wi2wi

enabling a connected world

Wi2Wi is a vertically integrated, global manufacturer provider of Wireless Connectivity Solutions, Timing Devices, Frequency Control Devices and Microwave Filters to the global market.

Wireless Connectivity

Location & Navigation

Timing & Frequency Control

Antennas & Connectors

For Technical Assistance

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Other : +91-40-48540116

Wi2Wi

Wi2Wi is a vertically integrated global manufacturer providing Wireless Connectivity Solutions, Location & Navigation Solutions, Timing Devices, Frequency Controllers and Microwave Filters to the global market. Wi2Wi provides modules and subs systems based on 2.4GHz Wi-Fi 802.11 b/g/n, Dual Band Wi-Fi 802.11 ac/a/b/g/n (2.4/5GHz), Wi-Fi 802.11 b/g/n plus Bluetooth Multi-Protocol, 802.11 a/b/g/n/ac+BLE 4.2 and Bluetooth BLE modules and are widely accepted in the Internet of Things (IoT) and Industrial Internet of Things (IIoT/M2M) markets. These Wi2Wi's Hosted, Embedded and MCU Embedded module and subsystem architecture serves the unique technical requirements of each customer into various market segments; Healthcare, Home/Building Automation, Retail, Medical, After Market Automotive etc. Wi2Wi's locationing module solutions support multi-constellation GPS, GLONASS, SBAS, and QZSS. Wi2Wi is a well-recognized name in the Avionics, Space, Industrial and Military markets through its "PDI" Brand Quartz Crystals, Crystal Oscillators, Crystal Filters, and MILPRF55310 certified QPL Oscillators, MIL PRF 3098 certified Crystals and Space Qualified Oscillators.

Strategically located in the USA, the Company's headquarter is based in San Jose, CA, in the heart of Silicon Valley and its design and engineering for wireless connectivity and global navigation satellite system (GNSS) solutions is located in India. Wi2Wi's state-of-the-art manufacturing and operations, along with design and engineering for timing devices, frequency controllers and RF & microwave filters, are based in Middleton, WI, in North America's industrial belt. Wi2Wi provides an extensive product range of both "out-of-the-box" and customized solutions, leveraging its technology along with tier-1 global partnerships with industry leading silicon and supply chain companies to serve many of the world's largest and most innovative companies, including more than 300 "blue chip" customers.

Technical Partners

QUALCOMM

FRACTUS ANTENNAS

life.augmented

MARVELL

ASE GROUP

IAR SYSTEMS

Business Partners

MOUSER ELECTRONICS

CENTEC INC

TPX.se

NEXCOMM asia

Motion Micro Solutions

AVNET

Unified

falcon electronics

NAC design & distribution solutions

TechOne electronics

Wireless Connectivity

Our certified high performance, low power wireless modules provides easy way of integrating wireless technologies as Wi-Fi IEEE 802.11 ac/a/b/g/n, Bluetooth 5/4.2 (Single mode/Dual mode), BLE 4.1, etc. into existing or new product designs. We are committed to offering reliable and cost-effective wireless connectivity solutions for connecting smart objects to the internet and the cloud for the Internet of Things (IoT). To speed up your time to market, reference designs and modules are available as well as a complete development ecosystem with software packages, protocol stacks and evaluation boards.

Maximum Performance (MX)

MX Module family are based on hosted architecture targeting high performance platforms where flexibility and scalability is utmost important to the customers.

