Combo Antennas

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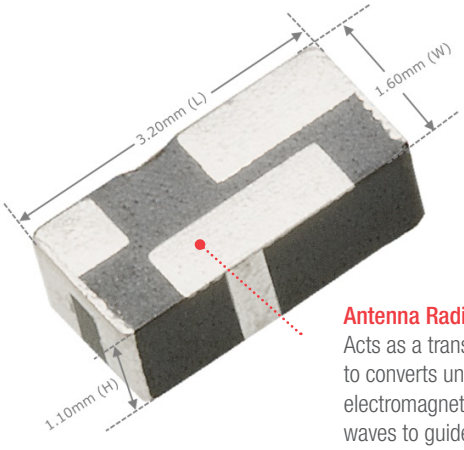
Combo antennas offer a combination of long-range connectivity, high power efficiency and easy integration advantages for IoT, GPS and M2M applications

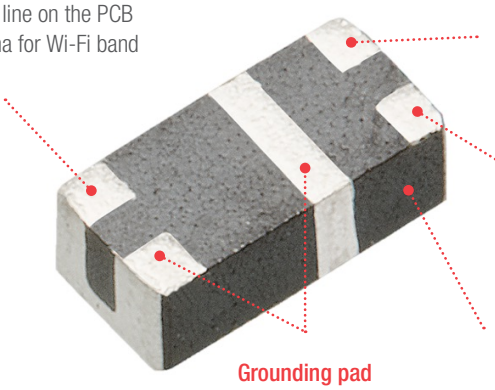
Features and Benefits



Antenna Radiator
Acts as a transducer to converts unguided electromagnetic waves to guided electromagnetic waves and vice versa

Feeding pad for GNSS band
Feeds electrical signals from the transmission line on the PCB to the antenna for Wi-Fi band irradiation

Feeding pad for the 2.4/5GHz (Wi-Fi) band
Feeds electrical signals from the transmission line on the PCB to the antenna for Wi-Fi band irradiation



Fixing pad
Firmly anchor antenna housing onto the SMT pad of the PCB

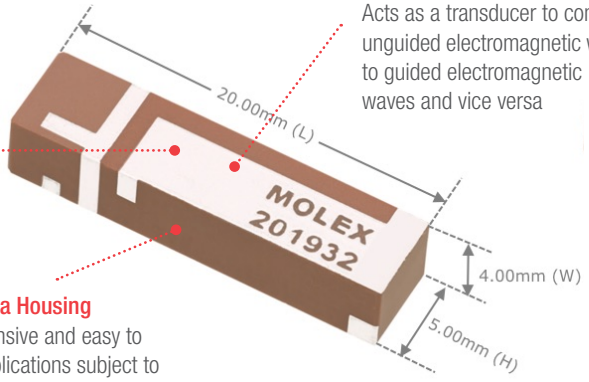
Ceramic Antenna Housing
Compact, inexpensive and easy to integrate into applications subject to high reflow temperatures

Grounding pad
Provides electrical grounding of antenna onto the application PCB

Feeding pad
Connects to the radio transceiver via a 50-Ohm transmission line on the PCB. Electrical signals from the transmission line are fed through this pad on the PCB

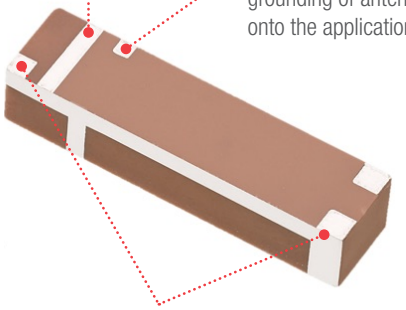
Grounding pad
Provides electrical grounding of antenna onto the application PCB

Antenna Radiator
Acts as a transducer to converts unguided electromagnetic waves to guided electromagnetic waves and vice versa



