



# Abicom International

*Innovative Solutions for the Wireless Industry*

## High Performance, Wireless Platform

Abicom International's Scorpion 450 (SC450) is an unparalleled wireless platform, offering a wealth of features that enable the creation of high performance flexible wireless installations. The SC450 has been optimised for applications including wireless bridges, last mile access and mixed hotspot/back-haul applications.

The SC450 combines an enterprise level, 3 stream, 802.11an based SoC (QCA9550) with gigabit Ethernet and SFP Fibre port

## Dual Radio Support

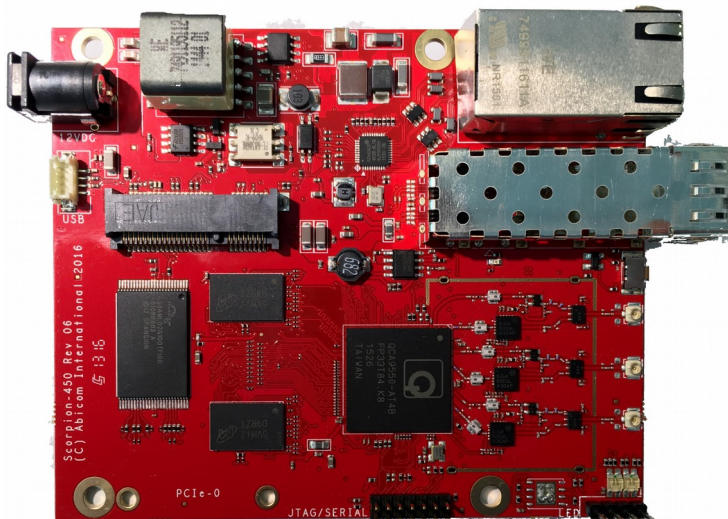
The SC450 supports 5GHz 802.11a/n operation through a highly integrated single chip solution enabling 3x3 Spatial Stream MIMO configurations.

Enhanced features include DFS support on all required bands, 5,10,20 & 40MHz channelisation, Low density Parity check (LDPC), maximal ratio combining (MRC) Space Time Block Coding (STBC), TX Beamforming (TxBF) and 8 Bit Spectral Analysis Resolution. Data rates of 216.7Mbps for 20MHz and 450Mbps for 40MHz can be achieved.

Additionally the SC450 includes a SFP Fibre module port a PCIe Expansion Port and USB for connection of additional peripherals or a second 2.4 GHz radio.

128 Bit AES Hardware Encryption provides an unparalleled level of security and supports WPA/WPA in both enterprise and PSK configurations.

The SC450 can support up to 512 concurrent connections when acting as a wireless access point.



# Scorpion 450

450Mbit Embedded Module

## Features

- Connects to any 5GHz 802.11 Client
- 450 Mbps Data Rate
- Extended Turning Range
- Hardware Encryption
- AES TKIP and WEP Support
- DFS & TPC Support
- WDS, AP and Client Modes for hotspot and bridging applications
- OpenWRT Support
- +32dBm output power
- Industrial temperature range -40 to +110°C

## Hardware Configuration

- Embedded Product Suitable for OEM's
- Full Duplex Gigabit Ethernet Port
- SFP Fibre Module Port
- PCIe Expansion Port
- USB 2.0 Port
- Integrated 32bit 700MHz MIPS CPU
- 256MB DDR2 Memory
- 16MB SPI Flash
- 256MB NAND Flash
- 12Vdc Power Supply
- Gigabit POE+ (802.3at)
- Multipurpose IO port with support for SPI and GPIO

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# Technical Specifications

Interface	
Ethernet Interface	1 Gigabit x RJ45 1 SFP Fibre module port
Antenna Ports	3 x 50 Ω U.FL Connectors
Power	802.3at, Power over Ethernet or 12Vdc Option
Hardware	
Processor	QCA9550 @ 720MHz
Flash Memory	16MB
SDRAM	256MB
Ethernet Controller	QCA8035
Functionality	
Single Multiprotocol MAC	Encryption WEP, WPA (2), AES/TKIP
Wireless Distribution System (WDS)	Radius Authentication
IEEE 802.1x Support	MAC Filtering
Link Test Feature	Hardware Data Compression
Standards Compliant Bursting	Draft 802.11e QoS Support
Dynamic Frequency Selection (DFS)	Draft 802.11h,i Support
Extended Tuning Range	LED Indicators
Dynamic Transmit Optimisation	Transmit Power Control (TPC)
Management	
TELNET Command Line Interface	Secure WEB Interface
FTP Firmware Upload	SNMP Support
Frequency	
Tuning Range	4.9GHz-6GHz

Physical				
Size	85mm X 100mm			
Weight	0.1 Kg			
Environmental				
Operating Temperature	-40°C to 110°C (Industrial)			
Storage Temperature	-65°C to 150°C			
Humidity	Max. 95% Relative Humidity, Non-Condensing			
Power Supply				
Parameter	Condition	Min	Typ	Max
Voltage Range	PoE Input	-38Vdc	-48Vdc	-56Vdc
	DC Input	7Vdc	12Vdc	20Vdc
Transmit Power (dBm)				
Operating Mode	Data Rate (Mbps)	Min	Typ	Max
802.11an	MCS15		26	
802.11an - 3 stream	MCS23		32	
Receive Sensitivity (dBm)				
Operating Mode	Data Rate (Mbps)	Typ	Max	
802.11an	6		-96	
	54		-82	
	MCS0 3x3		-95	
	MCS23 3x3		-74	

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