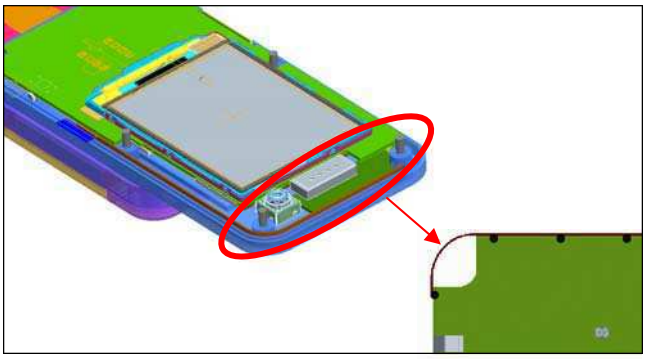
ethertronics
shaping antenna technology

PRODUCT DATA SHEET: UHF

Part No. S530101

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

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.

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.

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.

More information is available on our Website at www.ethertronics.com/resources.

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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

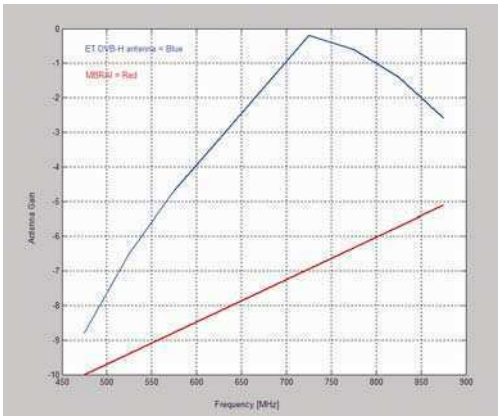
Typical Characteristics
(inside an enclosure)

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 µAmps (Max)

Mechanical Specifications

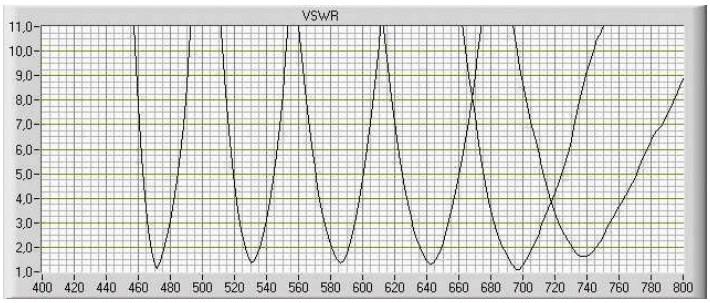
Antenna Element Size	32x8x1 mm (dimensions can vary)
Antenna Module Size	6x7x1 mm
Weight	<2 grams

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.