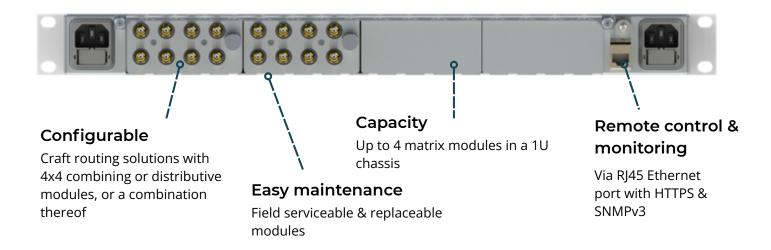


Hawk Series 4x4 Extended L-band Matrix

for Downlink 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.







Routing	RF Parameters			
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)	Routing		Distributive	
Switching Time	Frequency Range		500 to 3150MHz (Extended L-band)	
Power Consumption SW	Capacity		Up to 4 matrix modules in 1U parent chassis – each 4 x Input and 4 x Output.	
RF Connectors	Switching Time		< 50ms (From receipt of a command to implementation of path change)	
Sain (dB) Typ., mean across band Sain Flatness (dB) Sain Flatness	Power Consumption		<5W	
Soil	RF Connectors		50 Ω SMA	
Sociation (Barriers)	Gain (dB) Typ., mean across band		0±1	
Any 36MHz	C : El (ID)	850 - 2450MHz	±0.75	
Any 36MHz	Gain Flatness (dB)	500 - 3150MHz	±2.5	
Sol - 3150MHz	A 26N411	850 - 2450MHz	±0.15	
Min. 10	Any 36MHz	500 - 3150MHz	±0.25	
Min. 10 10 10 10 10 10 10 1		Тур.	14	
Loss (dB) Min. 10 Isolation (dB) Min. 10 Isolation (dB) Min. 10 Input-Output 55 dB Output-Output 55 dB Noise Figure (dB) 850 - 2450MHz 7yp. 7 dB, with one input routed to one output 500 - 3150MHz 7yp. 9 dB, with one input routed to one output 850 - 2450MHz 7yp. 9 dB, with one input routed to one output 950 - 3150MHz 7yp. 9 dB, with one input routed to one output 950 - 3150MHz 950 - 3150		Min.	10	
Loss (dB) Min. 10 solation (dB) Min. between any 2 ports Dutput-Output 55 dB Noise Figure (dB) 55 0 dB 850 - 2450MHz 500 - 3150MHz 600 - 3150		Тур.	14	
Noise Figure (dB) Nois		Min.	10	
between any 2 ports Doubs	between any 2	Input-Input	55 dB	
Noise Figure (dB) Noise Figure (dB) Noise Figure (dB) So - 2450MHz Typ. 7 dB, with one input routed to one output Typ. 9 dB, with one input routed to one output So - 3150MHz Typ. 9 dB, with one input routed to one output So - 3150MHz So - 2450MHz Typ. 9 dB, with one input routed to one output Ho dBm Output power, Typ. So - 3150MHz So - 2450MHz OIP3 (dBm), Typ. So - 3150MHz OIP2 (dBm), Typ. Group Delay FSU Redundancy Dual redundant and alarmed. Diode OR. Distributive: Field replaceable System Control Ethernet via RJ45 with HTTPS & SNMPv3, 10BaseT/100 Base Tx. ETL TCP/IP, SNMP & Web browser interface. Via parent chassis. Physical & Environmental Dimensions Weight/Colour A x Genus 1U slots Weight/Colour Governmental Operating: 0 to 45°C / Storage: -20°C to +75°C Location Indoor use only Humidity A torage AMSL (Operational) 8,000 feet AMSL (Storage) Above Mean Sea Level		Output-Output	55 dB	
Noise Figure (dB) 500 - 3150MHz 500 - 3150MHz Typ. 9 dB, with one input routed to one output 1dB GCP (dBm) Output power, Typ. 500 - 3150MHz 600 - 3150		Input-Output	50 dB	
Typ. 9 dB, with one input routed to one output 1dB GCP (dBm) Output power, Typ. OIP3 (dBm), Typ. OIP3 (dBm), Typ. 850 - 2450MHz 500 - 3150MHz 115 dBm 120 dBm 67 output be been been been been been been been	Noise Figure (dB)	850 - 2450MHz	Typ. 7 dB, with one input routed to one output	
