

The Scorpion Manpack Terminal

MP Series 60cm/80cm/1m



- 60cm, 80cm, 1m reflector options
- X, Ku and Ka-Band
- Lightweight, weatherproof (complete system)
- Up to 55W terminal power
- Integrated IP modem
- Out-of-band management
- No-tools assembly
- Single soft-case unit (under 19kg)
- Pointing assist with GPS, electronic compass and inclinometer
- Fine adjustments on all axis

The Scorpion is a fully featured IP Manpack, designed to provide the ultimate in reliable, secure and mobile communications

The Scorpion can be supplied in X, Ku or Ka-Band with reflector sizes from 60cm to 1.0m. All the frequency and size options can still be packed away in a single carry case with all the equipment required to uplink including, the pointing aid, cables and power supply.

The latest in manufacturing methods and material selection has allowed the Scorpion to provide the ultimate in man-pack terminals. The elevation head is completely captive and houses all the RF components which have been specified to operate in extreme weather conditions. The entire unit is IP65 rated, all the RF connections and control are completely sealed so no dangling wires or connections to be made.

The base unit contains the tripod, which has cantilevered gas strut legs that raise the base of the unit 120mm off the ground, mitigating the ground effect heating and allows the Scorpion to be used in wet and muddy conditions.

The Man-Pack can be powered from either AC mains (110-240 VAC), or direct from a DC source. We also have a battery pack option for our lower power terminals.

The Scorpion has the approval of several major commercial and military satellite operators including SES, GOVSAT and AIRBUS for use on SKYNET6.



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Technical Specifications

Antenna type	60cm, 80cm and 1.0m
Azimuth range (Fine)	+/- 25°
Elevation range	0° to 90°
Operating temp	-32°C to +60°C (modem dependent)
Operating humidity	95% RH
Operational wind speed	60km/hour (with ballast)
Storage Temperature	-40°C to +60°C
IP Interface	Weatherproof RJ45 connector
RX Monitor	SMA (female)
DC in (24v)	Weatherproof (battery option)
IP Modem	iDirect, Newtec, Teledyne, Q-Flex, UHP, Comtech
Terminal Weight	Under 20kg with soft cases (configuration dependent)
Packing options	Backpack, hard case

Case Contents

1. Main terminal body with integrated IP modem, elevationhead, tripod, GPS
2. Outer reflector petals
3. PSU
4. MPAD
5. Feed



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Technical Information

Antenna size	60cm	80cm	1m
Number of petals	6	5	7
F/D	0.25	0.25	0.25

X Band

TX Frequency	7.9-8.4GHz	7.9-8.4GHz	7.9-8.4GHz
RX Frequency	7.25-7.75GHz	7.25-7.75GHz	7.25-7.75GHz
Gain TX	32.7 dBi	35.0 dBi	37.0 dBi
Gain RX	32.1 dBi	34.6 dBi	36.4 dBi
Pol 2 port Circular			
Axial Ratio	<0.75 dB	<0.75 dB	<0.75 dB
Isolation	>23 dB	>23 dB	>23 dB
TX/RX Port VSWR	<1.25:1	<1.25:1	<1.25:1
BUC power	40W	40W	40W

KU Band

TX Frequency	13.75-14.5GHz	13.75-14.5GHz	13.75-14.5GHz
RX Frequency	10.7-12.75GHz	10.7-12.75GHz	10.7-12.75GHz
Gain TX	37.2 dBi	39.6 dBi	41.4 dBi
Gain RX	35.7 dBi	38.3 dBi	40.1 dBi
Pol 2 port linear			
Port to port isolation	>35 dB	>35 dB	>35 dB
Cross pol	30 dB min	30 dB min	30 dB min
TX/RX Port VSWR	<1.5:1	<1.5:1	<1.5:1
BUC Power	25W(55W)	25W(55W)	25W(55W)

Ka Band

TX Frequency	29.0-31.0GHz	29.0-31.0GHz	29.0-31.0GHz
RX Frequency	19.2-21.2GHz	19.2-21.2GHz	19.2-21.2GHz
Gain TX	43.2 dBi	45.7 dBi	47.6 dBi
Gain RX	40.2 dBi	42.6 dBi	44.5 dBi
Pol 2 port Circular			
Axial Ratio	<0.75 dB	<0.75 dB	<0.75 dB
Isolation	>55 dB	>55 dB	>55 dB
TX/RX Port VSWR	Tx<1.25:1 RX<1.5:1	Tx<1.25:1 RX<1.5:1	Tx<1.25:1 RX<1.5:1
BUC Power	12W	12W	12W