



## Ku-Band ManPackable Antenna



TECOM has developed the Ku-Band ManPackable (Ku ManPac) antenna system to support range extension and bi-directional capabilities for the One System Remote Video Terminal (OSRVT).

The Ku ManPac antenna is a low Size, Weight and Power (SWaP) configuration specifically designed for dismounted soldiers and other mobile users.

The system pictured supports bi-directional Ku-Band data links between the Ground Data Terminal Antenna user and TCDL-configured UAV platforms.

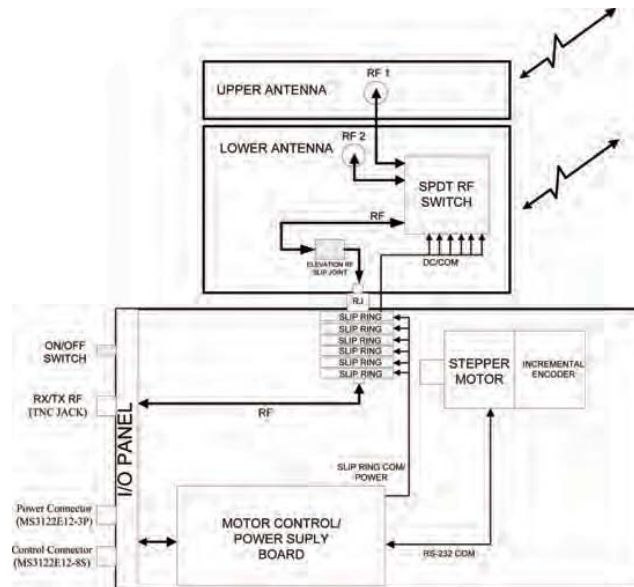
The Ku ManPac can locate and track UAVs using GPS-derived pointing commands.

DATA LINK

The Ku ManPac design can be scaled to provide optimum performance based on data-link, range and SWaP requirements.

The system is available in both bi-directional and receive-only configurations.

The average power consumption of the Ku ManPac Antenna positioner and control system is less than 5 watts.



*Innovative Antenna Solutions*

## Antenna Specifications

*Antenna Gain at Antenna Panel Outputs	21.2 dBi (min) at antenna port Peak gain @ 1° above horizon
VSWR	2.0:1 (max)
Frequency Range	14.4-15.35 GHz
Polarization	RHCP
Power	18-36 VDC
Power Consumption	<5 watts max
Size (in stow position)	4.5" h x 6.8" w x 18" l
User Interface	RS-485 (MDAS interface)
Weight	<13 lbs.
Power Connector	MS3122E12-3P
Control	MS3122E12-8S
RF Connector	TNC jack
Mechanical Interface	Self supporting (i.e., integrated support stand with leveling jacks)
Azimuth Motion	Continuous 360°
AZ Slew Rate	30°/sec
Operating Temperature Range	0°C to +60°C
Non-Operating Temperature Range	-40°C to +85°C
Cooling	Self cooling

\*Minimum gain values vs. elevation angles are specified in the table below. These values are based on the wide band panel for elevation angles greater than 10° and the narrow band panel for elevation angles of 10° and lower.

### Gain at RX/TX RF (TNC jack)

Elevation Angle	Gain (dBic)	Elevation Angle	Gain (dBic)
90	6.0	10	10.0
85	7.0	9	12.0
80	8.0	8	13.5
75	9.0	7	15.0
70	9.5	6	16.0
65	10.3	5	17.0
60	11.0	4	17.7
55	11.8	3	18.2
50	12.0	2	18.8
45	12.8	1	19.0
40	13.0	0	19.0
35	13.3		
30	13.3		
25	13.3		
20	13.0		
15	12.5		

\* Specifications subject to change