

VERSION: 2.5

Manpack Wireless High-Power Antenna

850 - 2500 MHz

Product Code: OMNI-A0140

SPECIFICATIONS:

Electrical: Frequency range 850 – 960 MHz; 1700 – 2500 MHz Gain 3 – 4 dBi typical (in band) Azimuth pattern Omni, 3 dB ripple Elevation pattern Narrow beam Polarisation Vertical Nominal impedance 50 Ω VSWR < 2.5:1 or better Power handling: 850 – 2200 MHz 200 – 2500 MHz 50 W CW Connector N-type male at base Groundplane requirements Groundplane independent Mechanical: Dimensions (I x d) Dimensions (I x d) 650 mm x 35 mm Total mass 0.4 kg Mounting On N-type connector at base Colour Black, others on request Environmental: designed to meet the following specifications Temperature range Storage: -41 °C to +71 °C Operation -31 °C to +55 °C Weatherproofing IP66 water resistant (when mounted on a connector) Shock and vibration MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass Powder-coated aluminium			
Gain 3 – 4 dBi typical (in band) Azimuth pattern Omni, 3 dB ripple Elevation pattern Narrow beam Polarisation Vertical Nominal impedance 50 Ω VSWR < 2.5:1 or better	Electrical:		
Azimuth pattern Omni, 3 dB ripple Elevation pattern Narrow beam Polarisation Vertical Nominal impedance 50 Ω VSWR < 2.5:1 or better	Frequency range	850 – 960 MHz; 1700 – 2500 MHz	
Polarisation Vertical	Gain	3 – 4 dBi typical (in band)	
Polarisation Vertical Nominal impedance 50 Ω VSWR < 2.5:1 or better	Azimuth pattern	Omni, 3 dB ripple	
Nominal impedance 50 Ω	Elevation pattern	Narrow beam	
VSWR < < 2.5:1 or better Power handling: 850 – 2200 MHz	1 Granication	Vertical	
Power handling: 850 – 2200 MHz 70 W CW 2200 – 2500 MHz 50 W CW Connector Groundplane requirements Groundplane independent Mechanical: Dimensions (I x d) Total mass 0.4 kg Mounting On N-type connector at base Colour Black, others on request Environmental: designed to meet the following specifications Temperature range Storage: -41 °C to +71 °C Operation -31 °C to +55 °C Weatherproofing Weatherproofing Shock and vibration MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass	Nominal impedance	50 Ω	
850 – 2200 MHz 70 W CW 2200 – 2500 MHz 50 W CW Connector Groundplane requirements Mechanical: Dimensions (I x d) Total mass On N-type connector at base Colour Black, others on request Environmental: designed to meet the following specifications Temperature range Weatherproofing Shock and vibration Town CW N-type male at base Groundplane independent Frequirements On N-type connector at base Storage: -41 °C to +71 °C Operation -31 °C to +55 °C IP66 water resistant (when mounted on a connector) MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass	VSWR	< 2.5:1 or better	
Shock and vibration Server of the following specifications Storage: -41 °C to +71 °C Operation -31 °C to +55 °C IP66 water resistant (when mounted on a connector) Shock and vibration Storage: -40 °C to +70 °C Operation -31 °C to +55 °C Operation -31 °C to +35 °C	Power handling:		
Connector Groundplane requirements Mechanical: Dimensions (I x d) Total mass O.4 kg Mounting On N-type connector at base Colour Black, others on request Environmental: designed to meet the following specifications Temperature range Weatherproofing Weatherproofing Shock and vibration N-type connector at base Colour Black, others on request Storage: -41 °C to +71 °C Operation -31 °C to +55 °C IP66 water resistant (when mounted on a connector) MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass	850 – 2200 MHz	70 W CW	
Groundplane requirements Mechanical:	2200 – 2500 MHz	50 W CW	
Mechanical:	Connector	N-type male at base	
Mechanical: Dimensions (I x d) 650 mm x 35 mm Total mass 0.4 kg Mounting On N-type connector at base Colour Black, others on request	Groundplane	Groundplane independent	
Dimensions (I x d) Total mass O.4 kg Mounting On N-type connector at base Colour Black, others on request Environmental: designed to meet the following specifications Temperature range Storage: -41 °C to +71 °C Operation -31 °C to +55 °C Weatherproofing Weatherproofing Shock and vibration MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass	requirements		
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Total mass Mounting On N-type connector at base Colour Black, others on request Environmental: designed to meet the following specifications Temperature range Storage: -41 °C to +71 °C Operation -31 °C to +55 °C Weatherproofing Weatherproofing Shock and vibration MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass			
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Colour Black, others on request Environmental: designed to meet the following specifications Temperature range Storage: -41 °C to +71 °C Operation -31 °C to +55 °C Weatherproofing IP66 water resistant (when mounted on a connector) Shock and vibration MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass	Total mass	0.4 kg	
Environmental: designed to meet the following specifications Temperature range Storage: -41 °C to +71 °C Operation -31 °C to +55 °C Weatherproofing IP66 water resistant (when mounted on a connector) Shock and vibration MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass	Mounting		
Temperature range Storage: -41 °C to +71 °C Operation -31 °C to +55 °C Weatherproofing IP66 water resistant (when mounted on a connector) MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass	Colour	Black, others on request	
Temperature range Storage: -41 °C to +71 °C Operation -31 °C to +55 °C Weatherproofing IP66 water resistant (when mounted on a connector) MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass			
Weatherproofing Weatherproofing Weatherproofing Shock and vibration Shock and vibration Operation -31 °C to +55 °C IP66 water resistant (when mounted on a connector) MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass	Environmental: designed to meet the following specifications		
Weatherproofing Weatherproofing IP66 water resistant (when mounted on a connector) MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass	Temperature range	Storage: -41 °C to +71 °C	
Weatherproofing (when mounted on a connector) Shock and vibration MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass			
Shock and vibration MIL-STD-810E 516.4: Vibration category 8, shock 40 g Painted fibreglass	Weatherproofing	in de mater recietant	
Shock and vibration Vibration category 8, shock 40 g Painted fibreglass		,	
Vibration category 8, shock 40 g Painted fibreglass	Shock and vibration	1 2 . 2 . 3 . 3	
Powder-coated aluminium	Exposed materials		
		Powder-coated aluminium	

