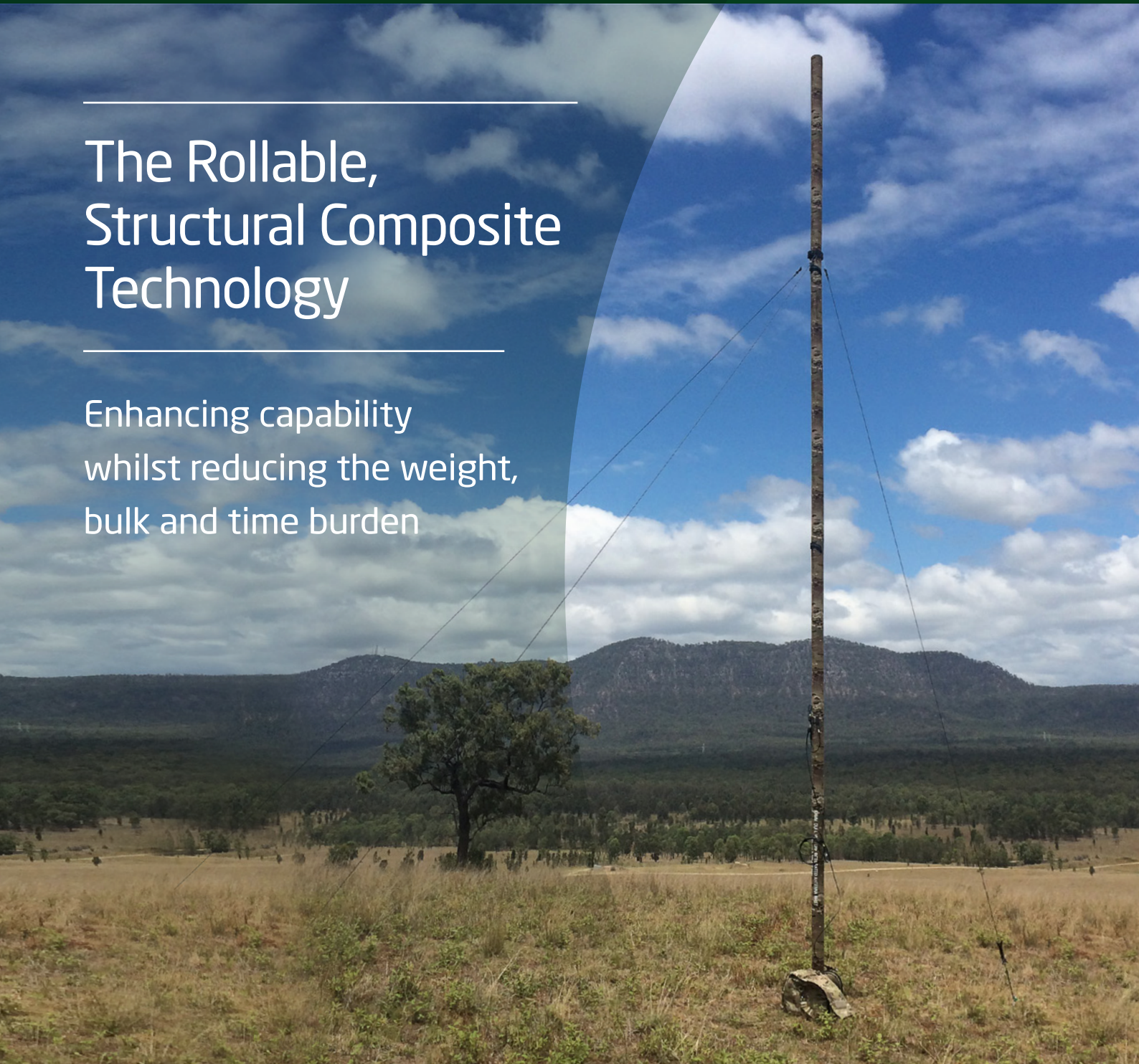


RolaTube Expeditionary Systems Ltd (REX)

The Rollable, Structural Composite Technology

Enhancing capability
whilst reducing the weight,
bulk and time burden



COMPACT / VERSATILE / LIGHTWEIGHT / DURABLE / RUGGED

www.rolatube-expeditionary-systems.com

RolaTube Expeditionary Systems (REX) delivers products and systems utilising its revolutionary and proprietary Bi Stable Reeled Composite Technology to customers in the Defence, Homeland Security, Emergency Services, Disaster Relief, UN and NGO sectors for Dismounted and On Platform Integration

