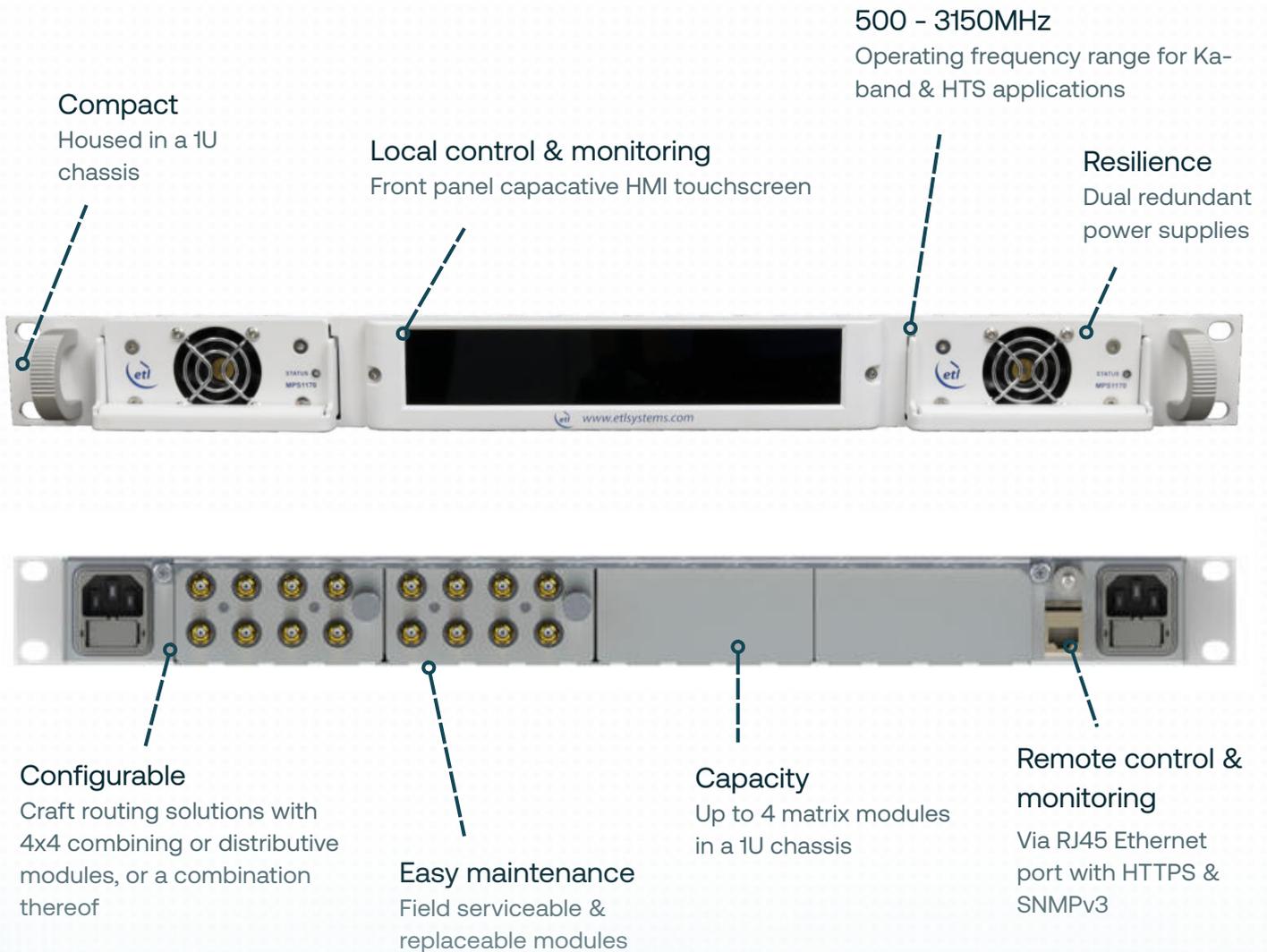


# Hawk Series 4x4 Extended L-band Matrix

## for Uplink applications

The 1U Genus chassis has capacity for up to 4 off 4x4 Hawk matrix modules – which can be combining (fan-in) or distributive (fan-out) or FIFO (fan-in, fan-out) or FIFO (fan-in, fan-out) – for uplink and downlink applications. The Genus chassis can be fitted with any combination of modules depending on application, but is ideally suited for smaller LEO gateways with small number of modems, where modem redundancy is required, smaller number of modems and antennas and remotely accessed teleports. Other module types from the Genus range such as Frequency Converters or RF over Fibre can also be fitted into the chassis.



| RF Parameters                            |   |   |
|--|---|---|
| Routing                                  | Combining   |   |
| Frequency Range                          | 500 to 3150MHz (Extended L-band)  |   |
| Capacity                                 | Up to 4 matrix modules in 1U parent chassis – each 4 x Input and 4 x Output.  |   |
| Switching Time                           | < 50ms (From receipt of a command to implementation of path change)   |   |
| Power Consumption                        | <5W   |   |
| RF Connectors                            | 50 Ω SMA  |   |
| Gain, Typ., mean across band             | 0±1 dB  |   |
| Gain Flatness                            | 850-2450MHz: ±1.0 dB    500-3150MHz: ±2.5 dB  |   |
| Any 36MHz                                | 850-2450MHz: ±0.15 dB    500-3150 MHz: ±0.25 dB   |   |
| Input Return Loss                        | Typ. 14 dB    Min. 10 dB  |   |
| Output Return Loss                       | Typ. 14 dB    Min. 10 dB  |   |
| Isolation<br>Min. between any<br>2 ports | Input-Input   | 55 dB   |
|  | Output-Output   | 55 dB   |
|  | Input-Output  | 50 dB   |
| Noise Figure                             | 850 - 2450MHz   | Typ. 22 dB, with one input routed to one output |
|  | 500 - 3150MHz   | Typ. 25 dB, with one input routed to one output |
| 1dB GCP<br>Output power,<br>Typ.         | 850 - 2450MHz   | +15 dBm   |
|  | 500 - 3150MHz   | +12 dBm   |
| OIP3, Typ.                               | 850 - 2450MHz   | +30 dBm   |
|  | 500 - 3150MHz   | +25 dBm   |
| OIP2, Typ.                               |   | +40 dBm   |
| Group Delay                              |   | <1.0 ns   |
| PSU Redundancy                           |   | Dual redundant and alarmed. Diode OR.           |
| Matrix Module                            |   | Combining: Field replaceable                    |
| System Control                           |   |   |
| Remote Control & Monitoring              | Ethernet via RJ45 with HTTPS & SNMPv3, 10BaseT/100 Base Tx. ETL TCP/IP, SNMP & Web browser interface. Via parent chassis. |   |
| Physical & Environmental                 |   |   |
| Dimensions                               | 4 x Genus 1U slots  |   |
| Weight/Colour                            | <0.5 kg / RAL9003—White (Semi-matte)  |   |
| Temperature                              | Operating: 0 to 45°C / Storage: -20°C to +75°C  |   |
| Location                                 | Indoor use only   |   |
| Humidity                                 | 20 to 90% non-condensing  |   |
| Altitude                                 | 2,000 feet AMSL (Operational) 8,000 feet AMSL (Storage) Above Mean Sea Level  |   |
| Spec. Version                            | 1.2   |   |

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.

Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.