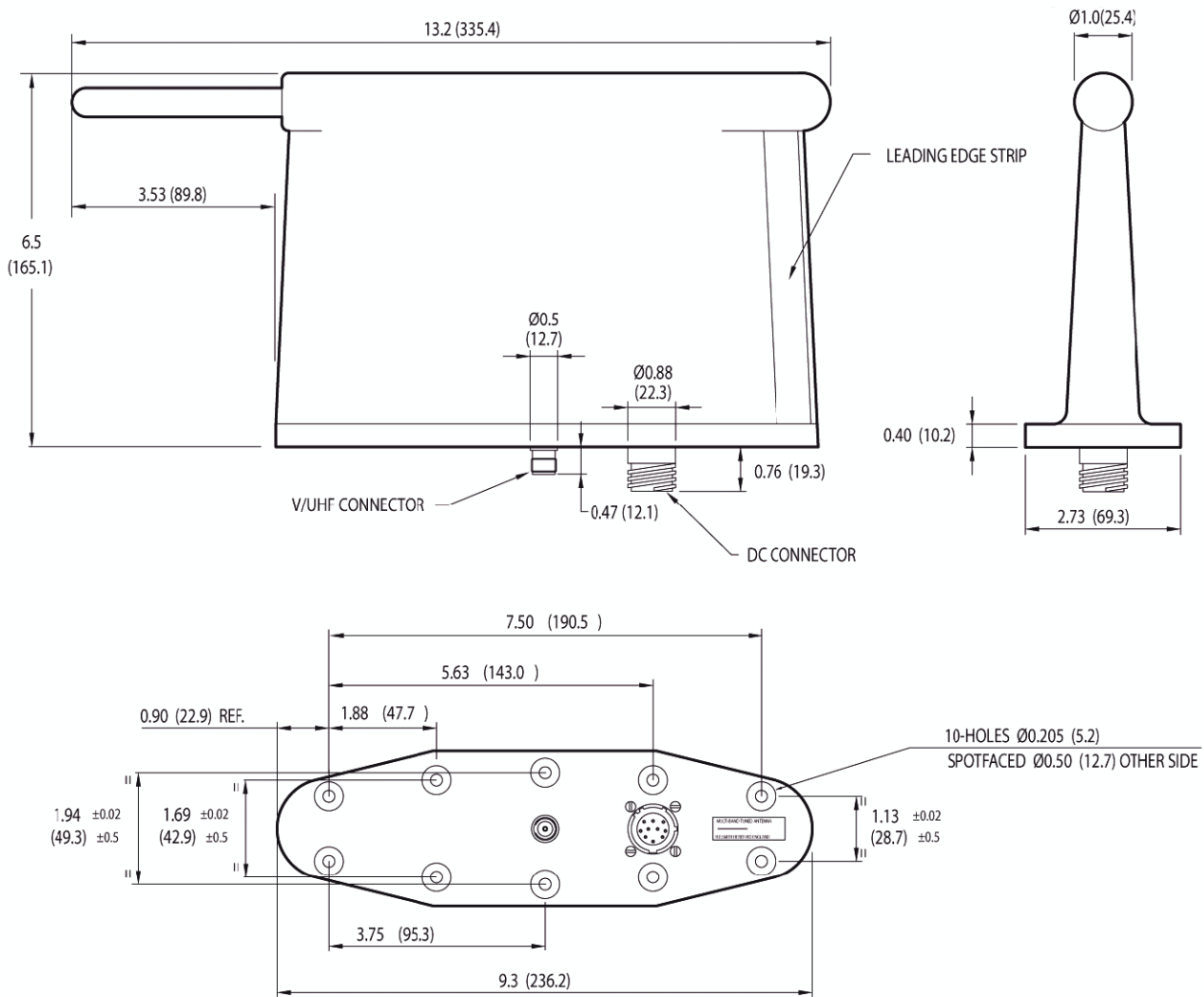
Specification

Frequency	30 – 88MHz	(Tuned)	R.F Connector	TNC Female
	108 – 174MHz	(Tuned)	IFF Connector	N Female
	225 – 600MHz	(Tuned)	DC Connector	D38999/49WB35PN
	1030 – 1090MHz IFF	(Passive)	Weight	2.2lbs (1.0kgs) (Nominal)
Impedance	50 Ω			
V.S.W.R.	30 – 88MHz	< 2.5:1	NOTE: 10-150-08-S4-1 Rockwell Collins equivalent 013-1980-040. Other Mil series connectors available on request.	
	108 – 174MHz	< 2.5:1		
	225 – 600MHz	< 2.0:1		
	1030 – 1090MHz	1.5:1		
Polarisation	Vertical		Use of DRY FIT conductive gasket 10-500-11A-466 or WET FIT conductive gasket kit 10-500-11-466K is specified.	
Radiation	Omni-directional			
Gain	-12.5/-5dBi 30/88MHz			



10-150-21

Multi Band Antenna 30-600MHz + Guard



Specification

Frequency	30 – 88MHz 108 – 174MHz 225 – 600MHz	(Tuned) (Tuned) (Tuned)	Gain	-13/-7dBi 30/88MHz
Impedance	50 Ω		R.F Connector	TNC Female
V.S.W.R.	30 – 88MHz 108 – 174MHz 225 – 600MHz	< 2.5:1 2.5:1 2.0:1	DC Connector	D38999/20WC98PN
Polarisation	Vertical		Weight	1.5lbs (0.7kgs) (Nominal)
Radiation	Omni-directional			Use of DRY FIT conductive gasket 10-500-11A-466 or WET FIT conductive gasket kit 10-500-11-466K is specified.