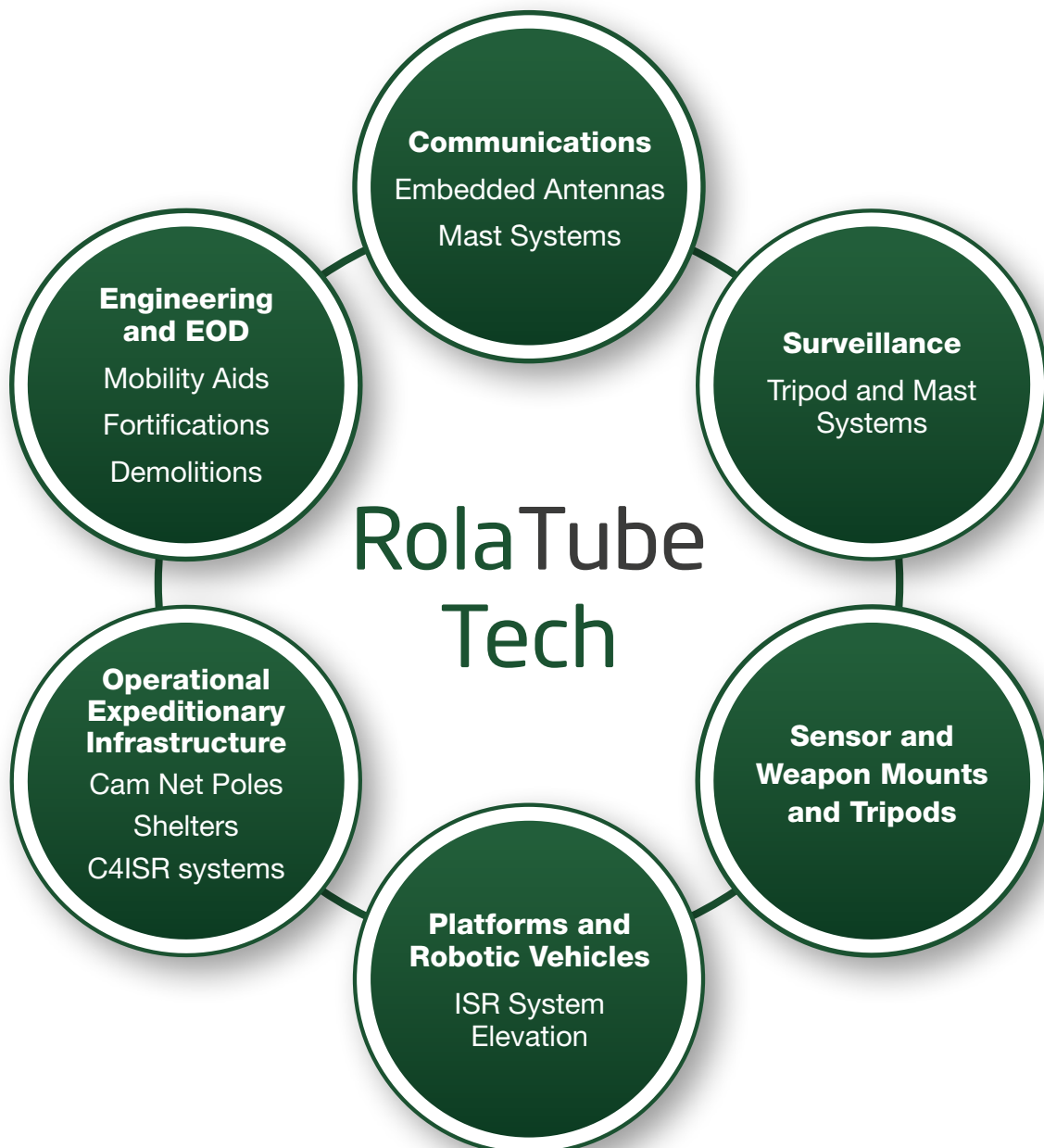
RolaTube systems and products have now been In-Service with the UK, US and other leading militaries of the world for a number of years and used on combat operations. They are thus proven by the most exacting customers and in the most arduous environmental conditions.



