

| Transportability

| Flexibility

| Performance



Ranger 1500

Integrated Satcom Terminals

Transportability / Flexibility / Performance

Ranger 1500 terminals offer the most versatile, easily deployable and operator-friendly access available for star, mesh or hybrid satellite networks. Readily configurable for C, X, Ku or Ka-Band space segment, Ranger terminals are fully compatible with SkyWAN® networks, as well as conventional SCPC and IP-based networks.

An innovative, modular antenna design incorporating a carbon-fiber reflector which is optimized for both stiffness and portability ensures ease of use and superior performance in harsh environments.



Optional motorization and tracking is available via modular “add-on” components to meet DSCS and/or inclined orbit applications.

Operational frequency band is defined by the integrated feed & electronics package. Common IFL interfaces provide an easy means for changing bands by simply exchanging feed booms.

The integrated feed assembly transports in a separate case, making transport and storage for alternate band configurations clean and straight-forward.

KEY FEATURES

- 1.5m Carbon Fiber Offset antenna with superior performance to 31 GHz
- Readily configurable for C, X, Ku, or Ka-Band operation; field-reconfigurable in seconds
- X-Band configurations are XTAR, DCSC & WGS compatible (industry leading 0.5dB AR)
- Integrated Feed/Boom/BUC/LNB package for each frequency band
- Modular motorization & tracking option is easily field-upgradeable
- L-Band Inter-Facility Link & interfaces compatible with all common modem platforms
- Satellite network & modem platform agnostic, including SkyWAN®, IP and SCPC



Simple substitution of two key pedestal elements motorizes the AZ and EL axes. Automatic tracking is provided by an ACU with

Parameter	C-Band	X-Band	Ku-Band	Ka-Band
Standard Feed Configuration	2-Port CP 2-Port LP	2-Port CP 0.5 dB AR	2-Port LP copol or xpol	2-Port CP
RX Frequency Range (GHz)	3.625 – 4.2	7.25 – 7.75	10.95 – 12.75	20.2 – 21.2
RX Gain (Midband) (dBi)	33.3	39.0	43.4	47.8
G/T (Midband; EL = 20°) (dB/K)	13.7	18.0	22.0	22.7
TX Frequency Range (GHz)	5.85 – 6.425	7.9 – 8.4	13.75 – 14.5	30 – 31
TX Gain (Midband) (dBi)	37.1	39.6	45.0	51.1
TX Amplifier/BUC Power (Psat) (W)	200	100	100	25
EIRP (Midband @ P1dB) (dBW)	59.1	58.6	63.7	61.1

Case Description	Size (Statute)				Size (Metric)			
	L/in	W/in	H/in	V/ft3	L/cm	W/cm	H/cm	V/m3
Reflector 4pc	42	13	35	11.1	107	34	89	0.32
Feed Assemb.	52	28	25	21.1	133	72	64	0.60
Pedestal 1	45	26	17	11.6	115	67	44	0.33
Electronics	36	23	17	8.2	92	59	44	0.24
Motorization	36	23	17	8.2	92	59	44	0.24
Total				61				1.8

* G/Ts and EIRP values are based upon ‘typical’ amplifier selections. Any terminal can be configured with alternate LNB and/or BUC selections to tailor performance for given applications.

Antenna System	1.5m Single-offset; Carbon Fiber; segmented, 4-Piece with precision latching
Pedestal	High-stiffness tri-pod style; aluminium; quick-assembly with captive hardware
Travel Range	AZ: +/- 180 deg EL: 0 – 90 deg POL: +/- 90 deg (linear feeds)
Wind (anchored)	Operational: 30mph gusting to 45mph; Survival @ stow: 75mph
Operating Temp Range	Outdoor Equipment: -40C to +60C Indoor Equipment: -10C to +40C

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