

# Mobirake Wi50 NATO 4.43-4.97GHz

OFDM TDMA PMPT / IP FODU & VSU mobile radio system  
Military frequencies Spécifications



**Radio Verte - Green Radio  
Modular TDMA / IP FODU &  
VSU Radio Intended for  
PMPT Nomadic and Mobile  
telecom architecture**

Mobirake Wi50 NATO system is designed to fit a PMPT network in a classic telecom architecture with a radio located outdoor or and a sheltered or car indoor unit. MobiRake also enables transition from OFDM TDMA 5 watts radio PMP networks to hybrid Ethernet/IP networks providing up to 50 Mbps.

**DOCUMENT PROVISOIRE**

Conforme au Développement Durable  
Compliant with Sustainable Development



## NATO series 4.43/4.97 GHz

<b>RADIO</b>	
Operating Channels	4400 – 4900 MHz (in any 200 MHz operating range)
Channel Bandwidth	5/10/20 MHz
RF output power @ 64 QAM	31 dBm
RF output power @ BPSK	36 dBm
Frequency Stability	± 2 ppm
Modulation	OFDM
Range	Up to 80 Km.
<b>EFFECTIVE THROUGHPUT</b>	
5 MHz Channel BW	8 Mbps streams aggregated
10 MHz Channel BW	18 Mbps streams aggregated
20 MHz Channel BW	33 Mbps streams aggregated
Upload Stream Time Ratio supporting	20 – 80 %
<b>INTERFACES</b>	
RF (antenna) connector	1 x N-type (Jack)
Ethernet	IEEE 802.3(10Base-T) / IEEE 802.3u(100Base-Tx)
<b>MANAGEABILITY</b>	
Management and setup	Web-based configuration
Operating mode	Base station / CPE (PTMP)
SNMP agents	MIB II
Protocol	TCP/IP, IPX/SPX, NetBEUI
QOS	CPE data flow control
DHCP supports	DHCP client
Other features	VLAN(IEEE 802.1Q); Spanning tree protocol (802.1d)
<b>SECURITY</b>	
Data Encryption	WEP-128 bits / AES-256 bits encryption
Authorization	MAC Address Access Filter
Advanced Security	Disable broadcast SSID Wireless Client Security Separation (Layer 2 Isolation); Proprietary protocol
<b>ENVIRONMENT</b>	
Operating Temperature	-30°C~55°C
Storage Temperature	-30°C~70°C
Humidity	95% non-condensing
<b>POWER SUPPLY SOLUTIONS</b>	
AC 100-264V, 50-60Hz, DC 24V	
Wide range power input (10-30VDC), optional for Vehicle unit purpose	
DC 48V, optional	
<b>PHYSICAL</b>	
Dimension	259 (L) × 250 (W) × 75 (H) ; mm
Weight	n/a
<b>WARRANTY</b>	
1 year	
<b>ADVANCE</b>	
Base Station Scanning	
Ethernet Surge Protection	
<b>ORDERING INFORMATION</b>	

- Wi50-ETH2040-36 4GHz 36dBm TDMA/TDD Outdoor Radio (AC 100-264V)
- Wi50-ETH2140-36 4GHz 36dBm TDMA/TDD Outdoor Radio (DC 48V)
- Wi50-ETHV2040-36 4GHz 36dBm TDMA/TDD Vehicle Unit (10-30 VDC)

## ISM RLAN unlicensed & licensed series 4.90/6.00 GHz

RADIO			
Operating Channels	4900 – 6000 MHz		
Channel Bandwidth	5/10/20/40 MHz		
Parameter	Min.	Typical	Max.
Frequency	4900 MHz		6000 MHz
RF output power @ 64 QAM	28 dBm	30 dBm	31 dBm
RF output power @ BPSK	34 dBm	35 dBm	36 dBm
Frequency Stability	±10 ppm		
Modulation	OFDM		
Range	Up to 80 Km.		
EFFECTIVE THROUGHPUT			
5 MHz Channel BW	8 Mbps streams aggregated		
10 MHz Channel BW	18 Mbps streams aggregated		
20 MHz Channel BW	33 Mbps streams aggregated		
40 MHz Channel BW	45 Mbps streams aggregated		
Upload Stream Time Ratio supporting	20 – 80 %		
INTERFACES			
RF (antenna) connector	2 x N-type (Jack). One for Tx/Rx primary & one for Rx antenna diversity		
Ethernet	IEEE 802.3(10Base-T) / IEEE 802.3u(100Base-Tx)		
MANAGEABILITY			
Management and setup	Web-based configuration		
Operating mode	Base station / CPE (PTMP)		
SNMP agents	MIB II		
Protocol	TCP/IP, IPX/SPX, NetBEUI		
QOS	CPE data flow control		
DHCP supports	DHCP client		
Other features	VLAN(IEEE 802.1Q); Spanning tree protocol (802.1d)		
SECURITY			
Data Encryption	WEP-128 bits / AES-256 bits encryption		
Authorization	MAC Address Access Filter		
Advanced Security	Disable broadcast SSID Wireless Client Security Separation (Layer 2 Isolation); Proprietary protocol		
ENVIRONMENT			
Operating Temperature	-30°C~55°C		
Storage Temperature	-30°C~70°C		
Humidity	95% non-condensing		
POWER SUPPLY SOLUTIONS			
AC 100-264V, 50-60Hz, DC 24V			
Wide range power input (10-30VDC), optional for Vehicle unit purpose			
DC 48V, optional			
PHYSICAL			
Dimension	259 (L) × 250 (W) × 75 (H) ; mm		
Weight	n/a		
WARRANTY			
1 year			
ADVANCE			
Base Station Scanning			
Ethernet Surge Protection			
ORDERING INFORMATION			

- Wi50-ETH2050-36 5GHz 36dBm TDMA/TDD Outdoor Radio (AC 100-264V)
- Wi50-ETH2150-36 5GHz 36dBm TDMA/TDD Outdoor Radio (DC 48V)
- Wi50-ETHV2050-36 5GHz 36dBm TDMA/TDD Vehicle Unit (10-30 VDC)