Pick-and-Place Feature
Facilitates automatic placement during assembly

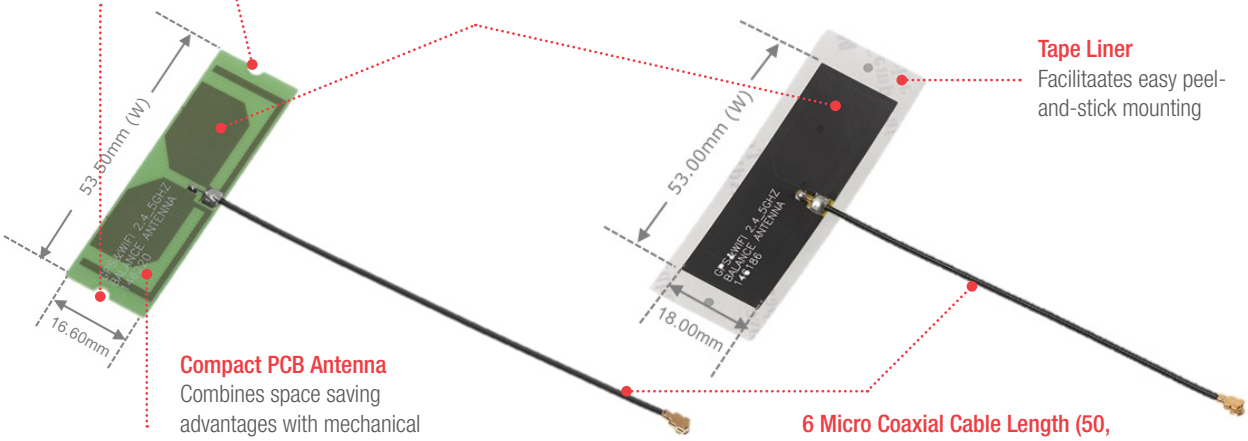
Ceramic Antenna Housing
Compact, inexpensive and easy to integrate into applications subject to high reflow temperatures



Fixing pads
Firmly anchor antenna housing onto the SMT pad of the PCB

Balanced Antenna
Offers consistent performance throughout antenna; antenna resonance not affected by cable length

Two holes on the sides of the antenna
Facilitates secure screw-nut mounting on application chassis



Tape Liner
Facilitaates easy peel-and-stick mounting

Compact PCB Antenna
Combines space saving advantages with mechanical robustness for rigid mounting

6 Micro Coaxial Cable Length (50, 100, 150, 200, 250, 300mm)
Ensures maximum design flexibility in meeting connectivity needs

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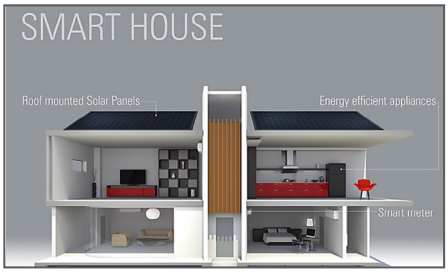
Applications

Consumer
- Smart Homes
- IoT

Automotive
- Connected Vehicle

Industrial
- Smart Cities



Smart Home


Internet of Things (IoT)

Specifications

REFERENCE INFORMATION
Packaging: PET film (146186, 146220)
Tape and Reel (201932, 203007)
Use with: Combo Wireless devices
Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes
Glow Wire Compliant: No

ELECTRICAL
Frequency Range: Refer to Product Specifications
Return Loss: Refer to Product Specifications
Average Total Radiation Efficiency(%): Refer to Product Specifications
Peak Gain (dBi): Refer to Product Specifications
Polarization: Linear
Input Impedance (ohms): 50

MECHANICAL
Refer to Product Specifications for relevant antennas

PHYSICAL
Material: Ceramic (201932, 203007)
PCB (146220)
Flexible Material (146186)
Plating: Silver (Ag) 11±4microns (201932, 203007)
Operating Temperature:
-40 to 125°C (203007, 201932)
-30 to 85°C (146220, 146186)

Ordering Information

Series No.	Substrate	Mounting	Dimensions (mm)
203007	Ceramic	SMT	3.20(L) by 1.60(W) by 1.10(H)
201932	Ceramic	SMT	20.00(L) by 4.00(W) by 5.00(H)
146220	PCB	Screw Nut	53.50 by 16.60
146186	Flexible Material	Peel-and-Stick	53.00 by 18.00

www.molex.com/link/standard_antennas.html