SCORPION High Capacity PTP and PTMP
9000 SERIES

SCORPION

SCORPION **Model Numbers: SA951, F951 & F971**

The best-in-class carrier grade wireless bridge

SCORPION High Capacity PTP and PTMP wireless solution is the most advanced at most competitive price in market.

Wavesight Limited 13 Dencora Way, Sundon Business Park, Luton LU3 3HP. United Kingdom. www.wavesight.com

Wavesight

SCORPION High Capacity PTP and PTMP 9000 SERIES

SCORPION SA951, F951 and F971 operating in 6.1 to 7.1GHz introduces superior dynamic net throughput of up to 2Gbps combined with ultra-low latency and best PPS delivery.

Designed for unmatched interference rejection, SCORPION's high capacity PTP and PTMP series unique Automatic Interference Sensibility (AIS) technology guarantees stable performance with constant latency and throughput.

SCORPION high capacity PTP and PTMP solution set a benchmark of unrivaled performance and reliability, making it the ultimate choice for future-proof wireless systems.

High Performance Radio

- Superior net throughput – up to 2Gbps
- Dynamic asymmetric capacity
- Best latency – 2-5 ms (PtP)
- Spectral efficiency (net) 12.5 b/s/Hz
- Long range – up to 50 Km (antenna dependent)
- Configurable channel bandwidth – 20/40/80/160MHz
- 256-bit AES encryption & MAC level authentication
- Dynamic Frequency Selection (DFS)

Extremely Low CAPEX & OPEX

- Most competitive price
- Flexible capacity, software upgradeable
- Rugged & Reliable IP67 design
- Compact & Simple to install and maintain
- <13W power consumption
- Multiple frequency bands in one radio
- State-of-the-art NMS

Unmatched Interference Rejection

- AIS (Automatic Interference Sensibility) technology makes SCORPION the most stable wireless solution in the market.
- Time Synchronization eliminates self-interference and allows frequency reuse.
- Higher capacity, longer range and diversity.
- The only solution with Hitless ACM - Adaptive Coding & Modulation.
- ACS – Automatic Channel Selection.

Advanced Networking

- WEB, SNMP and Telnet management
- QoS based on 802.1p, TOS & DSCP
- VLAN tagging/stripping & QinQ
- Uplink and downlink bandwidth control
- Over the air remote management

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Specifications

SCORPION

Radio

Radio Frequency	6100-7100MHz Country Dependent
Net Throughput	1Gbps “upgradeable up to 2Gbps with additional license
Channel Size	20/40/80/160 MHz
Waveform	Advanced OFDM dual polarization / Adaptive or Fixed Modulation Modulations – 12 levels - BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Output Power	Up to 28dBm (avg.), configurable TPC and ATPC
Handling Interference	AIS - Automatic Interference Sensibility ACM - Adaptive Coding & Modulation ACS - Automatic Channel Selection FEC - Forward Error Correction, k = 1/2, 2/3, 3/4, 5/6 Fastest ARQ – Automatic Retransmit reQuest
Encryption & Security	256-bit AES & MAC level authentication
DFS (ETSI)	Supported
Time Synchronization	Internal and external (GPS), unlimited number of synchronized radios

Antenna Configurations

Model F951	24dBi @ 6.x GHz - Integrated Antenna
Model SA951	Connectors for external antenna (2 x TNC Female Socket)
Model F971	16dBi @ 6.x GHz - 90 degrees Integrated Antenna

Networking and Management

Topology	Point-to-Point (PTP), Point-to-Multipoint (PTMP) - software configurable
Access Technology	Time Division Duplex (TDD) , Time Division Multiple Access (TDMA)
Asymmetric TDD	Dynamic and Automatic or Fixed
Data Latency	2 - 5ms (PtP)
Network Modes	Layer 2 Bridge, VLAN, 802.1ad QinQ, VLAN / broadcast filters
Authentication	Via username + password, RADIUS/TACACS authentication supported
QoS	8 priority queues based on 802.1q, 802.1p, TOS, DiffServ and DSCP
Protocols	IPv4, IPv6, UDP, TCP, ICMP, HTTP, HTTPS and TFTP
Management	Cloudstream NMS (path profiling tool), WEB, SNMPv1, SNMPv2, SNMPv3, Telnet., SSH. Built in throughput test and RF Analyzer
Performance Data	Real time & history - logs and counters of traffic and radio data

Physical and Environmental

Physical Interface	1x 10/100/1000/2500 Base-T (ODU)
Connector Type	1x RJ-45
Dimensions and Weight	19 x 19 x 4 cm, <1Kg (connectorized) 30 x 30 x 7 cm, <2.5 Kg (24dBi @ 6.x GHz - Integrated Antenna) 37 x 37 x 8 cm, <3.5 Kg (16dBi @ 6.x GHz - 90 degrees Integrated Antenna)
Power	Power over Ethernet (PoE) - 48 VDC
PoE Adapter AC-DC:	
• Power	48-55VDC POE - Input power 100-240VAC, 47-63Hz
• Dimensions	120 x 60 x 35mm
PoE Adapter DC-DC:	
• Power	48-55VDC POE - Input power 10-60VDC
• Dimensions	160 x 60 x 30mm
Power Consumption	<13W
IP Rating	IP67
Operating Temperature	-40°c to 60°c
Operating Humidity	95% non condensing

Specifications are subject to change periodically. Actual distance depends on multi-path/reflections/insertion-loss at the specific location.