



IMPACT

The FUTURE of mining communications

Mobile Mesh Network



Productivity & Safety through
Mine-Spec Digital Applications

High Bandwidth
Self configuring
Fully scalable system
Self healing

Mobile Mesh Network Node Specifications

Mine Site Technologies' Mobile Mesh Networks offer a simple and robust solution for digital communications coverage in open pit operations. Wireless mesh networks are multi-hop systems in which wireless devices assist each other in transmitting packets through the network, especially in adverse conditions such as open-pit mines. A node can send and receive messages, and in a mesh network, a node also functions as a router and can relay messages for its neighbours. Through the relaying process, a packet of wireless data will find its way to its destination, passing through intermediate nodes with reliable communication links with minimal loss of throughput with multiple hops as there might be with other wireless mesh systems.

A mesh network is also scalable and can handle hundreds or thousands of nodes, because the network's operation doesn't depend on a central control point, adding multiple data collection points or gateways is as simple as installing it and switch it on.

Antenna Connections:	Type N (f)	Input Voltage:	24—48 VDC (passive power over Ether net)
Frequency:	2.412—2.462GHz	Power:	15.0 Watts @ 24V (peak)
Modulation:	DSSS, CCK, OFDM	Network:	LAN and QoS Support. Access Point, Bridge, Gateway, DHCP, NAT & Port Forwarding. Automatic Protocol Tunnelling (APT) that enables multiple gateway support Layer-3 client/server & peer-to-peer security solutions; WPA, WPA2, AES-CCMP & TKIP Encryption,
RF Output Power:	25dBm		802.1x, 64/128 bit WEP. Mesh-to-Mesh Authentication and compatible with SecNet 54 encryption
Receive Sensitivity:		Misc	Temperature
1Mbps:	-97dBm +/- 1 dBm		Storage: -40°C to 80°C (-40° F to 176° F)
2Mbps:	-96dBm +/- 1 dBm		Operating: -40°C to 80°C (-40° F to 176° F)
5.5Mbps:	-95dBm +/- 1 dBm	Certification:	FCC Class A, IC RS210
11Mbps:	-92dBm +/- 1 dBm	Dimensions:	21.3cm x 18.2cm x 5.7cm
6Mbps:	-94dBm +/- 1 dBm	Weight:	1.5 kg (3.3 lbs)
9Mbps:	-93dBm +/- 1 dBm		
12Mbps:	-91dBm +/- 1 dBm		
18Mbps:	-90dBm +/- 1 dBm		
24Mbps:	-86dBm +/- 1 dBm		
36Mbps:	-83dBm +/- 1 dBm		
48Mbps:	-77dBm +/- 1 dBm		
54Mbps:	-74dBm +/- 1 dBm		
Ether net / USB:			
2x IEEE 802.3, RJ-45 10/100 Mbps.			
1x USB port built-in (for firmware upgrades only)			

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Mine Site Technologies Pty Limited reserves the right to make changes to the specifications and information contained in this brochure at any time and without notice.
Photos of Atlas Copco Equipment - Courtesy of Atlas Copco. Z6627182MS

