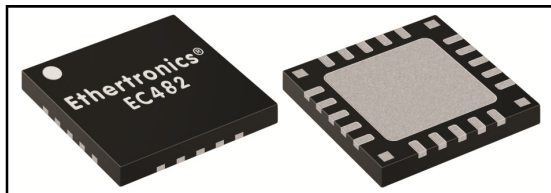


## Active Steering 5GHz™ WiFi

100 MHz to 7000 MHz



Ethertronics' EtherChip EC482 enables Ethertronics' Active Steering technology. EC482 has been specifically designed for the high frequency and fast RF switching environment WiFi systems demand. Embedded in the EC482 is Ethertronics' proprietary algorithm and communication and control conduits to enable Active Steering for WiFi applications using Ethertronics' unique and proprietary Isolated Magnetic Dipole (IMD) antenna technology. The EC482 can be used in a variety of applications including:

Access Points | Set-top Boxes | WiFi Clients  
Smart Appliances | WiFi Extenders

### TECHNOLOGY ADVANTAGES

Ethertronics' Active Steering, EC482 and IMD technologies provide the ability to optimally select the antenna radiation pattern that provides the best RF link performance. The EC482 contains not only the RF switching which acts as the transducer to adjust the IMD antenna's pattern, but also the algorithm that adaptively makes the optimal selection. Active Steering provides revolutionary improvements in: range, data throughput, interference reduction, robustness in multipath environments, connection reliability and spectral efficiency.

### SYSTEM APPROACH—EASY INTEGRATION

Ethertronics provides the total solution. The EC482, the algorithm and WiFi antennas are co-developed and optimized as a system to provide a solution that is cost effective and easy to integrate. Worldwide Applications support and user development tools are available: evaluation board, antenna reference design, host firmware driver, PC control software and software driver. Integration is simple and seamless.



### KEY BENEFITS

#### Features

**Operating Frequency:** 100 MHz ~ 7000 MHz

**RF Tuning Switch:** SP4T, Shuntless

**Flexible Control Interface**

- SPI, I<sup>2</sup>C, UART, MIPI

**Independent Switch Throws**

- Any combination (all ON, some ON, etc.) provides additional system design flexibility

**Embedded, Autonomous Control Algorithm**

**ESD Tolerance:** 2 kV Rating

**Small Package**

- Total package size is 3.0 x 3.0 x 0.75 mm<sup>3</sup>
- Package type is QFN 24-pin

### END USER ADVANTAGES

- Wider bandwidth
- Broader coverage
- Longer range
- More reliable connections
- Simple end equipment installation—reduced support/service calls
- Lower system power consumption — longer battery life, simplifies thermal design

### SERVICE AND SUPPORT

**Extensive RF Experience**

- EC482 is supported by tools and documentation, and when needed, by the expertise of RF engineers who have integrated hundreds of antenna and RF system designs into wireless devices.

**Global Operations & Design Support**

- Ethertronics' global operations encompass an integrated network of design centers that provide local customer support.

Preliminary—specifications subject to change and are dependent upon actual implementation.