

Combo Antennas



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

Features and Advantages

Pick-and-Place Feature

Facilitates automatic placement during assembly

Antenna Radiator

Acts as a transducer to convert unguided electromagnetic waves to guided electromagnetic waves and vice versa

Feeding pad

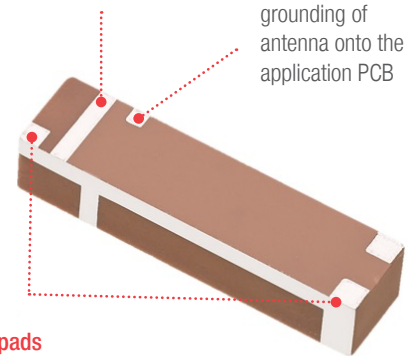
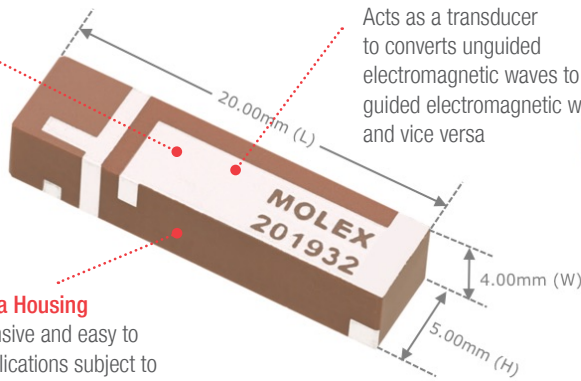
Connects to the radio transceiver via a 50-Ohm transmission line on the PCB. Electrical signals from the transmission line are fed through this pad on the PCB

Grounding pad

Provides electrical grounding of antenna onto the application PCB

Ceramic Antenna Housing

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



Balanced Antenna

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

Fixing pads

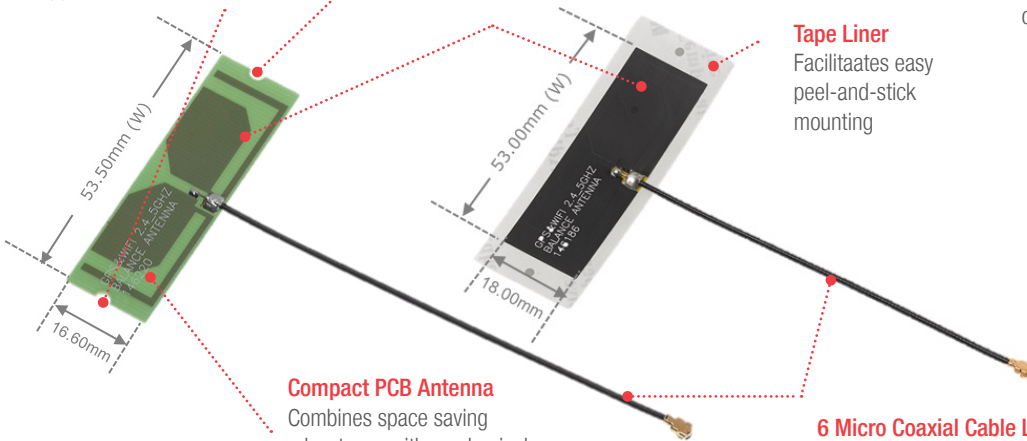
Firmly anchor antenna housing onto the SMT pad of the PCB

Two holes on the sides of the antenna

Facilitates secure screw-nut mounting on application chassis

Tape Liner

Facilitates 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

Double-sided 3M adhesive

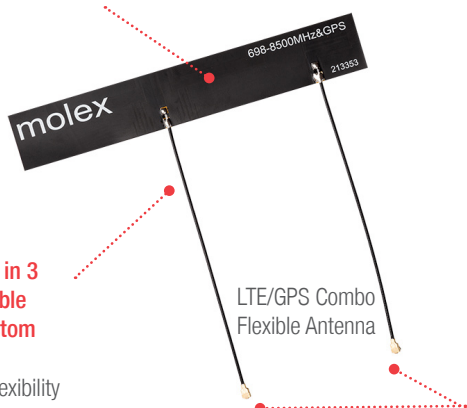
Enables easy "peel and stick" mounting

698 to 8500MHz frequency range in 3 micro coaxial cable lengths with custom options

Provides design flexibility

UFL-type connector

Secures to the application's device radio



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Applications

Consumer

Smart Homes

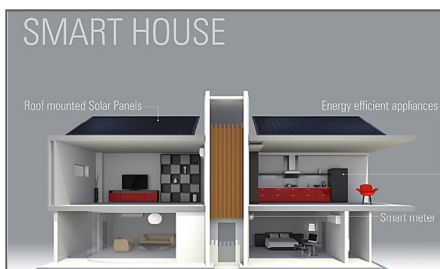
IoT

Automotive

Connected Vehicle

Industrial

Smart Cities



Smart Home



Internet of Things (IoT)

Specifications

REFERENCE INFORMATION

Packaging: PET film (146186, 146220)

Tape and Reel (201932, 213353)

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)

PCB (146220)

Flexible Material (146186, 213353)

Plating: Silver (Ag) 11±4microns (201932)

Operating Temperature:

-40 to 125°C (201932)

-30 to 85°C (146220, 146186)

-40 to 85°C (213353)

Ordering Information

Series No.	Substrate	Mounting	Dimensions (mm)
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
213353	Flexible Material	Peel-and-Stick	120.00 by 20.00

www.molex.com/link/standard_antennas.html

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