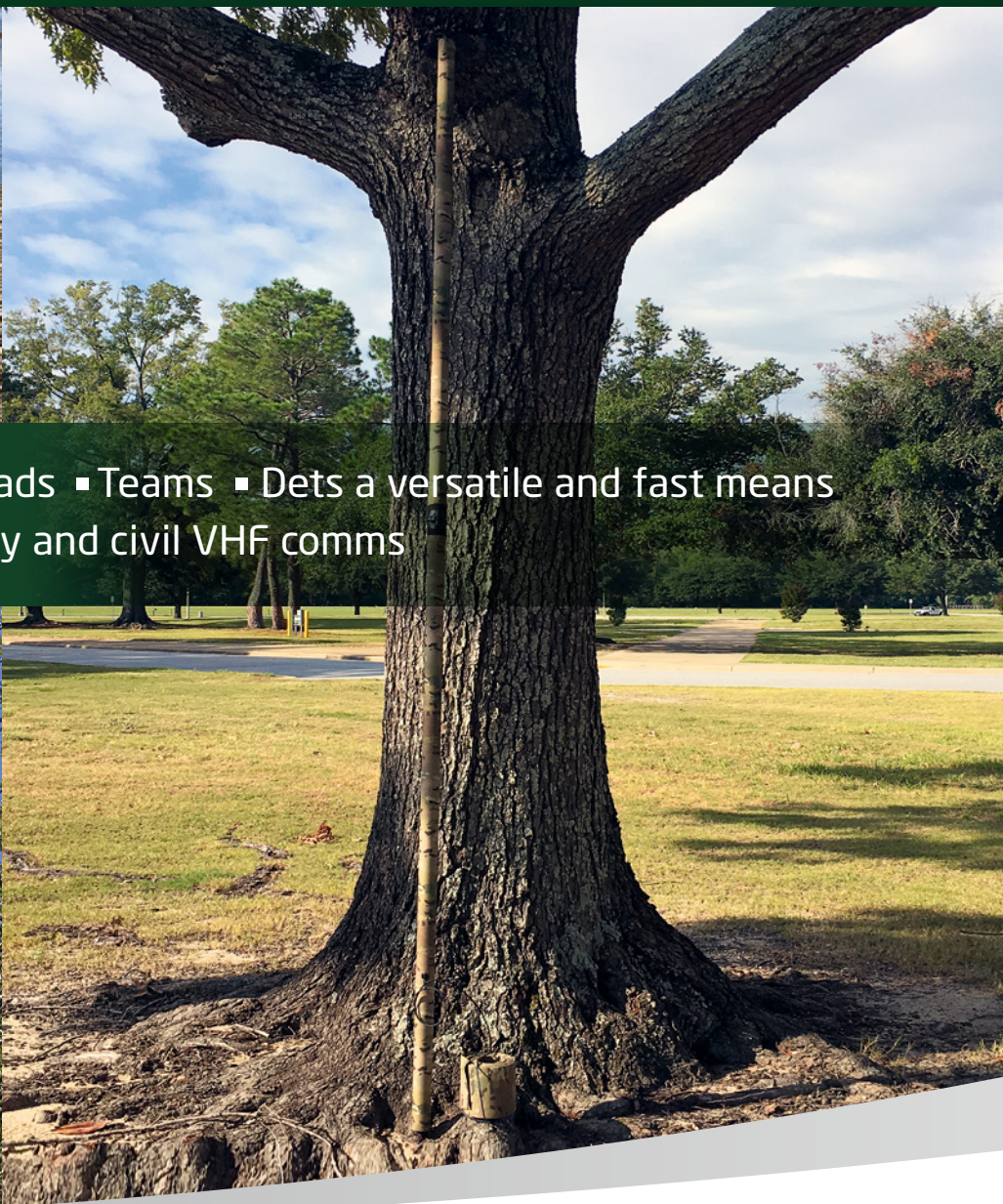
Wide application range of the technology

The technology can be applied to a multitude of applications and these are outlined on the diagram below. The technology will deliver reduced weight, more speed, less bulk, and greater simplicity and versatility.

RolaTube welcomes partnerships with commercial companies or governmental organisations in order to understand requirements and develop new products that fill capability gaps or deliver performance enhancement.



Squad IAM 3.5m 30-300MHz VHF omni Antenna (Range Extender)



Delivers to ■ Pls ■ Squads ■ Teams ■ Dets a versatile and fast means to range extend military and civil VHF comms

Part Numbers	Multicam: 952-203500-1-0 Black: 952-203500-3-0
Freq Range	30-300MHz
Antenna Type	Vertically Polarised Omni Directional Dipole
VSWR	30-50MHz: <4:1 50-300MHz: <3:1
Power Rating	25w continuous
Impedance	50Ohms
RF Cable	1m length flying lead from base
Connector	TNC(M)
Height	3.5m / 11.5ft (2" diam)
Weight	1.4kg / 3.1lb
Packed Dims	15 x 15 x 15cm / 6 x 6 x 6"
Hole in top	Hole in top of antenna to allow for elevation of antenna into a tree or side of building using paracord

RAMM 7m 30-108 & 225-512MHz VHF/UHF omni Antenna

Available in three variants:

VHF 30-108MHz

UHF 225-512MHz

Dual VHF/UHF 30-108 & 225-512MHz with optional L Band (1-2 GHz) omni Antenna

Power: UHF, 50w VHF, 25w

VSWR: <3.5:1

Nominal Impedance: 50Ω

Polarisation: Linear vertical

Deployed Height: 23ft

Rolled Dimensions: 8 x 10 inches

System Weight: ~12lb

Time to set up / take down with 2 x Pers: Less than 5 minutes

Wind: Up to 60mph when properly guyed / secured



Item	Part Number
7m 3" VHF / UHF 30-108 & 225-512 RAMM Multicam	952-307002-1-1
7m 3" VHF / UHF 30-108 & 225-512 RAMM Black	952-307002-3-1
7m 3" VHF 30-108 RAMM Multicam	952-307000-1-1
7m 3" VHF 30-108 RAMM Black	952-307000-3-1
7m 3" UHF 225-512 RAMM Multicam	952-307001-1-1
7m 3" UHF 225-512 RAMM Black	952-307001-3-1

Gain dBi	
50MHz	-2.5
70MHz	-0.5
100MHz	-2.5
200MHz	-2
300MHz	-1
400MHz	0
500MHz	+1

Mast Systems (Single Skin 2, 3 & 4" Diameter)



Benefiting from the characteristics of modern composite technology, for over fifteen years RolaTube masts have been providing a unique capability for the mounting of antenna, cameras and sensors in the Expeditionary environment. From tried and trusted systems to the new products continuously being developed, RolaTube masts continue to deliver the benefits of exceptionally low weight and small volume when compared to competitive technology.

Standard single skin masts are currently 2", 3" and 4", with deployment heights ranging from 1m to 10m and top loads of up to 12kg (26lb). Double skin masts of 3" diameter are available with top loads of up to 18kg (38lb)

Mast Systems (Double Skin 3" Diameter)



Double Mast Systems work by combining two single masts, one slid inside the other, which delivers a substantial increase in torsional strength and top loading capability.