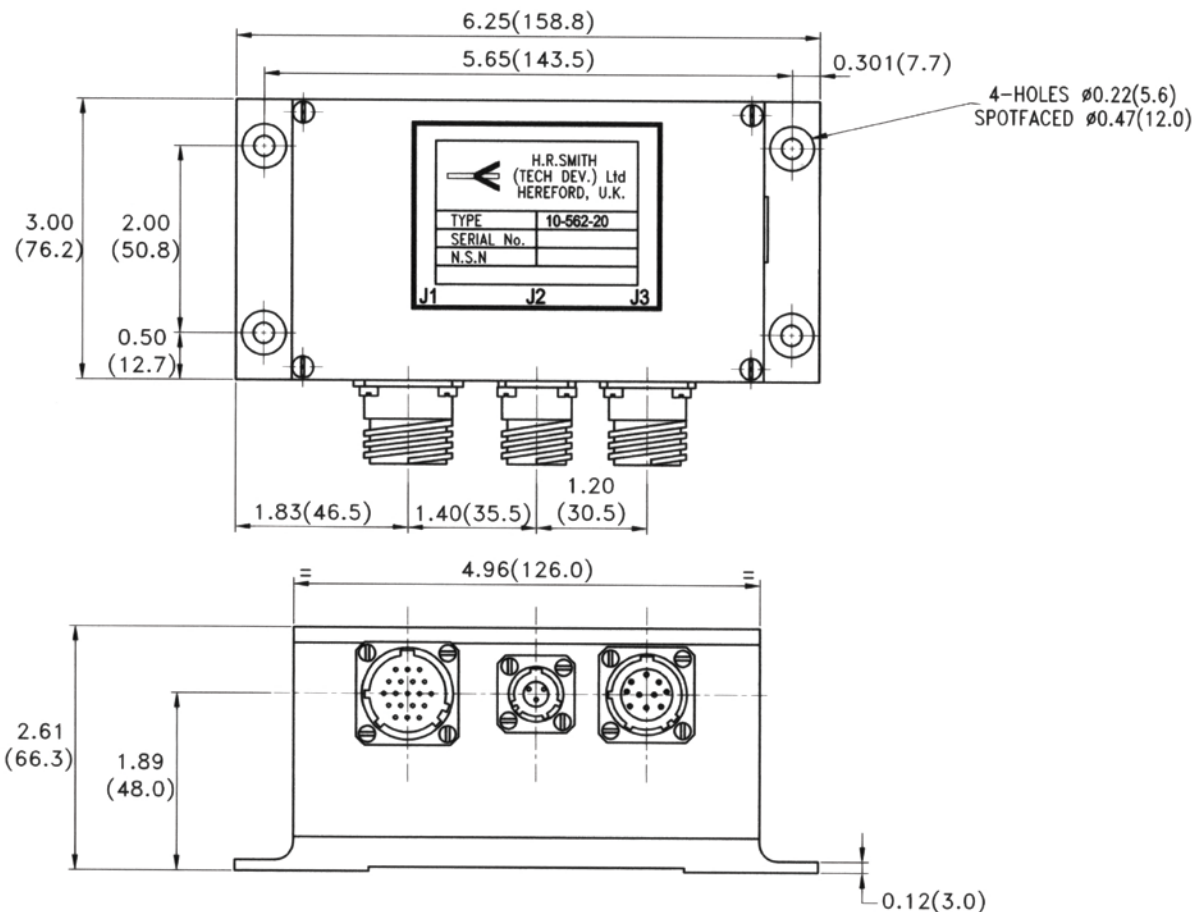
10-562 Series

Logic Converter

Used in conjunction with the 10-150 series of antennas, the logic converter accepts frequency data directly from the designated transceiver and translates the data virtually simultaneously to the correct antenna tuning code.



