

| Transportability

| Flexibility

| Performance



## Ranger 1800

### Integrated Satcom Terminals

#### Transportability / Flexibility / Performance

Ranger 1800 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. SMC reflector variants are available to match operational needs with value and portability.



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

- 1.8m 7-Piece Carbon Fiber or 4-Piece precision-cut SMC reflector
- 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/autopointing 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)	35.4	41.3	45	49.6
G/T (Midband; EL = 20 ) (dB/K)	15.7	20.5	23.9	24.6
TX Frequency Range (GHz)	5.85 – 6.425	7.9 – 8.4	13.75 – 14.5	30 – 31
TX Gain (Midband) (dBi)	39.7	42	47.1	53
TX Amplifier/BUC Power (P <sub>sat</sub> ) (W)	200	100	100	25
EIRP (Midband @ P1dB) (dBW)	61.7	61.0	65.8	63

Case Description	Size (Statute)				Size (Metric)			
	L/in	W/in	H/in	V/ft <sup>3</sup>	L/cm	W/cm	H/cm	V/m <sup>3</sup>
Reflector 1	39.0	41.0	13.5	12.5	100	105	35	0.36
Reflector 2	39.0	41.0	135.	12.5	100	105	35	0.36
Pedestal 1	34.0	29.0	17.8	10.2	87	74	46	0.29
Pedestal 2	36.0	23.0	17.0	8.2	92	59	44	0.24
Feed Assmb.	52.0	28.0	25.0	21.1	133	72	64	0.60
Electronics	36.0	23.0	17.0	8.2	92	59	44	0.24
Motorization	36.0	23.0	17.0	8.2	92	59	44	0.24
Total				81				2.4

\* 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	1.8m Single-offset; segmented, CFRP 7-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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