This characteristic makes double mast systems ideal for those sensors and antennas that are in excess of 5kg and require high levels of stability with minimal penalty in terms of weight, volume or deployment times.

Suitable for top loads up to 20kg

Suitable for systems with directional antennas or cameras

Max Wind Speed: 60mph

RolaTube Mast / Tripod Combination System



Double 5m 3" Mast / Tripod System with a Radwin MicroWave antenna deployed

Single Mast / Tripod System with RolaCage deploying an Aruba Wifi Access Point

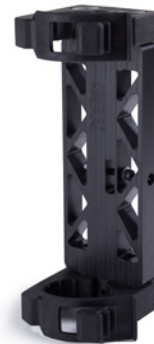
For applications where the tripod system alone does not achieve the desired height for sensor or aerial mounting, REX offers a range of Mast/Tripod combinations that link the benefits of both systems into a single package. Single skin versions can take loads of up to 5kg (11lb), double skin versions can take loads of up to 18kg (38lb).

By combining the stability of a tripod with the height of a mast, the unguyed Mast/Tripod systems create a unique solution for rapid deployment of sensors and aerals in the Expeditionary sector, while retaining the valuable portability benefits of lightweight and very low packed volumes. For higher masts or high wind environments, ancillary kits are available to guy the mast and ensure stability.

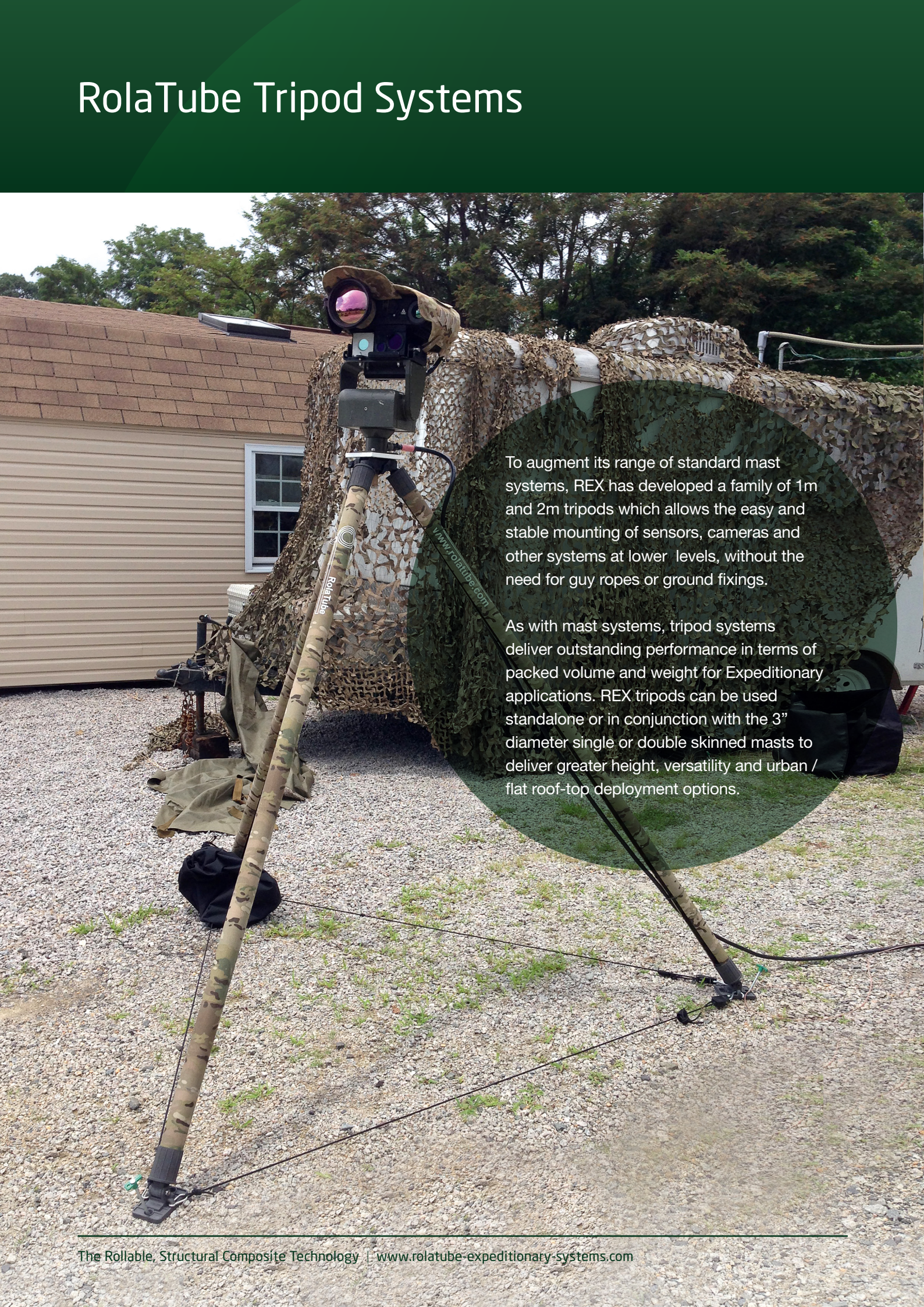
Mast Ancillaries



REX has developed a range of Mast Ancillaries which either assist mast deployment, or provide solutions for mounting different payloads onto the deployed mast. Bespoke mast ancillaries for specific customer requirements are part of the service provided by REX.