PRODUCT FEATURES:

- High gain communications highpower antenna
- Covers all handheld wireless bands
- Proven flexible base spring protects the antenna

PRODUCT OVERVIEW:

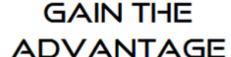
This banded antenna is for interception of wireless communications. It is mounted on an N-type connector base, with a spring for shock absorption and flexibility. A glass-fibre tube contains the antenna RF board.

The array covers the GSM 900, PCS, UMTS/3G and WLAN bands. Full-specification coverage starts at 850 MHz, but there will be reduced performance down to 500 MHz. A 2-stack array of multi-band dipoles is used to provide gain at these frequencies, with a small down tilt to improve close-in coverage.

The lowest feed point is elevated about 250 mm from the base of the antenna, allowing the signal to be radiated over the user's head. This reduces absorbed power and increases field strength at the target.







Manpack Wireless High-Power Antenna

850 - 2500 MHz

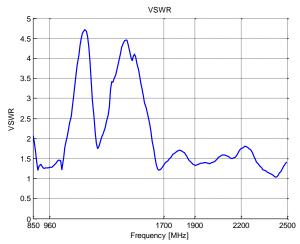
Product Code: OMNI-A0140 VERSION: 2.5

GAIN:

-10 850 960

Measured VSWR and gain graphs:

Typical VSWR:



Gain 10 8 6 4 2 0

1700 1 Frequency [MHz]

2200

2500

