



# Ready to Use External Antennas

**molex**

## **Bluetooth/Wi-Fi Flexible**

215868 2.4/5.8 GHz On-metal Antenna  
215872 2.4/5/6 GHz Mini-Link Tri-band Antenna  
212860 2.4/5 GHz Dual Band Hinged Antenna  
214415 2.4 GHz Single Band Hinged Antenna  
214386 2.4/5 GHz Dual Band U.FL Antenna  
214428 5.0 GHz Single Band U.FL Antenna  
214394 2.4/5 GHz 2x2 MIMO Antenna  
214389 2.4/5 GHz High-Gain Antenna

## **ISM/DSRC Antennas**

214414 5.8-6 GHz Hinged Antenna  
214390 5.8-6 GHz High-Gain Antenna  
214048 5.8-6 GHz 2x2 MIMO Antenna  
216196 868/915 MHz LoRa Antenna

## **GNSS Antennas**

213499 1561/1575/1602 MHz Magnetic Mount GNSS Antenna

## **Cellular Antennas**

213523 LTE Hinged Antenna  
214429 5G Hinged Antenna

## **Combo Antennas**

211297 2-in-1 4G/GPS Antenna  
206866 3-in-1 (4G/Wi-Fi/GPS) Antenna  
213500 LTE/GPS Screw Mount Antenna  
216589 2.4/5/6GHz and 1575MHz Multi-Hub 5-in-1 Antenna

# Bluetooth/Wi-Fi External Antennas



## BLUETOOTH/WI-FI EXTERNAL ANTENNAS

Series	215868	215872	212860	214415	214386	214428	214394	214389
Key features	Low profile, excellent performance on metal surface	Small size antenna with excellent performance	General market product with good performance, flexibility and robustness				2x2 MIMO	High gain, firm structure for outdoor applications
Size (mm)	44.00 by 37.00 by 8.50	35.00 or 30.00 by 8.00	108.40 by 9.35		104.00 by 9.40		77.00 by 15.00	275.00 by 23.00
Form factor	Low brick	Short stick	Whip-hinged	Whip-hinged	Whip-hinged-cable	Whip-hinged-cable	Hockey ball	Glass fiber reinforce plastic
Frequency (GHz)	2.4 / 5.8	2.4 to 2.5 5.0 to 5.9 5.9 to 7.0	2.4 / 5.0	2.4	2.4 / 5.0	5	2.4 / 5.0	2.4 / 5.0
Return Loss	<-6	<-10 / <-5 / <-3	<-10	<-10	<-10	<-8	<-10	<-10
Peak gain (dBi)	1.8 / 5.5	3.4 / 6.0 / 4.5	5.3 / 4.5	5.3	5.2 / 3.3	3.1	Port 1: 2.5 / 2.6 Port 2: 3.1 / 3.4	5.0 / 6.0
Efficiency	>50% >45%	>60% >60% >45%	>80% >75%	>80%	>80% >65%	>75%	>65% >47.5%	>85% >80%
Product image								

## ISM/DSRC EXTERNAL ANTENNAS

Series	214414	214390	214048	216196
Key features	General market product with good performance, flexibility and robustness	High gain, firm structure for outdoor applications	2x2 MIMO	General market product with good performance, flexibility and robustness
Size (mm)	108.40 by 9.35	275.00 by 23.00	75.00 by 14.90	13.00 by 196.00
Form factor	Whip-hinged	Glass fiber-reinforce plastic	Hockey ball	Whip-hinged
Frequency (GHz)	5.9	5.9	5.9	866±10MHz / 915±10MHz
Return Loss	<-10	<-8	<-10	<-15 / <-8
Peak gain (dBi)	3.9	8.4	0.555555556	2.5 / 1.7
Efficiency	>75%	>75%	>10% (with cable loss)	>75% / >70%
Product image				

GNSS EXTERNAL ANTENNAS	
Series	213499
Key features	Active antenna with amplifier circuit
Size (mm)	55.00 by 47.00 by 16.70 (with 3.0m long cable)
Form factor	Small brick
Frequency (MHz)	1561.098±2.046 / 1575.42±1.023 / 1602±4
Return Loss	<-10
Peak gain (dBi)	28.0±3.0
Efficiency	>20% / >30% / >25%
Product image	

# Cellular External Antennas



## CELLULAR EXTERNAL ANTENNAS

Series	213523	214429
Key features	General market product with good performance, flexibility and robustness. Wide LTE bands.	General market product with good performance, flexibility and robustness. Wide 5G/LTE bands.
Size (mm)	171.50 by 19.40 mm (Straight mode)	171.50 by 19.40 mm (Straight mode)
Form factor	Bar-hinged	Bar-hinged
Frequency	698 to 960MHz / 1710 to 2690MHz	698 to 960MHz / 1.5 to 3GHz / 3 to 5GHz
Return Loss	<-5 / <-10	<-5 / <-10 / <-5
Peak gain (dBi)	2.3 / 4.8	1.6 / 5.5 / 3.6
Efficiency	>55% / >70%	>55% / >70% / >60% / >55%
Product image		

# Combo External Antennas



## COMBO EXTERNAL ANTENNAS

Series	211297	206866	213500	216589
Key features	2-in-1 antenna including LTE and GPS, adhesive mount	3-in-1 antenna including LTE, Wi-Fi and GPS, adhesive mount	2-in-1 antenna including LTE and GPS, Screw nut mount	5-in-1 antenna including 5G 2*2 MIMO, Wi-Fi 2*2 MIMO and GPS
Size (mm)	77.00 by 15.00	77.00 by 15.00	75.00 by 14.90	155.00 by 65.00 by 20.00
Form factor	Hockey ball	Hockey ball	Hockey ball, Screw-nut	Brick
Frequency (GHz)	Cellular: 824 to 960MHz /1710 to 2690MHz GPS: 1575.42±1.023MHz	Cellular: 824 to 960MHz /1710 to 2690MHz GPS: 1575.42±1.023MHz Wi-Fi: 2.4GHz	Cellular: 824 to 960MHz /1710 to 2690MHz GPS: 1575.42±1.023MHz	Cellular: 698 to 960MHz /1710 to 5000MHz GPS: 1575.42±1.023MHz Wi-Fi: 2.4/5.8GHz
Return Loss	<-8 / -10	< -6 / < -10	<-5 / <-10	<-5 dB
Peak gain (dBi)	-0.8 @824MHz, -2.1 @1561MHz, -2.1 @1575MHz, 0.4 @1710MHz	-0.5 @824MHz, -2.7 @2.4GHz, 0 @1710MHz, 3.0 @1575MHz	0.77 @824MHz, 3.73 @1710MHz	2.0 to 3.9 @Cellular 3.3 to 3.4 @Wi-Fi 0 to 1.2 @GPS
Efficiency	22.1% @1575MHz, 22.3% @1561MHz, 26.8% @1710MHz, 33.6% @824MHz	21.6% @824MHz, 23.3% @2.4GHz, 26.2% @1575MHz, 27.2% @1710MHz	55% @824MHz, 60% @1710MHz	40% to 65% @Cellular 50% to 60% @Wi-Fi 45% to 50% @GPS
Product Image				

[www.molex.com/cm/readytouseantenna.html](http://www.molex.com/cm/readytouseantenna.html)

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