Output power, Typ. OIP3 (dBm), Typ. OIP3 (dBm), Typ. OIP2 (dBm), Typ. OIP2 (dBm), Typ. Group Delay PSU Redundancy Matrix Module System Control Ethernet via RJ45 with HTTPS & SNMPV3, 10BaseT/100 Base Tx. ETL TCP/IP, SNMP & Web browser interface. Via parent chassis. Physical & Environmental Dimensions Weight/Colour Temperature Operating: 0 to 45°C / Storage: -20°C to +75°C Location Humidity Altitude South Altitude -3 dBm -3 dBm -1.0 dBm -1.0 dBm -1.0 dBm -1.0 ns Poul redundant and alarmed. Diode OR. Distributive: Field replaceable System Control Ethernet via RJ45 with HTTPS & SNMPV3, 10BaseT/100 Base Tx. ETL TCP/IP, SNMP & Web browser interface. Via parent chassis. Physical & Environmental Operating: 0 to 45°C / Storage: -20°C to +75°C Location Indoor use only Humidity 20 to 90% non-condensing Altitude		500 - 3150MHz	Typ. 9 dB, with one input routed to one output	
Typ. \$00 - 3150MHz -3 dBm OIP3 (dBm), Typ. 850 - 2450MHz +15 dBm OIP2 (dBm), Typ. 500 - 3150MHz +12 dBm OIP2 (dBm), Typ. +22 dBm Group Delay <1.0 ns PSU Redundancy Dual redundant and alarmed. Diode OR. Matrix Module 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	Output power,	850 - 2450MHz	+0 dBm	
OIP3 (dBm), Typ. OIP2 (dBm), Typ. Group Delay FSU Redundancy Matrix Module System Control 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 Temperature Operating: 0 to 45°C / Storage: -20°C to +75°C Location Humidity Altitude 2,000 feet AMSL (Operational) 8,000 feet AMSL (Storage) Above Mean Sea Level		500 - 3150MHz	-3 dBm	
S00 - 3150MHz	OIP3 (dBm), Typ.	850 - 2450MHz	+15 dBm	
Section Control Cont		500 - 3150MHz	+12 dBm	
PSU Redundancy Matrix Module Distributive: 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	OIP2 (dBm), Typ.		+22 dBm	
Matrix Module 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 Humidity 20 to 90% non-condensing Altitude 2,000 feet AMSL (Operational) 8,000 feet AMSL (Storage) Above Mean Sea Level	Group Delay		<1.0 ns	
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 Veight/Colour Concept of Very Storage: -20°C to +75°C Location Indoor use only Humidity Altitude 2,000 feet AMSL (Operational) 8,000 feet AMSL (Storage) Above Mean Sea Level	PSU Redundancy		Dual redundant and alarmed. Diode OR.	
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 Veight/Colour Co.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	Matrix Module		Distributive: Field replaceable	
browser interface. Via parent chassis. Physical & Environmental Dimensions 4 x Genus 1U slots Veight/Colour Co.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			System Control	
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	Remote Control & Monitoring			
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			Physical & Environmental	
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	Dimensions		4 x Genus 1U slots	
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	Weight/Colour		<0.5 kg / RAL9003—White (Semi-matte)	
Humidity 20 to 90% non-condensing Altitude 2,000 feet AMSL (Operational) 8,000 feet AMSL (Storage) Above Mean Sea Level	Temperature		Operating: 0 to 45°C / Storage: -20°C to +75°C	
Altitude 2,000 feet AMSL (Operational) 8,000 feet AMSL (Storage) Above Mean Sea Level	Location		Indoor use only	
	Humidity		20 to 90% non-condensing	
Spec. Version 1.2	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.