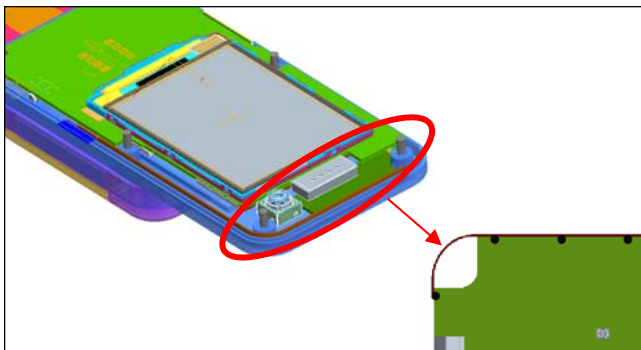


## Tavvel™ Tunable UHF Antenna Solution 474–870 MHz



Ethertronics' Tavvel series of internal, tunable UHF antennas deliver on the key needs of today's unified media product designers: high performance, small form factor and low power consumption. The UHF band antenna solution can be used for supporting standards operating between 474-870 MHz such as DVB-H, DVB-T, CMMB, etc. The antenna solution is composed of a pre-tested, small form factor, SMD antenna tuning module with an antenna element and can be customized to fit in a wide range of handsets and video products, including:

- Mobile Phones
- Notebook Computers
- Portable DVD Players
- Media Appliances
- Netbooks and Ultra Mobile PC's

### TECHNOLOGY ADVANTAGES

#### Real-World Performance and Implementation

Ethertronics' unique technology optimizes antenna size, performance and emissions to meet customer and MBRAI specifications (in case of DVB) quickly while reducing time-to-market. High performance (efficiency/gain) is achieved across the entire UHF range of frequencies. High receive performance leads to lower power consumption. Plus, high RF selectivity eliminates the cost and space for band-pass circuitry.



### KEY BENEFITS

#### DESIGN ADVANTAGES

##### Quicker Time-to-Market

- By optimizing antenna and module size and performance, customer and protocol specifications are more easily met.

##### High Receive Performance, Low Power Consumption

- Unique internal UHF antenna approach provides high receive performance and low power consumption.

##### Simplified Integration

- Single control line simplifies integration with the receiver.

##### Flexible, Internal Form Factors Support Advanced Industrial Designs

- Smaller, more efficient, internal antennas and modules break through restrictive design rules and provide new freedom in component placement.

##### Superior Range & Signal Strength

- Ethertronics' UHF antenna and module solution provides greater receive performance in an internal form factor.

##### RoHS Compliant

- Ethertronics' antennas are fully compliant with the European RoHS Directive 2002/95/EC.

### SERVICE AND SUPPORT

#### Extensive RF Experience

- Ethertronics' global applications engineering teams have extensive RF and antenna integration experience and are available to support design-in of our antenna solution into your product. Comprehensive application documentation is also available.

**PRODUCT: Internal, Tunable UHF Antenna**

**Ethertronics' Tavvel™ Internal (Embedded) UHF Antenna Specifications**  
 Ethertronics produces a wide variety of standard and custom antennas to meet user needs.  
 Below are the typical specs for a UHF application.

**Electrical Specifications**

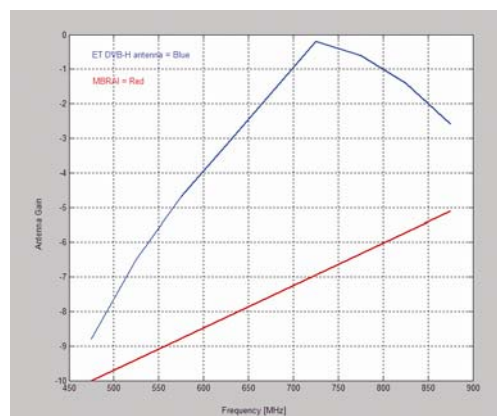
Typical Characteristics  
 (inside an enclosure)

UHF Antenna	474 to 870 MHz
Average Efficiency Through Entire Band	38%
VSWR	2.5:1 max
Feed Point Impedance	50 ohms unbalanced
Polarization	Linear
Control Voltage	0 to 2.8 V DC
Current Consumption	100 $\mu$ Amps (Max)

**Mechanical Specifications**

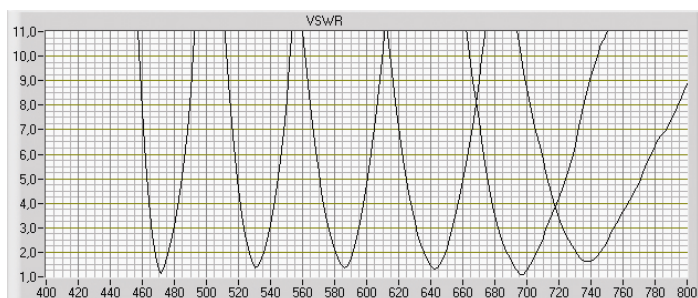
Antenna Element Size	32x8x1 mm (dimensions can vary)
Antenna Module Size	6x7x1 mm
Weight	<2 grams

**Typical Gain**



Ethertronics' UHF antenna gain solution performance: measured DVB-H gain compared to MBRAI specification

**Typical Tuning States**



Typical tuning states showing VSWR < 2.0:1 (all tuning states not shown)

Please contact Ethertronics for product sampling information.

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