RolaTube Tripod Systems



To augment its range of standard mast systems, REX has developed a family of 1m and 2m tripods which allows the easy and stable mounting of sensors, cameras and other systems at lower levels, without the need for guy ropes or ground fixings.

As with mast systems, tripod systems deliver outstanding performance in terms of packed volume and weight for Expeditionary applications. REX tripods can be used standalone or in conjunction with the 3" diameter single or double skinned masts to deliver greater height, versatility and urban / flat roof-top deployment options.

Expeditionary Solar Power Array: PAM™ Outpost 400 Watts



Nishati Inc: Advanced Solar Power Arrays
ideal for expeditionary operations:
www.nishati-us.com info@nishatius.com

Recent Award for 5 Year BPA from the US Marine Corps (USMC). Significantly lighter and with less bulk than traditional system. Can be used singly or daisy chained for FOB Solar Power farms. Whole Array rolls up and is lighter and more compact than previous systems.

Key Specs:

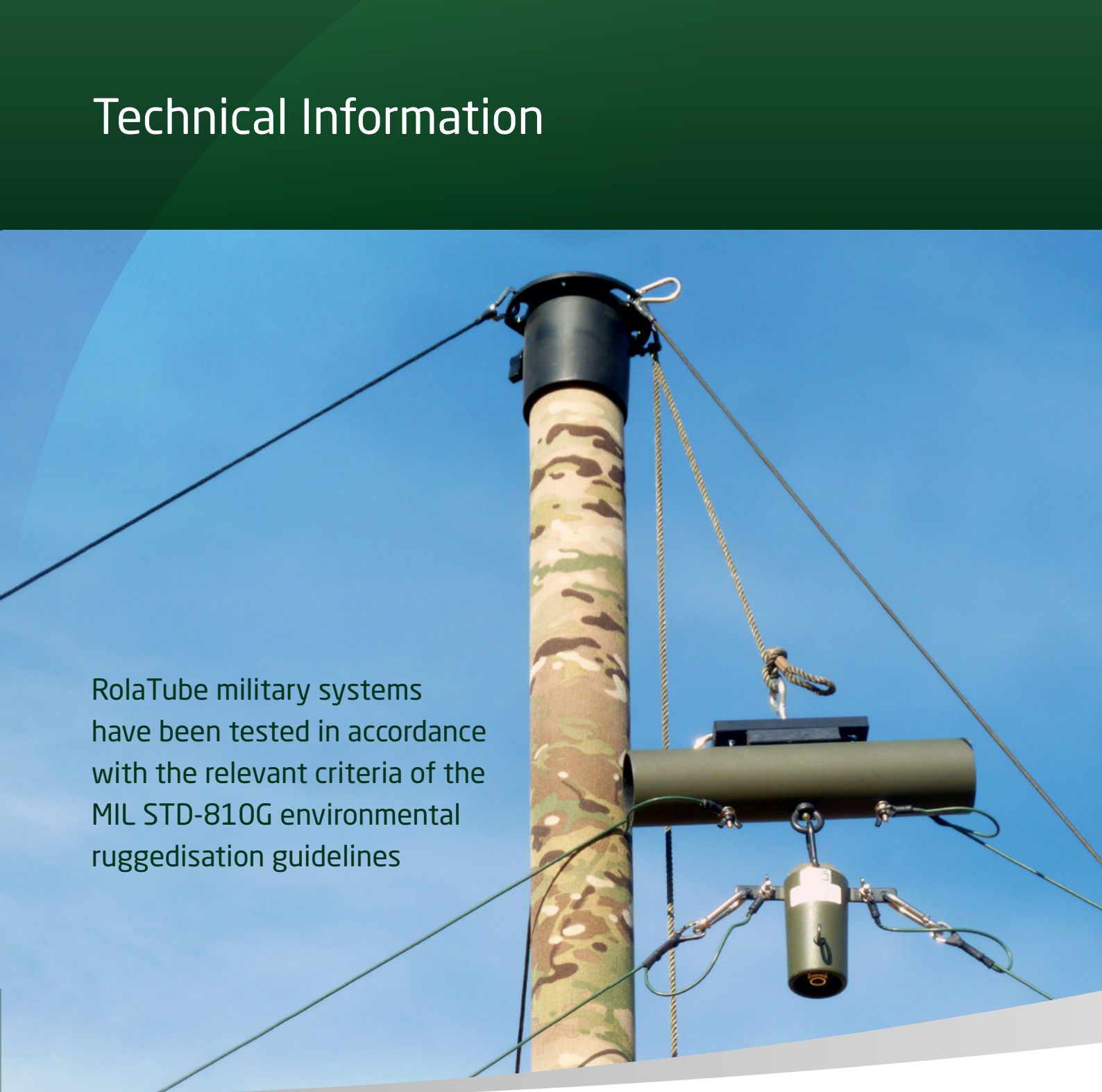
- Power: 420 Watts
- Over 500W/hr battery capacity
- Up to 120 Watts of AC power
- Charge BB2590 batteries to 85% in 1 hour
- Entire system in transport case <80lb.
- Case dimensions: 48" x 17" x 9" (~4cu ft)
- Deployed foot print <4ft x 10ft
- 50mph wind rating using sandbags
- Set up or package in < 10 minutes

Camouflage Net Pole Support System

In order to support the next generations of sensor defeat camouflage netting, REX has developed a RolaTube based Camouflage Net Support System. When compared to traditional sectional aluminium pole systems, the RolaTube system dramatically reduces both deployment times and the bulk and weight that needs to be carried into the field.