- Small size: 12.5 mm x 16 mm x 1.76 mm
- IEEE 802.11b/g/n Single-Band Wi-Fi, 1x1 SISO
- Supports Station, Access Point, Wi-Fi Direct Mode as well as simultaneous
- Onboard Chip/Trace* Antenna
- Support for Antenna Diversity
- Drivers available for Linux & Android
- Support for SDIO and USB host interfaces
- Available in multiple operating temperatures: Industrial (-40℃ to +85℃) , Extended (-30℃ to +85℃), Commercial (0℃ to +70℃)
- Global certifications: FCC, IC, CE

WM825B00 - Single Band Wi-Fi Module with Chip/Trace Ant and MHF4 IPEX connector

WM828CC6 - Dual Band Wi-Fi + Bluetooth 4.2 (Smart Ready / BLE) Combo Module with MHF4 IPEX connector
Also available in **M.2 1216 & 2230**

- Ultra-Small : 13 mm x 11 mm x 1.86 mm
- IEEE 802.11 ac/a/b/g/n – Wi-Fi
- Bluetooth 4.2, BLE (Dual-Mode)
- Very high throughput up to 300 Mbps
- Interface - SDIO can operate at 1.8 /3.3V
- Drivers available for Linux & Android
- Fully integrated co-existence solution
- Temperature range (-30°C to +85°C)
- Global certifications: FCC, IC, CE

Embedded (EM)

Low power, high performance EM Module family are targeted to substantially reduce the complexity of development and time to market for customers by fully integrating antenna, TCP/IP stack, wireless stack, security supplicants and application APIs and run a real time operating system.

WE935B00 - Single-Band (2.4 GHz) Embedded Wi-Fi b/g/n module with Integrated antenna

- Small footprint: 15 mm x 16.5 mm x 1.86 mm
- Compliant to IEEE 802.11b/g/n Wi-Fi, 1x1 SISO
- UART, SPI & USB* Host Interfaces
- Supports Station, Access Point and Con-current (simultaneous AP + Station) Mode
- Onboard Chip Antenna + MHF4 IPEX Connector

MCU Embedded (ME)

Highly integrated, low power, high performance ME family are embedded architecture modules that run a real time operating system with integrated Networking & Wireless stacks, security supplicants and application APIs inside the device and targeted for enabling the end user to write their applications directly on the device and avoid using the external MCU.

WC7220B0 - BLE Module (Bluetooth Low Energy 4.1 / Bluetooth Smart) with antenna

- Smallest BLE Module: 8 mm x 12 mm x 1.85 mm
- Standalone Bluetooth v4.1/BLE (includes MCU)
- Bluetooth v4.1 specification
- 1 Analog IO, 12 Programmable Digital IOs, and PWM
- 128KB memory: 64KB RAM and 64KB ROM
- 512Kb EEPROM for firmware, Application and MAC
- Integrated chip antenna
- Interfaces supported: UART, I2C
- Operating temperature range (-30°C to +85°C)

Coming Soon

WC640AD7 – Dual Band Wi-Fi + BLE 5 + ZigBee MCU integrated Module with antenna

- Dimension: 30.5mm x 20.5mm x 1.86mm
- CPU: Arm Cortex-M4F with clock up to 128 MHz
- Dual band Wi-Fi, Bluetooth 5, and IEEE 802.15.4 concurrently
- Dedicated processor for Bluetooth LE LC, 15.4 MAC and 802.11 a/b/g/n
- Zigbee 3.0 and OpenThread support
- Interfaces: SPI, UART, PWM, I2S, I2C, SDIO, ADC and GPIOs
- 300+KB RAM reserved for applications
- Bluetooth radio details: v5.0 with PA =+4dBm/+10dBm (for Long Range)
- 802.15.4 radio details: 2006 compliant, 15.4e,
- 2.4GHz DSSS +4dBm/+21dBm (for Long Range)

Location & Navigation

Locationing and navigation has indeed become a part and parcel of our daily life, Wi2Wi is one of the pioneers in GPS/GNSS designs since a decade with its very small form factor GPS/GNSS modules, with its state of the art modules and *multi-constellation* receiver capabilities Wi2Wi is already catering to customers all over the world for Navigation and locationing needs.

