

RSR 420

C-band Mobile Surveillance and Target Acquisition Radar

FEATURES

- 3D Multi-Mode Radar
- High performance surveillance, self-defence, ground controlled intercept and weapon support application
- Sea surface surveillance capability
- Separate mission control shelter
- Solid-state transmitter
- Digital Beam-forming on receive
- Coherent Pulse Doppler processing
- Mode-dependent adaptive multi-frequency waveforms
- Robust operation in complex clutter and Electronic Counter-Measure environments
- Low-latency weapons designation interface
- Extensive Built-In Test facilities with integrated diagnostics
- Local Control and Display Subsystem (CDS)
- Integrated IFF, ADSB and AIS system

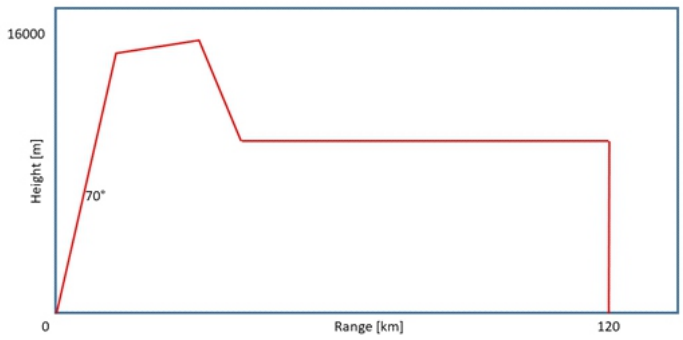
REUTECH
RADAR SYSTEMS

innovating for a better tomorrow

PERFORMANCE SPECIFICATIONS

- Radar Frequency: C-band (NATO G-band)
- Radar Detection Range
  - Small Fighter : > 120 km
- Instrumented Range per Mode:
  - Surveillance: 350 km
  - Self Defence & Weapon Control: 100 km
- Rotation Rates per Mode:
  - Surveillance: 8 rpm
  - Self Defence & Weapon Control: 30 rpm
- Accuracies:
  - Azimuth: < 0.2° rms
  - Range: < 12 m rms
  - Elevation: < 0.3° rms
- Coverage:
  - Elevation 70° mode dependent
- Temperatures (Operational):
  - -30°C to +50°C
- Wind (Operational):
  - 100 knots

Cover diagramme: Small Fighter

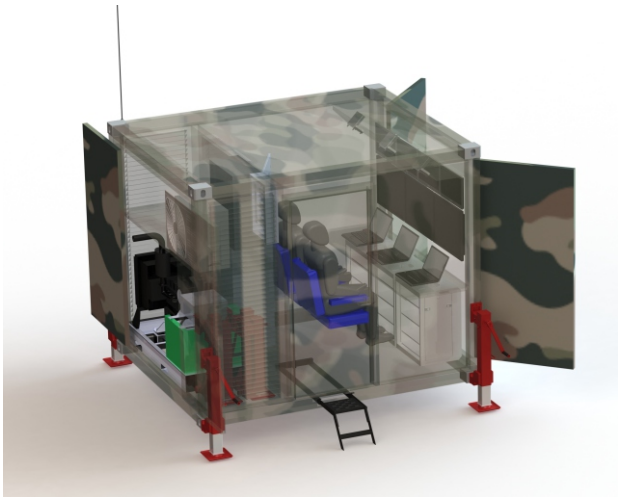


SUBSYSTEM FEATURES

- Antenna
  - Active Phased Array
  - Aperture Dimensions: 2400 x 1200 mm IFF antenna inclusive
- Transmitter
  - Air cooled solid state distributed transmitter
- Receiver
  - Distributed Multi-Channel
- Signal/Data Processor
  - Mode Adaptive Doppler filtering
  - Temporal, Range and Range-Doppler Adaptive CFARs
  - Multiple-Hypothesis track
  - Dual surface and air target trackers
  - Fast and slow target tracking
- Integral Generator



Mission Control Stations



Crew Module

REUTECH
RADAR SYSTEMS

REUTECH RADAR SYSTEMS, A DIVISION OF REUTECH (PTY) LTD

PO Box 686
Stellenbosch
7599
South Africa

35 Elektron Avenue, Technopark
Stellenbosch
7600
South Africa

+27 21 880 1150
radarsystems@reutech.co.za
www.reutechradar.com

Reutech reserves the right to amend the characteristics of its products at any time 09/2024