Being manufactured from highly robust composite and plastic materials, the RolaTube Camouflage Net Support System also delivers significant benefits in terms of reduced thermal radiation and microwave absorption.

Technical Information



RolaTube military systems have been tested in accordance with the relevant criteria of the MIL STD-810G environmental ruggedisation guidelines

High Temperature

- Storage (Hot Dry, A1: 71°C)
- Operation (Hot Dry, A1: 49°C)

Low Temperature

- Storage (Basic Cold, C1: -33°C)
- Operation (Basic Cold, C1: -32°C)

Masts and tripods are manufactured in thermoplastic composites which are non-conductive.

All masts can be used in wind speeds up to 60mph when correctly guyed and deployed in accordance with the user guide.

Top load varies depending on mast height and diameter but is up to 12kg for single masts and 20kg for double masts. It is the responsibility of the user to ensure the safety and stability of the top load in accordance with the user guide.

REX Product List

Part No	Description
Single Mast Systems	
950-202000-1-1	2m 2" Mast System Multicam
950-202000-3-1	2m 2" Mast System Black
950-202000-5-1	2m 2" Mast System Orange
950-203000-1-1	3m 2" Mast System Multicam
950-203000-3-1	3m 2" Mast System Black
950-203000-5-1	3m 2" Mast System Orange
950-204000-1-1	4m 2" Mast System Multicam
950-204000-3-1	4m 2" Mast System Black
950-204000-5-1	4m 2" Mast System Orange
950-303000-1-1	3m 3" Mast System Multicam
950-303000-3-1	3m 3" Mast System Black
950-303000-5-1	3m 3" Mast System Orange
950-304000-1-1	4m 3" Mast System Multicam
950-304000-3-1	4m 3" Mast System Black
950-304000-5-1	4m 3" Mast System Orange
950-305000-1-1	5m 3" Mast System Multicam
950-305000-3-1	5m 3" Mast System Black
950-305000-5-1	5m 3" Mast System Orange
950-307000-1-1	7m 3" Mast System Multicam
950-307000-3-1	7m 3" Mast System Black
950-307000-5-1	7m 3" Mast System Orange
956-410000-3-1	10m 4" Mast / RolaCage System Black
956-408000-3-1	8m 4" Mast / RolaCage System Black
Double Mast Systems	
950-302200-1-1	2m 3" Double Mast System Multicam
950-302200-3-1	2m 3" Double Mast System Black
950-302200-5-1	2m 3" Double Mast System Orange
950-303200-1-1	3m 3" Double Mast System Multicam
950-303200-3-1	3m 3" Double Mast System Black
950-303200-5-1	3m 3" Double Mast System Orange
950-304200-1-1	4m 3" Double Mast System Multicam
950-304200-3-1	4m 3" Double Mast System Black
950-304200-5-1	4m 3" Double Mast System Orange
950-305200-1-1	5m 3" Double Mast System Multicam
950-305200-3-1	5m 3" Double Mast System Black
950-305200-5-1	5m 3" Double Mast System Orange
950-307200-1-1	7m 3" Double Mast System Multicam
950-307200-3-1	7m 3" Double Mast System Black
950-307200-5-1	7m 3" Double Mast System Orange
Integrated Antenna Systems	
960-307000-1-1	7m 3" VHF 30-108 RAMM Multicam no bag
960-307000-3-1	7m 3" VHF 30-108 RAMM Black no bag
952-307000-1-1	7m 3" VHF 30-108 RAMM Multicam with bag
952-307000-3-1	7m 3" VHF 30-108 RAMM Black with bag
952-307000-5-1	7m 3" VHF 30-108 RAMM Orange with bag
960-307001-1-1	7m 3" UHF 225-512 RAMM Multicam no bag
960-307001-3-1	7m 3" UHF 225-512 RAMM Black no bag
952-307001-1-1	7m 3" UHF 225-512 RAMM Multicam with bag
952-307001-3-1	7m 3" UHF 225-512 RAMM Black with bag
952-307001-5-1	7m 3" UHF 225-512 RAMM Orange with bag
960-307002-1-1	7m 3" VHF/UHF 30-108&225-512MHz RAMM Multicam no bag
960-307002-3-1	7m 3" VHF/UHF 30-108&225-512MHz RAMM Black no bag
952-307002-1-1	7m 3" VHF/UHF 30-108&225-512MHz RAMM Multicam with bag
952-307002-3-1	7m 3" VHF/UHF 30-108&225-512MHz RAMM Black with bag
952-307002-5-1	7m 3" VHF/UHF 30-108&225-512MHz RAMM Orange with bag

