

## Multi-Frequency 900 | 869 | 400 MHz Wireless Modem

For the ultimate solution in design flexibility and size sensitive applications, consider the Pico Series P401 radio platform. Offering software selectable ISM 900 MHz, 869 MHz & Licensed 400MHz modes, in a single module, the P401 provides an economical solution with the design flexibility, features, and performance never seen before!

*400 MHz Licensed*

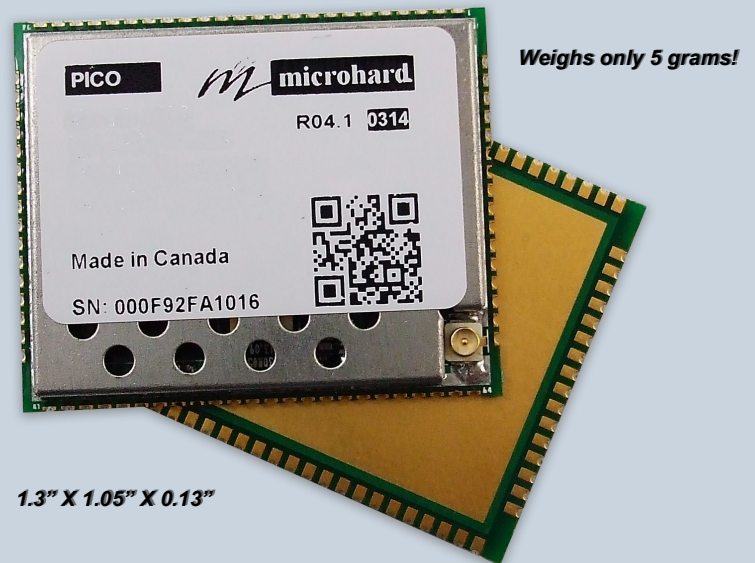
*869 MHz*

*900 MHz ISM*

*Up to 2 Watts*

*Extended Temperature*

*Dual Serial Ports*



## P401 Features

- Supports up to 345 kbps (@ 900MHz)
- Software Selectable 400 MHz, 869 MHz & 900 MHz Bands.
- Multi Stage, SAW Filters provide Extreme Noise & Interference Rejection
- Point-to-Point, Point-to-Multipoint, Store & Forward Repeater
- Industrial Temperature (-55°C to +85°C)
- Maximum allowable transit power (Adjustable)
- 32 bits of CRC, selectable Forward Error Correction with retransmission
- Separate diagnostics port - remote diagnosis and online network control
- Extremely Small Footprint (26.5 x 33 x 3.5mm | 1.3 x 1.05 x 0.15")
- Compatible with some GPS Radio Transceivers
- Microhard compatibility with 920F

## Enclosed Option



# Pico Series

# Specifications

<b>Spreading Method / Modulation Scheme</b>	Frequency Hopping, GMSK, 2GFSK, 4GFSK, QPSK	<b>Frequency 410 to 480 MHz (Licensed Band)</b>				
<b>Channel Bandwidth</b>	400 MHz 869 MHz 900 MHz	6.25   12.5   25 KHz (Selectable) (10) - 25kHz Channels <u>or</u> (1) 250 KHz Channel Varies by link rate - see table	<b>Rate (kbps)</b>	<b>Power</b>	<b>Sensitivity (dBm)</b>	<b>Bandwidth (kHz)</b>
<b>Forward Error Correction</b>	Hamming, BCH, Golay, Reed-Solomon, Viterbi	3.6	2W	-118	6.25	
<b>Error Detection</b>	32 bits of CRC, ARQ	4.8	2W	-117	12.5	
<b>Encryption</b>	Optional (see -AES option)	9.6	2W	-115	12.5	
<b>Range</b>	60 miles (100 km)	19.2	2W	-114	25	
<b>Serial Interface</b>	3.3V CMOS RS232/485 (Selectable)	<b>Frequency 869.5 to 869.75 MHz</b>				
<b>Serial Baud Rate</b>	300 bps to 230 kbps	19.2	500 mW	-116	25	
<b>Operating Modes</b>	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer	56	500 mW	-113	250	
<b>Signals Interface</b>	RSSI LEDs, Tx/Rx LEDs, Reset, Config, Wake-up, RSMODE, 4 Digital Inputs/Outputs, 1 Analog Input, 1 Analog Output	115.2	500 mW	-109	250	
<b>Remote Diagnostics</b>	Battery Voltage, Temperature, RSSI, Packet Statistics	172.8	500 mW	-108	250	
<b>Rejection</b>	Adjacent Channel @ 400 MHz: 60 dB Alternate Channel @ 400 MHz: 70 dB Adjacent Channel @ 869 MHz: 50 dB Alternate Channel @ 869 MHz: 60 dB Adjacent Channel @ 900 MHz: 57 dB Alternate Channel @ 900 MHz: 65 dB	<b>Frequency 902 to 928 MHz (Frequency Hopping)</b>				
<b>Core Voltage</b>	<b>OEM</b> 3.3VDC is required for 1W <b>Enclosed</b> 3.6VDC is required for 2W 9-30 VDC	19.2	1W	-116	25	
<b>Power Consumption (3.3V)</b>	Idle: 20mA Rx: 45mA to 98mA Tx Peak: 2A	56	1W	-113	60	
<b>Connectors:</b>	<b>OEM</b> Antenna: UFL Data: 80 Pin SMT <b>Enclosed</b> Antenna: RP-SMA Female Bulkhead Data: DB9-F	115.2	1W	-109	150	
<b>Environmental</b>	-55°C - +85°C 5-95% humidity, non-condensing	172.8	1W	-108	180	
<b>Weight</b>	<b>OEM</b> Approx. 5 grams <b>Enclosed</b> Approx. 120 grams	230.4	1W	-106	230	
<b>Dimensions</b>	<b>OEM</b> Approx. 1.05" x 1.3" x .13" (26.5mm x 33mm x 3.5mm) <b>Enclosed</b> Approx. 1.80" x 2.60" x 1.0" (46mm x 66mm x 25mm)	276.4	1W	-105	230	
<b>Approvals</b>	FCC Part 15.247 IC RSS210 FCC Part 15.90 IC RSS119 RoHS Compliant	345	1W	-103	400	
		<b>Order Options</b>				
		<b>P401</b>	Multi-Frequency 900MHz, 869 MHz, 400MHz Modem			
		<b>-AES</b>	128-bit AES Encryption.*			
		<b>-ENC</b>	Enclosed Model			
		* AES encryption requires Export Permit				

## Contact Information

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Microhard Systems Inc.  
150 Country Hills Landing N.W.  
Calgary, AB, Canada T3K 5P3

Email: [info@microhardcorp.com](mailto:info@microhardcorp.com)  
Tel: (403) 248-0028  
Fax: (403) 248-2762



[www.microhardcorp.com](http://www.microhardcorp.com)