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 Advantages

Pick-and-Place Feature
Facilitates automatic placement during assembly

Antenna Radiator
Acts as a transducer to converts 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
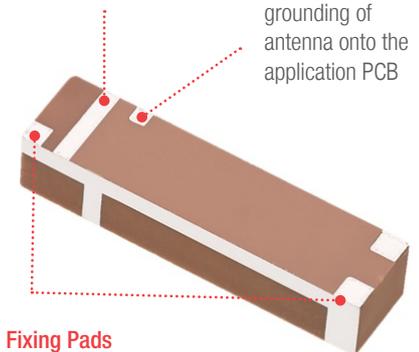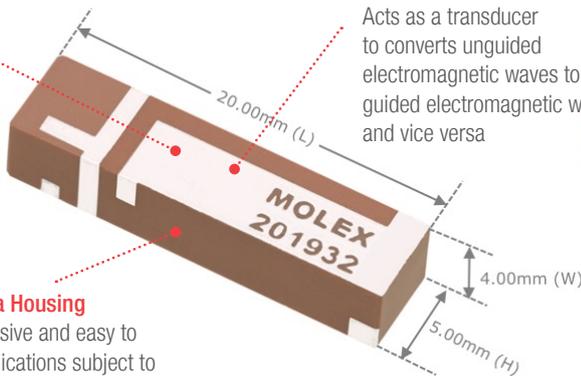
Grounding Pad
Provides electrical grounding of antenna onto the application PCB

2.4/5GHz/900MHz Triple-band Ceramic Antenna (series 201932)

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

20.00mm (L)
4.00mm (W)
5.00mm (H)

MOLEX 201932

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

53.50mm (W)
16.60mm
53.00mm (W)
18.00mm

Wi-Fi 6E+GNSS Flex Cabled Balanced Antenna (series 146186)

Wi-Fi 6E+GNSS PCB Cabled Balanced Antenna (series 146220)
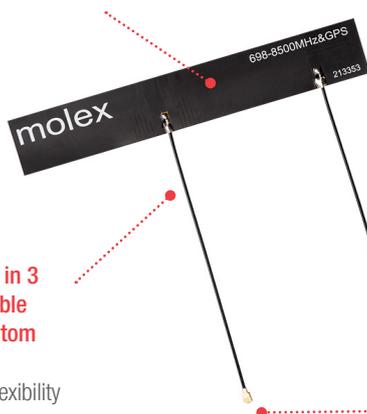
Compact PCB Antenna
Combines space saving advantages with mechanical robustness for rigid mounting

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

698-8500MHz&GPS
213353
molex

LTE+GNSS Combo FPC Cabled Antenna (series 213353)

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

Combo Antennas

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)	Standard
201932	Ceramic	SMT	20.00(L) by 4.00(W) by 5.00(H)	Wi-Fi 4/5/6 + ISM900
146220	PCB	Screw Nut	53.50 by 16.60	Wi-Fi 4/5/6/6E + GNSS
146186	Flexible Material	Peel-and-Stick	53.00 by 18.00	Wi-Fi 4/5/6/6E + GNSS
213353	Flexible Material	Peel-and-Stick	120.00 by 20.00	LTE + GNSS

www.molex.com/link/standard_antennas.html