

Ultra Wideband Frequency Hopping with Uplink/Downlink Diversification

Ultra robust RF link with wide frequency hopping from 300 MHz to just below 3GHz. The Radio supports Frequency Hopping Diversity on the Uplink and Downlink, so the user can program different hop patterns such that Uplink and Downlink frequency are completely different. High Input IIP3, special RF filtering, and wide band frequency hopping makes the radio very robust and hard to jam in harsh RF environments.

Weighs only 5 grams!



1.3" X 1.05" X 0.13"

Software PGM Independent Uplink & Downlink Frequency Hopping

Strong Interference Rejection

300MHz to 3GHz Frequency Hopping

Data Rate 2kbps to 500kbps*

High Power (1W)**

Optional AES256 Encryption

Excellent Sensitivity (Up to -126dBm)

Features

- Independent Uplink & Downlink Frequency Hopping
- Software Selectable Multi-Frequency, 300MHz to 3GHz
- Wireless Data Rates from 2 kbps to 500 kbps*
- Strong Interference Rejection
- Point-to-Point, Point-to-Multipoint, Store & Forward Repeater
- Industrial Temperature (-40°C to +85°C)
- 1W TX Power Across 3GHz
- 32 bits of CRC, selectable Forward Error Correction with retransmission
- Extremely Small Footprint (26.5 x 33 x 3.5mm | 1.3 x 1.05 x 0.15")

Available only to Qualified Customers under NDA



Enclosed Option

Pico-X-SWP

Microhard - Confidential

* Future - Higher Data Rates

** External Amplifiers can add more power, see Microhard PA Series for higher power

Specifications

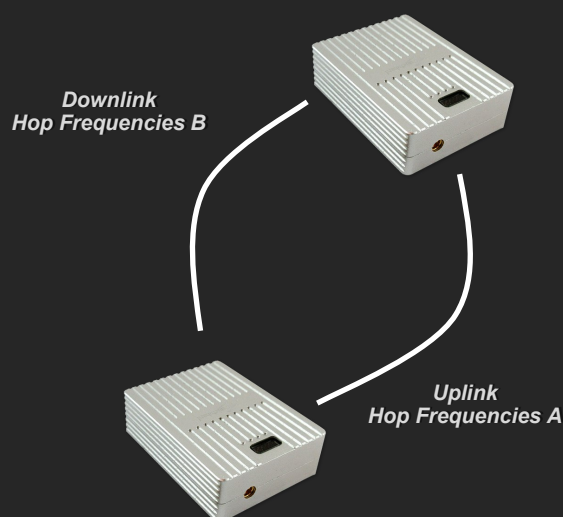


Frequency	300MHz to 3GHz (Software Selectable) <i>Exact under NDA</i>
Spreading Method	Robust Frequency Hopping
Wireless Data Rate	2kbps to 500kbps*
Forward Error Correction	Hamming BCH Golay Reed-Solomon Viterbi
Error Detection	32 bits of CRC, ARQ
Encryption	Optional (see -AES option)
Output Power	Up to 1W **
Sensitivity	Up to -126dBm
Range	> 200km
Serial Interface	3.3V CMOS RS232/485 (Selectable)
Serial Baud Rate	300bps to 230kbps
Operating Modes	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer
Signals Interface	RSSI LEDs, Tx/Rx LEDs, Reset, Config, Wake-up, RSmode, 4 Digital Inputs/Outputs, 1 Analog Input, 1 Analog Output
Remote Diagnostics	Battery Voltage, Temperature, RSSI, Packet Statistics
Core Voltage	OEM 3.3/5VDC Enclosed 7-30VDC SWP 7-30VDC
Connectors:	OEM Antenna: UFL Data: 80 Pin SMT Enclosed Antenna: RP-SMA Female Bulkhead Data: DB9-F SWP Antenna: MMCX Power, Data: 10-Pin (GHR-10V-S)

Power Consumption (3.3V)	Sleep: < 1mA Idle: 20mA Rx: 45mA to 98mA Tx Peak: 2A
Environmental	Temperature -40°C to +85°C Humidity 5-95% humidity, non-condensing
Weight	OEM ~ 5 grams Enclosed ~ 120 grams SWP ~ 37 grams
Dimensions	OEM ~ 26.5 x 33 x 3.5 mm Enclosed ~ 46 x 66 x 25 mm SWP ~ 36 x 48 x 15 mm

Order Options

Pico-X	Multi Frequency Radio up to 3GHz.
-AES256	256-bit AES Encryption. Requires export permit.
-ENC	Enclosed Model
-SWP	SWP Series



* Future - Higher Data Rates

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