Part No	Description
952-203500-1-1	3.5m 2" Squad IAM Multicam
952-203500-3-1	3.5m 2" Squad IAM Black
Integrated Antenna System Ancils	
952-307010-1-1	Conversion Kit to Double RAMM
207-900001	3" Mast L-Band Ancillary Kit 880-2175MHz
207-004000	Ancillaries Kit for 7m RAMM
800-002105	Secondary Cuff Kit RAMM
800-000098	Collar for 3" RAMM Mast (with locating lugs)
800-000105	Secondary Cuff
108-000013	Cable Assy RAMM BNC to TNC (Male)
108-000014	Cable Assy RAMM BNC to BNC (Male)
108-000015	Cable Assy RAMM BNC to N-Type (Male)
108-000016	Cable Assy RAMM TNC to TNC (Male)
108-000017	Cable Assy RAMM TNC to N-Type (Male)
108-000019	Cable Assy RAMM TNC to BNC
Combination Systems	
956-304000-1-1	4m 3" Mast / RolaCage System Multicam
956-304000-3-1	4m 3" Mast / RolaCage System Black
956-305000-1-1	5m 3" Mast / RolaCage System Multicam
956-305000-3-1	5m 3" Mast / RolaCage System Black
956-307000-1-1	7m 3" Mast / RolaCage System Multicam
956-307000-3-1	7m 3" Mast / RolaCage System Black
956-307000-5-1	7m 3" Mast / RolaCage System orange
957-201000-1-1	3m 3" Single Mast / 1m Tripod / Adaptor Multicam
957-201003-1-1	3m 3" Single Mast / 2m Tripod / Adaptor Multicam
957-201003-3-1	3m 3" Single Mast / 2m Tripod / Adaptor Black
957-201004-1-1	4m 3" Single Mast / 2m Tripod / Adaptor Multicam
957-201004-3-1	4m 3" Single Mast / 2m Tripod / Adaptor Black
957-201005-1-1	5m 3" Single Mast / 2m Tripod / Adaptor Multicam
957-201005-3-1	5m 3" Single Mast / 2m Tripod / Adaptor Black
957-201007-1-1	7m 3" Single Mast / 2m Tripod / Adaptor Multicam
957-201007-3-1	7m 3" Single Mast / 2m Tripod / Adaptor Black
957-201033-1-1	3m 3" Double Mast / 2m Tripod / Adaptor Multicam
957-201033-3-1	3m 3" Double Mast / 2m Tripod / Adaptor Black
957-201044-1-1	4m 3" Double Mast / 2m Tripod / Adaptor Multicam
957-201044-3-1	4m 3" Double Mast / 2m Tripod / Adaptor Black
957-201055-1-1	5m 3" Double Mast / 2m Tripod / Adaptor Multicam
957-201055-3-1	5m 3" Double Mast / 2m Tripod / Adaptor Black
961-304001-1-1	4m 3" Mast / RolaCage / Cisco Mount / Cuff System Multicam Thales
961-304001-3-1	4m 3" Mast / RolaCage / Cisco Mount / Cuff System Black Thales
980-304002-1-1	4m Mast / 2m Tripod / Aruba 275 AP Mount / Adaptor / Cage System Multicam
980-304002-3-1	4m Mast / 2m Tripod / Aruba 275 AP Mount / Adaptor / Cage System Black
Tripods	
953-201000-1-1	Tripod System 1m 2" Multicam
953-201000-3-1	Tripod System 1m 2" Black
953-201000-5-1	Tripod System 1m 2" Orange
953-202000-1-1	Tripod System 2m 2" Multicam
953-202000-3-1	Tripod System 2m 2" Black
953-202000-5-1	Tripod System 2m 2" Orange
Mast Only	
900-201000-1-0	1m 2" Mast Multicam
900-201000-3-0	1m 2" Mast Black

Part No	Description
900-201001-1-0	1m 2" Mast Multicam with Logo
900-201001-3-0	1m 2" Mast Black with logo
900-202000-1-0	2m 2" Mast Multicam
900-202000-3-0	2m 2" Mast Black
900-202000-5-0	2m 2" Mast Orange
900-203000-1-0	3m 2" Mast Multicam
900-203000-3-0	3m 2" Mast Black
900-203000-5-0	3m 2" Mast Orange
900-204000-1-0	4m 2" Mast Multicam
900-204000-3-0	4m 2" Mast Black
900-204000-5-0	4m 2" Mast Orange
900-255000-3-0	5m 2.5" Mast Black
900-302000-1-0	2m 3" Mast Multicam
900-302000-3-0	2m 3" Mast Black
900-303000-1-0	3m 3" Mast Multicam
900-303000-3-0	3m 3" Mast Black
900-303000-5-0	3m 3" Mast Orange
900-304000-1-0	4m 3" Mast Multicam
900-304000-3-0	4m 3" Mast Black
900-304000-5-0	4m 3" Mast Orange
900-305000-1-0	5m 3" Mast Multicam
900-305000-3-0	5m 3" Mast Black
900-305000-5-0	5m 3" Mast Orange
900-307000-1-0	7m 3" Mast Multicam
900-307000-3-0	7m 3" Mast Black
900-307000-5-0	7m 3" Mast Orange