- Small footprint: 7 mm x 7 mm x 2 mm
- GNSS Technology based on SiRFStarV™ architecture
- Concurrent tracking of signals from GPS, GLONASS, QZSS satellite systems
- Support for SBAS (WAAS, EGNOS, MSAS, GAGAN)
- Protocols for output data: NMEA and OSP
- Support for UART, I2C and SPI host interfaces
- Global certifications available: FCC, IC, CE
- Temperature range -40 to +85 degrees C

W2SG0021i - GNSS Module | GPS, GLONASS, QZSS, SBAS | based on SiRFstarV™

W2SG0008i - GPS Module based on SiRF Star IV™

- Small footprint: 6.75 mm x 6.75 mm x 2 mm
- GPS Technology based on SiRF Star IV™ architecture
- Support for SBAS (WAAS, EGNOS, MSAS, GAGAN)
- Protocols for output data: NMEA and OSP
- Support for UART, I2C and SPI host interfaces
- Global certifications available: FCC, IC, CE
- Temperature range -40 to +85 degrees C

- Dimension: 11.2 mm x 12 mm x 2.2 mm
- GPS Technology based on SiRF Star IV™ architecture with integrated EEPROM
- Support for SBAS (WAAS, EGNOS, MSAS, GAGAN)
- Protocols for output data: NMEA and OSP
- Support for UART, I2C and SPI host interfaces
- Global certifications available: FCC, IC, CE
- Temperature range -40 to +85 degrees C

W2SG0084i - GPS Module based on SiRF Star IV™ with EEPROM

Antennas & Connectors

Wi2Wi offers variety of antennas and connectors based on type of material as the accessories for it wireless connectivity products. These can be used for any third party wireless products as well. Wi2Wi has omni directional, Multi-position, Dipole Antenna with an SMA female.

WACC-MHF4-SMAF-100-113

An antenna connector cable with a SMA Female port on one end and a MHF4 IPEX (HSC compliant) Female port on the other end. The length of this connector cable is 100 mm with diameter of 1.13 mm

WASB-2400-20-SMAM

A Single-band, omni-directional, multi-position, dipole antenna with an SMA Plug (SMA Male port); hence it requires a connector with RP SMA Plug (SMA Female port).

Gain : 2 dBi
Type : Dipole
Frequency : 2.4 GHz – 2.5 GHz

WADB-MHF4-FPCB-100-M01

Flex Antenna for dual-band Wi-Fi (802.11 ac/a/b/g/n), Bluetooth, BLE and Zigbee applications. This multi-Protocol Combo Flexible PCB antenna is linearly polarized and Omni-directional. The length of RF cable is 100 mm. One side of the cable is connected to Flex PCB antenna and the other side is terminated with a MHF4 IPEX RF connector

Gain : 1.6 dBi for 2.4 Gig and 4.6dBi for 5 Gig
Frequency : 2.4 GHz – 2.5 GHz
4.9 GHz – 5.8 GHz

WADB-2458-23-SMAM

A dual-band, omni-directional, multi-position, dipole antenna with an SMA Plug (SMA Male port); hence it requires a connector with RP SMA Plug (SMA Female port).

Gain : 2 dBi for 2.4 Gig and 3dBi for 5 Gig
Type : Dipole
Frequency : 2.4 GHz – 2.5 GHz
5.1 GHz – 5.8 GHz

Timing & Frequency Control Devices

Wi2Wi, through the acquisition of Precision Devices Inc. (PDI) has long proven history of providing Rugged, Robust and Reliable Timing and Frequency Control Devices for the Aerospace, Defence, Industrial, Telecom and Consumer market segments. Wi2Wi offers a broad range of Crystals, Clock Oscillators, TCXO, VCXO, OCXO, Crystal Filters and RF & Microwave Filters. Products are manufactured in the ISO 9001:2008 certified factory in Middleton Wisconsin. Qualified Product List (QPL) Oscillators are certified to meet MIL-PRF-55310 and Crystals are certified to meet MIL-C-3089 and further meets all requirements of MIL-STD-790 Product Assurance (A QPL Company). Wi2Wi has in-house Reliability Test Lab where all products go through extensive reliability testing. All products are offered in various operating temperatures and comes in various packages. All products under Timing and Frequency control family can be customised to meet customers' unique requirements. Many output types and package types available for delivery at ANY frequency from 10 MHz to 1450 MHz in as little as 2 days.

