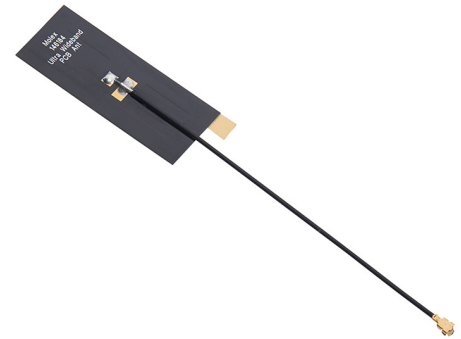


Ultra Wideband (UWB) PCB Antenna with Balanced Transmission

molex[®]

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



Features and Benefits

Balanced antenna with ground-plane-independent design	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
Double-sided adhesive tape on antenna	Enables easy peel-and-stick mounting anywhere within the device casing
Coaxial cable to center-fed antenna attachment with over 18N of pull force	Ensures robust antenna reliability and connectivity to radio device
Wide selection of micro-coaxial cable lengths from 50 to 300mm	Extends connectivity for maximum design flexibility

The Series 146184 UWB-ready dual-band antennas come in cable length options of 50, 100, 150, 200, 250 and 300mm

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

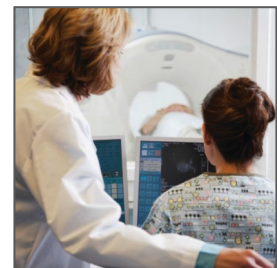
- Automatic target recognition systems

Consumer electronics (CE) applications

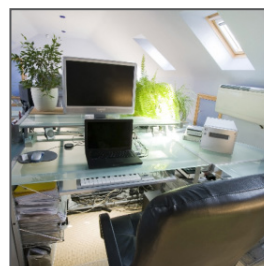
- Cameras
- Internet access and multimedia services
- Personal navigation devices
- Home networking and electronics



Scanners



Medical Imaging Systems



Home Networking and Electronics



Automatic Target Recognition Systems

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Specifications

REFERENCE INFORMATION

Packaging: PE film
Mates With: Surface-mount, micro-coaxial jack
(Part Number: 73412-0110)
Designed In: millimeters
RoHS: Yes
Halogen Free: Yes
Glow Wire Compliant: No

ELECTRICAL SPECIFICATIONS (UWB) INCLUDE:

f_start (MHz): 3000
f_end (MHz): 6000
Return Loss S11 (dB): Refer to table
Total Eff. (dB): Refer to table
Peak Gain (dBi): Refer to table
Polarization: Linear
Input Impedance (Ohms): 50

MECHANICAL

Pull Force: > 18 N

PHYSICAL

Thickness: 0.31mm
Operating Temperature: -30 to +85°C

Ordering Information

Order No.	Antenna Dimensions	Miniature Coaxial Cable Lengths (mm)	Operating Frequency Range (GHz)	Return Loss S11 (dB)	Peak Gain (dBi)	Total Radiation Efficiency (%)
146184-0050	47.00 by 17.60mm	50	3 to 6	< -6	4.7	> 74
146184-0100		100			4.5	> 70
146184-0150		150			4.3	> 66
146184-0200		200			4.0	> 62
146184-0250		250			3.8	> 58
146184-0300		300			3.5	> 55

www.molex.com/link/standard_antennas.html