



INSTALLING  
RELIABILITY

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# 1.5 M MULTI-BAND FLYAWAY TERMINAL

## MFT 1500 MANUAL KU-BAND

### ROBUST, COMPACT, MIL QUALIFIED

This easily deployable multi-band modular FlyAway satellite terminal MFT 1500 supports your missions and is the terminal of choice!

The MFT 1500 terminal distinguishes itself through its operational wind resiliency and military grade design: it can withstand and operate under very high wind speeds and during severe storms comparable to deployable ground station requirements, nevertheless it is optimized for portability and product longevity.

The MFT 1500 Ku-Band is the non-motorized terminal platform and is designed for most demanding environmental requirements.

Carbon is used wherever possible to reduce weight, enhance durability, and provide the extreme stiffness required for optional Ka-Band upgrade in high wind conditions. Both the unique 180° azimuth range and integrated feed-booms for various bands expedite setup and use. All fasteners, caps, and protection use captive hardware.

With its rapid band switching capability with optional feeds for X- and Ka-band RF transmissions and integrated SKYWAN 5G modem, it provides utmost versatility and flexibility and can meet almost all network requirements.

### KEY FEATURES

- Unique robust design for sustainable long-term use
- Easy handling and transportation
- Integrated Ku-band Feed/Boom/BUC/LNB
- Extremely reliable and ready for immediate action
- Integrated SKYWAN technology
- Manual, field upgradable to motorized version

## SPECIFICATIONS

### RF/ELECTRICAL KU-BAND

Feed type/Polarisation	2 Port Feed linear, Polarization Horizontal/Vertical, Tx/Rx switchable
Antenna Frequency Range	Tx: 13.75 – 14.50 GHz Rx: 10.95 – 12.75 GHz
Antenna Gain	Tx: 45,0 dBi Midband Rx: 43,4 dBi Midband
Transmit Power	Standard: 50W, SSPA up to 150W class (25kg)
EIRP rated	61,5 dBW
G/T@20° Elevation	22,4 dB/K
Antenna Noise Temperature (20° elevation)	55°K
Max. Transmit Power	250 W
Cross-Polarization Isolation	35 dB
Feed Port Isolation	>60 dB
Modem Interface	950 – 2150 MHz (N-Type)
Input Power	110 - 240 VAC, 50 - 60 Hz, single phase
Power Consumption	800W (incl. SKYWAN 5G modem, LNB, 50W BUC)

### MECHANICAL

Reflector	1.5m carbon, 4-segment
Axis Travel	Azimuth >180° Elevation 5° - 90° Polarization +/- 90° All adjustable while transmitting
Terrain Slope	Up to 20°

### ENVIRONMENTAL

Standards	STANAG 4370 AECTP 300 (derived from STANAG 2895, MIL Std 810, Def Stan 00-035)
Operational Wind Speed	up to 100 km/h
Survival Wind Speed	105 km/h any position, 112 km/h survival position
Operational Temperature	-46 °C to +49 °C incl. 1120W/m <sup>2</sup> solar radiation / +55 °C without solar radiation
Storage Temperature	-46 °C to +71 °C
Rain	14mm/min over 5min, 1,7mm/min over 120 min
Icing	6 mm
Humidity	up to 100 % condensing, Heat Climate Class B3
Sand and Dust	Blowing dust 6 g/m <sup>3</sup> @ 5 m/s Blowing sand 1 g/m <sup>3</sup> @ 18 m/s incl. gusts 30 m/s
Salt fog	Storage and Operational 5% Sodium Chloride
Height	Operational: 3.000m
Standards	Storage and Transport: 12.000m – Wheeled Vehicle Improved Road and Off Road – Propeller Aircraft (C130) – Jet Aircraft Cargo Take off, Cruise – Helicopter Cargo
Transport Vibrations	– Railroad Cargo – Transportation shock – Material Stacking – Transport handling/ Transit Drop



## ENVIRONMENTAL

Standards	STANAG 4370 AECTP500, severity class "Land":
	<ul style="list-style-type: none"> <li>- NCE02, Conducted Emissions, Power Leads, 10 kHz to 10 MHz (MIL Std 461)</li> <li>- NCE04 Conducted Emissions Exported Transients on Primary Power Lines (Def Stan 59-411)</li> <li>- NCE05 Conducted Emissions, Power, Signal and Control Leads, 30 Hz to 150 MHz (Def Stan 59-411)</li> <li>- NCS01 Conducted Susceptibility, Power Leads, 30 Hz to 150 kHz (MIL Std 461)</li> <li>- NCS02 Conducted Susceptibility, Control and Signal Leads, 20 Hz to 50 kHz (Def Stan 59-411)</li> <li>- NCS03 Conducted Susceptibility, Antenna Port, Intermodulation 15 kHz to 10 GHz (MIL Std 461)</li> <li>- NCS04 Conducted Susceptibility, Antenna Port, Rejection of Undesired Signals, 30 Hz to 20 GHz (MIL Std 461)</li> <li>- NCS05 Conducted Susceptibility, Antenna Port, Cross Modulation 30 Hz to 20 GHz (MIL Std 461)</li> <li>- NCS07 Conducted Susceptibility, Bulk Current Injection 10 kHz to 200 MHz (MIL Std 461)</li> <li>- NCS08 Conducted Susceptibility, Bulk Current Injection Impulse Excitation (MIL Std 461)</li> <li>- NCS09 Conducted Susceptibility, Damped Sinusoidal Transients, Cables and Power Leads, 10 kHz to 100 MHz (MIL Std 461)</li> <li>- NCS12 Electrostatic Discharge (Def Stan 59-411)</li> <li>- NRE01 Radiated Emissions, Magnetic Field, 30 Hz to 100 kHz (MIL Std 461)</li> <li>- NRE02 Radiated Emissions, Electric Field, 10 kHz to 18 GHz (MIL Std 461)</li> <li>- NRE03 Radiated Emissions, Antenna Spurious and Harmonic Outputs, 10 kHz to 40 GHz (MIL Std 461)</li> <li>- NRS01 Radiated Susceptibility, Magnetic Field, 30 Hz to 100 kHz (MIL Std 461)</li> <li>- NRS02 Radiated Susceptibility, Electric Field, 2 MHz to 40 GHz (MIL Std 461)</li> <li>- NRS03 Radiated Susceptibility, Transient Electromagnetic Field (MIL Std 461)</li> <li>- DIN EN 61000-3-2</li> <li>- DIN EN 61000-3-3</li> <li>- DIN EN 61000-4-2:2009</li> <li>- DIN EN 61000-4-4:2013-04</li> <li>- EN 61000-6-3:2007 +A1:2011</li> </ul>
- EMC	

## QUALIFICATION

Tested and Qualified	CE 2006/42/EC
Satellite standards	Eutelsat Type Approval ready

## OPTIONS

Motorization Upgrade Kit	Field upgradeable
Alternative Feeds	Additional X, Ku- or Ka-band feeds for field replacement (multi-band usage)

ND SATCOM reserves the right to change specifications without notice.



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