- 3 Connectors
- Lightweight
- Rugged design
- Ultra-Fast switching speed
- Qualified to MIL-STD-461, 810G
- Compatible with latest software defined radios



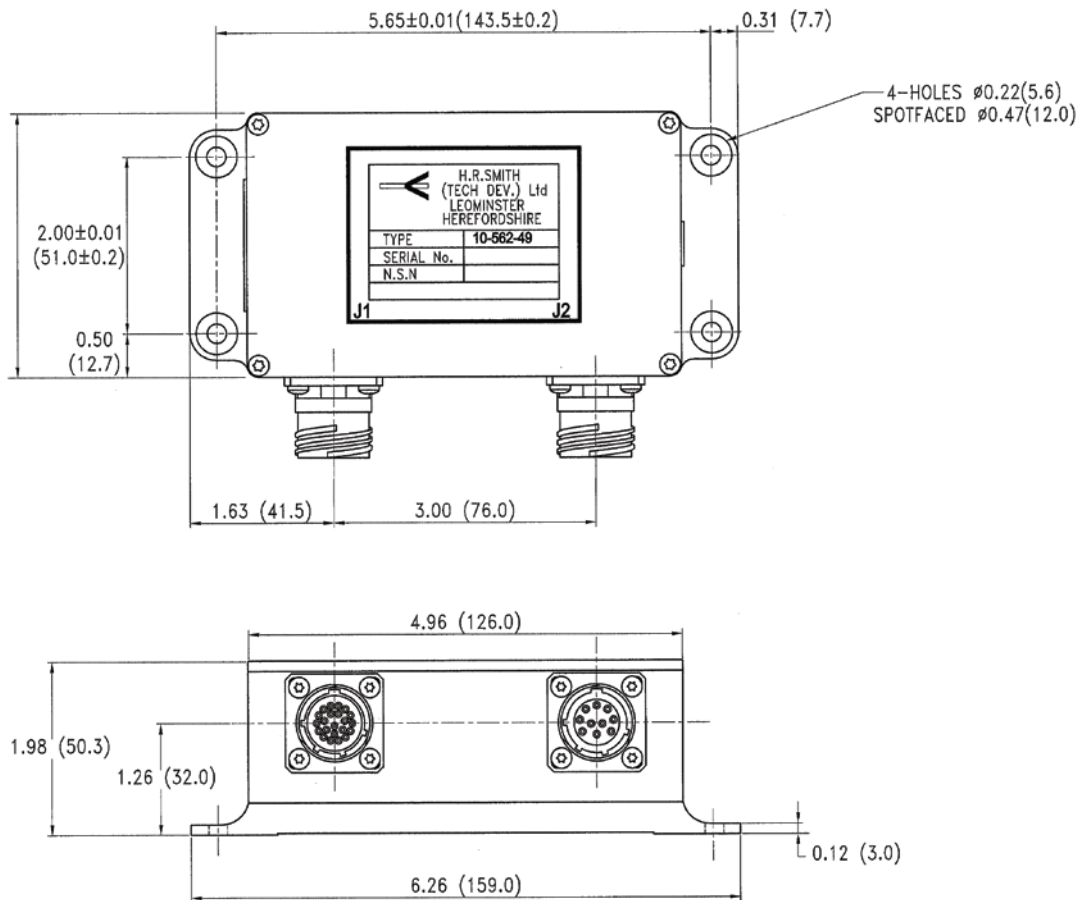
10-562 Series

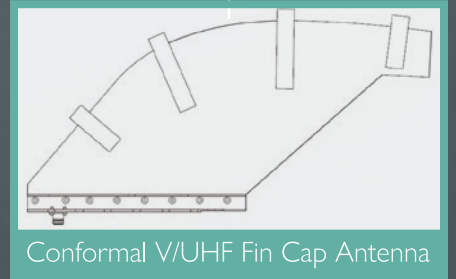
Low Profile Logic Converter

Designed for where space, weight and simple connectivity is important. This low profile converter offers the ideal solution without compromise.



- 2 Connectors
- Low profile: reduced height
- Lightweight
- Rugged design
- Reduced connectivity; reduced cabling
- Ultra-Fast switching speed
- Qualified to MIL-STD-461, 810G
- Compatible with latest software defined radios





Integrated Antennas Without Compromise



Conformal Antennas

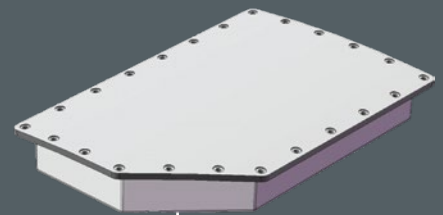
We offer solutions for all types of conformal antennas.

Our team of skilled engineers in the UK is committed to working closely with you to develop conformal antennas that save space, enhance visual aesthetics, and seamlessly integrate into the airframe without compromising aerodynamics.

Conformal ELT Antenna

406/243/121.5 MHz

Glass fibre reinforced polymer



CONTACT US

Scan the QR code to find out how we can help you with conformal antennas



Our innovative manufacturing and in-house testing facilities guarantees optimal performance and reliability across various areas such as communications, navigation, and ELTs.

Our antennas are designed to save space, enhance visual aesthetics, and seamlessly integrate into the airframe without compromising aircraft aerodynamics and antenna performance.

Collaboration is at the core of our approach. Our engineers take great care working alongside your team to understand your specific requirements, ensuring that the end product delivers on expectations.

We pride ourselves on reliability from the start. Thanks to our state-of-the-art in-house testing facilities, you can trust that our antennas are rigorously evaluated and fine-tuned to deliver exceptional performance.

With our innovative manufacturing process, we guarantee optimal performance and reliability with all of our antennas.

Tornado Conformal ELT





+44(0) 1568 708 744 | sales@hr-smith.com | hr-smith.com