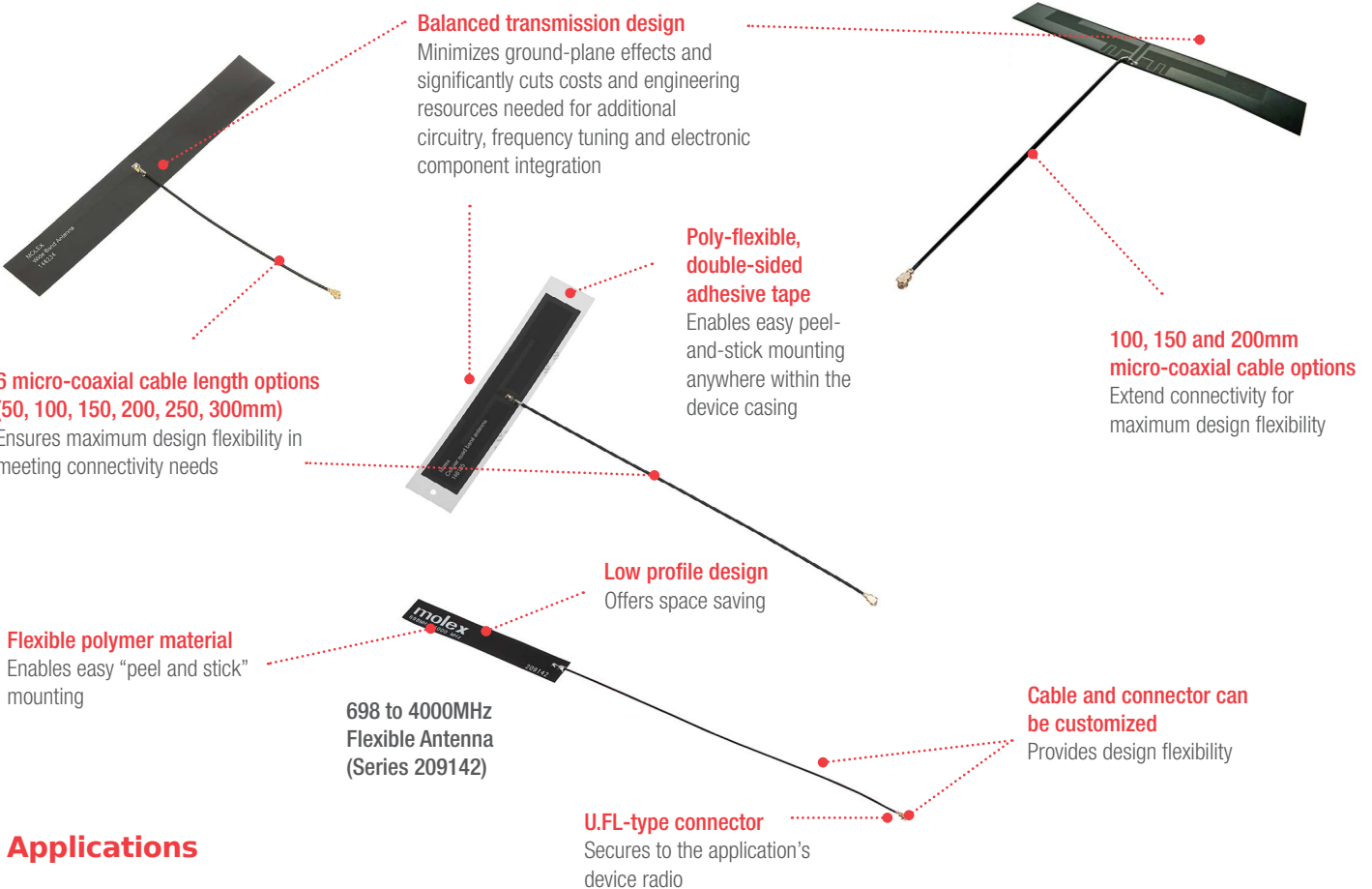


# Cellular Flexible Antennas



Wide-band antenna future-proofs wireless application developments to support evolving LTE and 4G cellular technologies

