

### The Holkirk Scarab a multi-Band and multi-Orbit satellite terminal, the ultimate solution for versatile and dynamic satellite communication.



**The Holkirk Scarab is a multi-Band and multi-Orbit satellite terminal, the ultimate solution for versatile and dynamic satellite communication needs.**

#### Seamless Frequency Band Transition

The Scarab terminal features the revolutionary Holkirk Quick Change Cartridge System, which allows users to switch between frequency bands (X-band, Ku-band, and Ka-band) with unprecedented ease. This modular design means cartridges can be swapped out in moments without tools or technical expertise, ensuring your communication systems are adaptable to any mission requirement.

#### Tracking Non-GEO Satellites

The Scarab terminal is engineered to track non-geostationary (non-GEO) satellite orbits, such as inclined orbit, HEO and MEO (Medium Earth Orbit), which are becoming increasingly important for high-throughput and low-latency communications. The terminal's advanced tracking capabilities ensure a stable and reliable connection even with satellites that move rapidly across the sky.

#### User-Friendly Operation

Designed with the end-user in mind, the Scarab terminal's intuitive interface allows for quick setup and operation. Its portability and ease of use make it an ideal choice for field deployments, emergency response teams, and mobile command centres.

#### Control

The Scarab can be equipped with the Holkirk AIM MOBILE for seamless operation in Tri-Band operation with auto-sensing frequency band, 30 satellite database, BUC/TWT integrated M&C and graphical user interface.

#### Integration

The Scarab can form the heart of a secure communication network. With off-air monitoring, RF over fibre links and ruggedised electronics for LEO GEO MEO HEO satellite applications.

### Applications

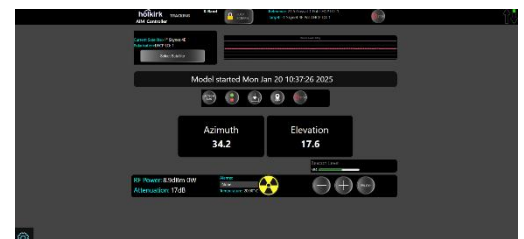
Tri-Band secure communications

Non-GEO orbit tracking

Inclined orbit tracking

TLE Input TRACKING

- X, Ku and Ka-Band
- GEO / MEO / HEO capable
- 60 / 80cm / 1.0m 1.3M reflector
- Lightweight, high power
- Weatherproof complete system
- Up to 60W terminal power
- No-tools assembly
- Auto-Pointing with GPS
- GPS over-ride
- Fine adjustments on all axis
- Designed to meet MIL-STD 810g



M&C control includes LNB, BUC and ACU



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### Terminal Specifications

|                              |   |               |  |
|------------------------------|---|---------------|--|
| Azimuth range                | +/-60° (+/-270 with integrated modem)           |               |  |
| Elevation range              | 0° to 90°                                       |               |  |
| Tracking speed               |   |               |  |
| Azimuth                      | fast  | 6° per second |  |
|                              | Slow  | 1° per second |  |
| Elevation                    | fast  | 6° per second |  |
|                              | Slow  | 1° per second |  |
| Auto-pointing                | With GPS and GPS over-ride, TRACKING, TLE Input |               |  |
| Power Input                  | 90-250VAC and 24VDC                             |               |  |
| Power consumption            | Moving (with BUC/LNB)                           | 60W           |  |
|                              | Idle (with BUC/LNB)                             | 23W           |  |
| Terminal weight<br>(uncased) | 28kg (system dependant)                         |               |  |
| Case Options                 | Single case, Dual case, Softpack                |               |  |



### Technical Information

| Antenna size   | 60cm            | 80cm          | 1m            | 1.3M               |
|----------------|-----------------|---------------|---------------|--------------------|
| <b>X Band</b>  |                 |               |               |                    |
| TX Frequency   | 7.9-8.4GHz      | 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  | 7.25-7.75GHz       |
| Gain TX        | 32.7 dBi        | 35.0 dBi      | 37.0 dBi      | 39.2 dBi           |
| Gain RX        | 32.1 dBi        | 34.6 dBi      | 36.4 dBi      | 38.6 dBi           |
| G/T            | 10.2 dB         | 12.7 dB       | 14.6 dB       | 16.8 dB            |
| Pol            | 2 port Circular |               |               |                    |
| BUC power      | 40W             | 40W           | 40W           | 40W (EIRP 48.9dBw) |
| <b>KU Band</b> |                 |               |               |                    |
| TX Frequency   | 13.75-14.5GHz   | 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 | 10.7-12.75GHz      |
| Gain TX        | 37.2 dBi        | 39.6 dBi      | 41.4 dBi      | 43.3 dBi           |
| Gain RX        | 35.7 dBi        | 38.3 dBi      | 40.1 dBi      | 42.0 dBi           |
| G/T            | 14.33 dBk       | 16.84 dBk     | 18.77 dBk     | 21.05 dBk          |
| Pol            | 2 port linear   |               |               |                    |
| BUC Power      | 55W             | 55W           | 55W           | 55W                |
| <b>Ka Band</b> |                 |               |               |                    |
| TX Frequency   | 27.5-31.0GHz    | 27.5-31.0GHz  | 27.5-31.0GHz  | 27.5-31.0GHz       |
| RX Frequency   | 17.7-21.2GHz    | 17.7-21.2GHz  | 17.7-21.2GHz  | 17.7-21.2GHz       |
| Gain TX        | 43.2 dBi        | 45.7 dBi      | 47.6 dBi      | 49.5 dBi           |
| Gain RX        | 40.2 dBi        | 42.6 dBi      | 44.5 dBi      | 47.1 dBi           |
| G/T            | 15.88 dBk       | 18.38 dBk     | 20.78 dBk     | 22.93 dBk          |
| Pol            | 2 port Circular |               |               |                    |
| BUC Power      | 20W/60W         | 20W/60W       | 20W/60W       | 20W/60W            |