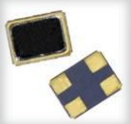
Crystals

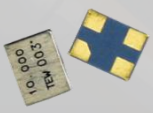
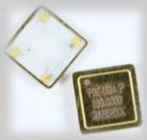
Generic

Wi2Wi designs and manufactures hermetically sealed quartz crystals to meet customer's most demanding specification. All crystals are available in standard or custom frequencies and are available in through-hole and SMD packages. Wi2Wi provides fast sampling for your proto-typing needs, mass production capability, and competitive pricing.

Frequency Range : 32 KHz to 200 MHz
Package Types : TO-5 Cold Weld, TO-8 Cold Weld, TO-5 Resistance Weld, SMD, HC49S Resistance Weld





QPL

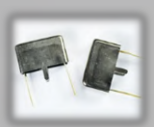
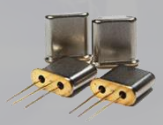
Qualified Product List (QPL) Crystals are quartz crystal products that are certified to meet MIL-PRF-3098. PDI designs and manufactures hermetically sealed quartz crystals to meet your most demanding specification. All crystals are available in standard or custom frequencies and are available in through-hole and SMD packages.

Frequency Range : 2.2 MHz to 62 MHz
Package Types : Thru-Hole


Crystal Filters

Wi2Wi's standard and custom quartz crystal filters available in single and multi-pole configurations. All crystal filters are available in through-hole and SMD packages and contain hermetically sealed quartz crystals. Wi2Wi provides fast sampling from customer's proto-typing needs through mass production and offer competitive pricing and on-time deliveries.

Frequency Range : 10.7 MHz to 200 MHz
Package Types : Thru-Hole, SMD


Clock Oscillators

Generic

Wi2Wi designs and manufactures both standard and custom quartz crystal clock oscillators. Our clock oscillators provide precision timing in a hermetically sealed package.

Frequency Range : 30 KHz to 1 GHz
Package Types : SMD Seam Welded, DIP8 & 14, Ceramic SMD, Ceramic J-Lead, J Lead Gull Wing Thru Hole
Output Types : LVDS, TTL/CMOS, LVCMOS, LVPECL, HCMOS

OCXO

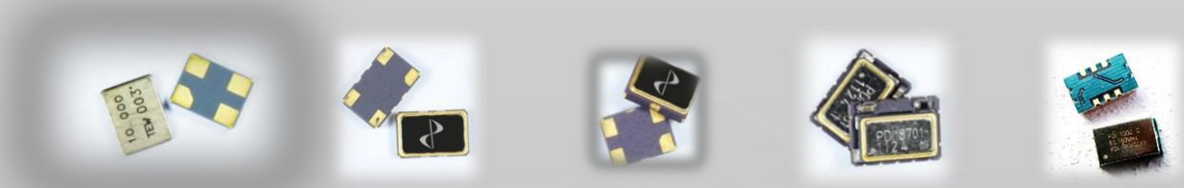
Oven Controlled Crystal Oscillators (OCXO) from Wi2Wi ensures a precise frequency under the most demanding circumstances. With ultra-low phase noise, high vibration tolerances, a variety of popular packages, and double hermetically sealed quartz crystals. Our OCXOs are offered in standard and custom frequencies.

Frequency Range : 5 MHz to 100 MHz
Package Types : Gull Wing, Thru Hole
Output Types : HCMOS / LVCMOS, Sinwave into 50ohms

TCXO / TXVCXO / VCXO

Wi2Wi's Temperature Compensated Crystal Oscillators (TCXO) ensures a precise frequency under demanding circumstances. With ultra-low phase noise, low jitter, high vibration tolerances, a variety of popular packages, and hermetically sealed quartz crystals. PDI Brand TCXOs are offered in standard and custom frequencies.