## Features and Advantages



## Applications

### Telecommunications/Networking

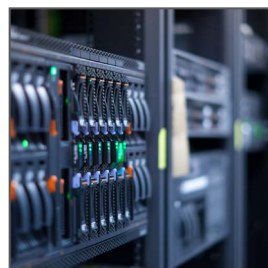
Infrastructure/Networking

### Industrial Automation

- Smart grid concentrators
- Smart meters
- Home energy displays
- Remote sensors
- Alarm and monitoring systems

### Consumer

- Home entertainment
- Home office



Networking Servers



Alarm and Monitoring Systems



Home Entertainment Systems

## Specifications

Wide-band 698 to 960 MHz / 1.5 to 2.7 and 2.7 to 6 GHz Flexible Antenna 146234

### REFERENCE INFORMATION

- Packaging: PET film
- Reference Platform (Ground size): 120 by 120 mm PCB
- Designed In: Millimeters
- RoHS: Yes
- Halogen Free: Yes
- Ground clearance: Refer to Application Specification

### ELECTRICAL

- Voltage (Watt): 2
- Return Loss - S11(dB): <-4 (698 to 960MHz); <-5 (1.5 to 2.7 and 2.7 to 6 GHz)
- Average Total Radiation Efficiency(%): Refer to Product Specification as these vary with cable lengths for each of the 3 bands
- Peak Gain (dBi): Refer to Product Specification
- Polarization: Linear
- Input Impedance (Ohms): 50

### MECHANICAL

- Pull Force: >8N min.

### PHYSICAL

- Thickness: 0.10mm (Flexible Material)
- Operating Temperature: -30 to 85°C

## Specifications

### *Cellular Quad-band Flexible Antenna, Series 146185*

#### **REFERENCE INFORMATION**

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

#### **ELECTRICAL**

Voltage (Watt): 2  
Return Loss - S11(dB): <-4  
Average Total Radiation Efficiency(%): >60  
(824 to 960 MHz); >65 (1.7 to 2.7 GHz)  
Peak Gain (dBi): 1.4 (824 to 960 MHz); 3.0  
(1.7 to 2.7 GHz)  
Polarization: Linear  
Input Impedance (Ohms): 50

#### **MECHANICAL**

Cable Pull Test: 8.0N min.

#### **PHYSICAL**

Thickness: 0.10mm (Flexible Material)  
Operating Temperature: -30 to 85°C

### *Multi(6)-Band Flexible Antenna, Series 105263*

#### **REFERENCE INFORMATION**

Packaging: Tray  
Mates With: Micro-coaxial SMT Jack  
(Part Number: 73412-0110)  
Use In: Any device that requires a compact and  
balanced transmission antenna  
Designed In: mm  
RoHS: Yes  
Halogen Free: Yes  
Glow Wire Capable: No

#### **ELECTRICAL**

Voltage (Watt): 2  
Return Loss - S11(dB): <-6  
Average Total Radiation Efficiency(%): >66  
(824 to 960 MHz); >60 (1.71 to 2.70 GHz)  
Peak Gain (dBi): 2.3 (824 to 960 MHz); 3.1  
(1.7 to 2.7 GHz)

#### **MECHANICAL**

Cable Pull Force: 5.0N min.

#### **PHYSICAL**

Contact: Micro coaxial (<2.5mm mating height)  
PCB Thickness: 0.10mm  
Operating Temperature: -40 to 85°C

### *824 to 960 / 1710 to 2170 MHz Cellular Flexible Antenna, Series 207235*

#### **REFERENCE INFORMATION**

Packaging: PET film  
Use In: Any device that requires a compact and  
balanced transmission antenna  
Designed In: mm  
RoHS: Yes  
Halogen Free: No  
Glow Wire Capable: No