Accessories	
800-007102	RolaCage 7102 v2 with Removable Bars 5-8m
800-007104	RolaCage V1 - Thales Australia via Spearpoint
800-007108	RolaCage 8m - 10m 4" Mast
207-000094	Antenna Spigot Mount Black Anodised for 3" End Cap
207-000035	Antenna Spigot Adaptor 30mm - 17mm
207-000101	Antenna Spigot Reducer 30mm - 25mm
207-000029	End Cap Camera Plug
207-005701	End Cap Camera Mount
800-000008	Tripod Adaptor for 3" Single Mast
800-000012	Tripod Adaptor for 3" Double Mast
800-000107	WinT Aerial Grounding Kit
800-000010	Side Antenna Mount Assy for Radwin
800-000032	Cambium Mount
800-000106	Antenna Mount WIN-T Aruba
800-000034	Cisco Antenna Mount Assembly
800-000036	Twin Antenna T Bar Mount for 8m 4" Mast

Pegs	
207-002001	Rock Pegs 25cm Steel Green Top
207-002002	Rock Pegs Set of 6 x 25cm Steel (Green Top)
207-002003	Rock Pegs Set of 3 x 25cm Steel (Green Top)
207-002005	Peg Soft Ground
	12" army green extra HD plastic tent peg

Guys	
207-004122	Guy 3.5m / Std Black Cord / Metal Clip (Set of 3)
207-004004	Guy 5.5m / Std Black Cord / Metal Clip (Set of 3)
207-004006	Guy 5.5m / Std Black Cord / Plastic Clip orange Tie (Set of 3)
207-004007	Guy 5.5m / H/D Black Cord / Ratchet / Metal Clip (Set of 3)
207-004101	Guy 7.5m / Std Black Cord / Metal Clip (Set of 3)

Part No	Description
207-004108	Guy 7.5m / Std Black Cord / Plastic Clip (Set of 3)
207-004107	Guy 7.5m / H/D Black Cord / Ratchet / Metal Clip (Set of 3)
207-004113	Guy 10.0m / H/D Black Cord / Ratchet / Metal Clip (Set of 3)
207-004114	Guy 10.0m / H/D Black Cord / Ratchet / Plastic Clip (Set of 3)
207-004109	Guy 12.0m / Std Black Cord / Metal Clip (Set of 3)
207-004110	Guy 12.0m / Std Black Cord / Plastic Clip (Set of 3)
207-004118	Guy 8.0m Triangulated / H/D Black Cord / Ratchet / Metal Clip (Set of 3 for 8m 4" Mast)
207-004120	Guy 10.0m Triangulated / H/D Black Cord / Ratchet / Metal Clip (Set of 3 for 10m 4" Mast)
207-004121	Guy 13.0m / H/D Black Cord / Ratchet / Metal Clip (Set of 3 for 8 & 10m 4" Mast)

Ancil Kits	
207-150002	Ancil Kit, 4m / 5m Single Mast
800-005106	Secondary Cuff Kit for 4m / 5m Single Mast
207-150004	Ancil Kit, 4m / 5m Double Mast
800-005206	Secondary Cuff Kit for 4m / 5m Double Mast
207-150007	Ancil Kit, 7m Single Mast
800-007106	Secondary Cuff Kit for 7m Single Mast
207-170004	Ancil Kit, 7m Double Mast
800-007206	Secondary Cuff Kit for 7m Double Mast
800-000105	Secondary Cuff Single

Manuals	
209-000001	Manual 7m 3" RAMM
209-000003	Manual Tripod System 1 & 2m
209-000006	Manual RolaCage for 3" Mast
209-000007	Manual 3" Mast Side Antenna Mount
209-000012	Manual for 3" Double System
209-000110	Manual 2" Single Mast Systems 2, 3 & 4m
209-005985	Manual 3" Single Mast Systems 2, 3, 4, 5 & 7m

Bags	
502-003052	Bag for Camo Net Kit
502-003042	Black Extra Small Bag 5.5" x 5.5" x 10"
502-003051	Bag Small Black Cordura Berry Compliant 8" (H) x 13" (W) x 8" (D)
502-003043	Bag Small Black Version 2 13" x 8" x 8"
502-003047	Bag Medium Black Cordura size 13" x 11" x 10"
502-003050	Bag Medium Black Cordura Berry Compliant 11" (H) x 13" (W) x 10" (D)
502-003044	Bag Medium Black Version 2 13" x 11" x 10"
502-003053	Bag Large Black Cordura 12" (H) x 15" (W) x 12" (D)
502-003046	Bag Large Black Cordura Berry Compliant 12" (H) x 15" (W) x 12" (D)
502-003045	Bag Large Black, 15" x 12" x 11"

End Caps	
800-001004	End Cap 2"
800-001007	End Cap 2" Top with wing screw (supplied separately)
800-001050	End Cap 3" 1050 Top v2 with Single Insert
800-001051	End Cap 3" 1051 Base v2 Single
800-001052	End Cap 3" 1050 Top v2 End Cap with Lockpin
800-001055	End Cap 3" 1050 Top V2 Double
800-001056	End Cap 3" 1051 Base V2 Double
800-001057	End Cap 3" with Locking Pin
800-001061	Hinged Base Plate for 3" Double Mast
800-004104	End Cap 4"
800-005107	Secondary Cuff 4" Mast



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