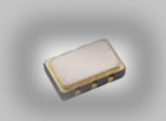
Frequency Range : 32.768 KHz to 800 MHz
Package Types : SMD Seam Welded
Output Types : Clipped Sine, TTL/CMOS, LVCMOS , HCMOS, PECL, TTL, LVPECL, LVDS



Programmable

Programmable Clock Oscillators, with Wi2Wi's proprietary programmable PLL Technology, contains our client industries best features, performance and functionality. It can withstand the most extreme environment without compromising performance. These products support various output types such as LVPECL, LVDS, and LVCMOS.

Frequency Range : 10MHz to 1.5GHz
Package Types : SMD
Output Types : LVCMOS, LVDS or LVPECL



- **FC Series Programmable Fast/Quick Turnaround Clock Oscillators**
- **FV series of Voltage Controlled Crystals Oscillators (VCXO)**

QPL - MIL-PRF-55310 Oscillators

Wi2Wi designs and manufactures a wide range of Qualified Product List (QPL) Oscillators for a wide range of applications in Military, Space, and Avionics. QPL Oscillators are quartz crystal clock oscillator products that are certified to meet MIL-PRF-55310. The Rugged, Robust and Reliable products from the Military QPL family exceeds all the performance and features required by MIL-PRF-55310 and are offered over the temperature range of -55°C to 125°C. The products from this family are offered in hermetically sealed Metal and Ceramic packaging in both Thru-Hole (THT), Surface Mount (SMD) and J-Lead. Qualified as Type 1, Class2 Oscillators. This product Family offers many alternative outputs including CMOS, HCMOS, ACMOS, and TTL. The frequency of the Oscillators can be customized based on customer's end applications. Qualified MIL-PRF-55310 slash numbers include /08, /09, /14, /16, /17, /18, /19, /21, /25, /26, /30.

Frequency Range : 0.1 Hz to 100 MHz
Package Types : Flat Pack, SMD, Thru-Hole, J-Lead
Output Types : TTL, CMO, ECL, LVCMOS

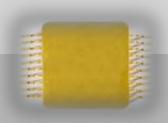


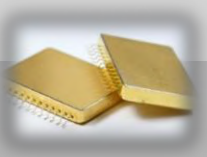


Space Level

Wi2Wi designs and manufactures a wide array of Space Qualified (Space Level) Quartz Clock Oscillators specifically for the Avionics and Space market. The product family is hermetically sealed to exceed all performance and functionality requirements in the extreme environment in the space applications. The Space level qualified Oscillators are available in standard and custom frequencies; from 750KHz through 850MHz and available in various outputs; CMOS, LVCMOS, LVDS and in LVPCEL. The products can be configured to a single or Multipole configuration and available in Thru-Hole (THT) and Surface Mount (SMD) packages with package foot prints such as Flat Pack, J Lead and Gull Wing.

Frequency Range : 750 KHz to 850 MHz
Package Types : Flat Pack, J Lead, Gull Wing, Thru Hole
Output Types : CMO, LVCMOS, LVDS, LVPECL





RF & Microwave Filters

Wi2Wi's "PDI brand" expansive filter product offering serves nearly every application and performance level, with Avionics-grade reliability. Wi2Wi's philosophy of developing standard design platforms that can be easily customized to meet the Application Specific demands allows customers to cost effectively optimize their overall system performance. Wi2Wi has the solution and technical resource to make customer's designs perform at the highest level.

Frequency Range : 500 KHz to 20 GHz
Package Types : Cavity and LC


Certifications

ISO 9001 FM 75597

Plant Tour

Middleton, Wisconsin is home to our 50,000 square foot branch office, manufacturing, design and global operations facility. The two-story manufacturing plant is divided into two main manufacturing floors that are separated by our clean room, Hi-Rel (high reliability) test lab and crystal etch room. Visitors to either of the manufacturing floors will find a vast array of the latest manufacturing and test equipment in a pristine assembly environment operated by a well-trained team of experienced professionals.

Filter line. Production floor

Surface Mount Assembly

Production Testing

Clean room

Quality Assurance

Tape & Reel

Wi2Wi Offices

Wi2Wi Distributor Partners

Wi2Wi Sales Representatives

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