#### **ELECTRICAL**

Voltage (Watt): 2  
Return Loss - S11(dB): Refer to Product  
Specification as these vary with cable lengths for  
each band  
Average Total Radiation Efficiency(%): Refer to  
Product Specification  
Peak Gain (dBi): Refer to Product Specification

#### **MECHANICAL**

Cable Pull Force: 8.0N min.  
Un-mating force (min.): 8N (initial), 5N (after 30 cycles)

#### **PHYSICAL**

Cable Outer Diameter (mm): 1.13  
Operating Temperature: -40 to 85°C

### *600 to 960 / 1500 to 3000 / 3000 to 6000 MHz Flexible Antenna, Series 207901*

#### **REFERENCE INFORMATION**

Packaging: PET film  
Reference Platform (Ground Size):  
140 by 25 mm PCB  
Designed In: mm  
RoHS: Yes  
Halogen Free: No  
Glow Wire Capable: No

#### **ELECTRICAL**

Voltage (Watt): 2  
Return Loss - S11(dB): <5dB  
Average Total Radiation Efficiency(%): Refer to  
Product Specification  
Peak Gain (dBi): Refer to Product Specification

#### **MECHANICAL**

Cable Pull Force: 8.0N min.  
Un-mating force (min.): 8N (initial), 5N  
(after 30 cycles)

#### **PHYSICAL**

Cable Outer Diameter (mm): 1.13  
Operating Temperature: -40 to 85°C

### *698 to 4000MHz Flexible Antenna, Series 209142*

#### **REFERENCE INFORMATION**

Packaging: PET film  
Use In: Any device that requires a compact and  
balanced transmission antenna  
Designed In: mm  
RoHS: Yes  
Halogen Free: No  
Glow Wire Capable: No

#### **ELECTRICAL**

Voltage (Watt): 2  
Return Loss - S11(dB): <-10 (698 to 960 MHz);  
<-5 (1.71 to 2.70 and 2.70 to 3.80 MHz)  
Average Total Radiation Efficiency(%): >45  
(698 to 960 MHz); >55 (1.71 to 2.70 MHz and  
3.30 to 3.80 MHz)  
Peak Gain (dBi): 1.20 (698 to 960 MHz); 5.20 (1.70  
to 2.70 MHz) 2.70 (3.30 to 3.80MHz)

#### **MECHANICAL**

Pull Force: >8N min.  
Un-mating force (min.): 0.5 kgf

#### **PHYSICAL**

Cable Outer Diameter (mm): 1.13  
Operating Temperature: -40 to 85°C

# Cellular Flexible Antennas



## Ordering Information

| Series No.             | Description                         | Frequency Bands                                   | Dimension (mm)          |
|------------------------|-------------------------------------|---|-------------------------|
| <a href="#">146234</a> | Wide-band Cellular Flexible Antenna | 698 to 960 MHz / 1.5 to 6 and 2.7 to 6 GHz        | 140.00 by 20.00 by 0.10 |
| <a href="#">146185</a> | Cellular Quad-band Flexible Antenna | 824 to 960 MHz;<br>1.71 to 2.7 GHz and 3 to 6 GHz | 84.00 by 15.00 by 0.10  |
| <a href="#">105263</a> | Multi(6)-band Flexible Antenna      | 824 to 960 MHz;<br>1.71 to 2.7 GHz                | 106.60 by 13.00 by 0.10 |
| <a href="#">207235</a> | Cellular Flexible Antenna           | 824 to 960MHz; 1.71 to 2.17GHz                    | 40.40 by 15.40 by 0.10  |
| <a href="#">207901</a> | Flexible Antenna                    | 600 to 960MHz; 1.50 to 3GHz; 3 to 6GHz            | 147.00 by 25.00 by 0.16 |
| <a href="#">209142</a> | Flexible Antenna                    | 698 to 960MHz; 1710 to 2690MHz; 3300 to 4000MHz   | 85.00 by 14.50 by 0.10  |

[www.molex.com/link/standard\\_antennas.html](http://www.molex.com/link/standard_antennas.html)

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