

Ultra Wideband (UWB) PCB Antenna with Balanced Transmission

molex

Transmission-balanced antennas offer high radiation efficiency for better performance and easy installation without the concerns of ground-plane effects

Features and Advantages

Double-sided adhesive tape on antenna

Enables easy peel-and-stick mounting anywhere within the device casing

Easy peel and stick

Enables instant application on non-metal surface

Ground plane-independent, dipole-style antenna

Offers balanced transmission throughout the entire connection regardless of cable length; reduces engineering resources and costs needed to mitigate PCB ground-induced radiation

High radiation efficiency antenna

Offers total efficiency values of 70% from 3.0GHz to 6.0GHz

Highly compact (16.40 by 7.60mm)

Offers significant space savings while supporting high performance needs

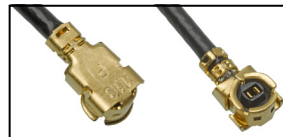
Ground plane independent and balanced dual band

Allows independent communications of vehicle directions

3 to 6 GHz
FLEXIBLE ANTENNA
(Series 146184)

Coaxial cable (50, 100, 150, 200, 250, 300mm options) to center-fed antenna with over 18N pull force

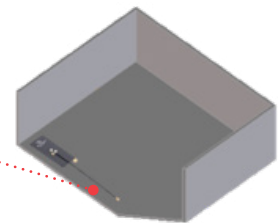
Ensures robust antenna reliability and connectivity to radio device; extends connectivity for maximum design flexibility



UFL-type Connector

Located at the tip of the antenna cable, this miniature connector mates with the application's device radio

5.8-8.5GHz
FLEXIBLE ANTENNA
(Series 211996)



Cable and connector can be customized

Provides design flexibility

Markets and Applications

Industrial applications

- Real-time location systems
- Scanners
- High-speed Data Exchanges

Medical

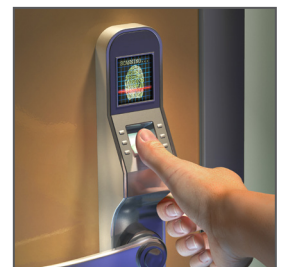
- Patient-motion monitors
- Medicine storage monitors
- Medical imaging systems
- Underwater, space or sports-medicine monitors

Automotive applications

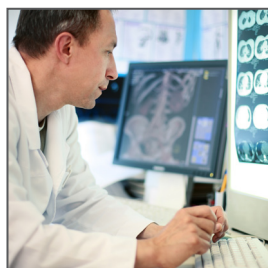
- Automatic target recognition systems

Consumer electronics (CE) applications

- Cameras
- Internet access and multimedia services
- Personal navigation devices
- Home networking and electronics



Scanners



Medical Imaging Systems



Home Networking and Electronics



Automatic Target Recognition Systems

Ultra Wideband (UWB) PCB Antenna with Balanced Transmission



Specifications

REFERENCE INFORMATION

Packaging: PET film
Mates With: Surface-mount, micro-coaxial jack
(Part Number: 73412)
Designed In: millimeters
RoHS: Yes
Halogen Free: Yes
Glow Wire Compliant: No

ELECTRICAL SPECIFICATIONS (UWB) INCLUDE:

RF Power (Watt): 2
Return Loss: < -10 dB
Average Total Radiation Efficiency (%):
Refer to Product Specifications
Peak Gain (dBi): Refer to Product Specifications
Input Impedance (ohms): 50

MECHANICAL

Pull Force: > 18 N (146184)
Pull Force: > 8 N (211996)

PHYSICAL

Thickness: 0.31mm
Operating Temperature: -30 to +85°C (146184)
-40 to +85°C (211996)

Ordering Information

Series No.	Material	Dimension	Operating Frequency (GHz)	Cable Lengths (mm)
146184	Flexi material	47.00 by 17.60	3.0 to 6.0	50, 100, 150, 200, 250, 300
211996		16.40 by 7.60 by 0.16	5.8 to 8.5	