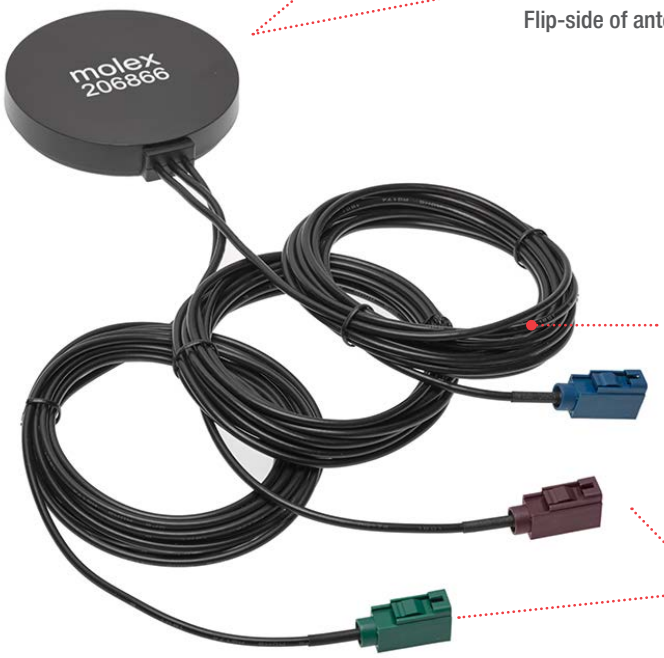
3-in-1 (4G/Wi-Fi/GPS) External Antennas

molex

Fully balanced, IP66-rated antenna offers high 4G, Wi-Fi and GPS signal performance in telematics, remote monitoring and other applications

Features and Advantages

Compact, waterproof 3-in-1 External Antenna (Diameter: 77.00mm; Height: 15.00mm)
Enables space-efficiency and easy integration into applications requiring IP66 protection





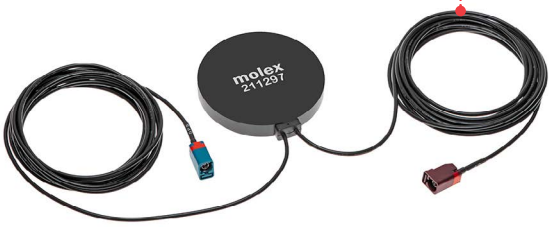
Flip-side of antenna housing

3.0m cables
Extend connectivity between the antenna and the application's 3 radio devices for their respective 4G, Wi-Fi and GPS operations

Cable connectors
Allow customization with other connectors including SMA, MMCX and more

Compact, waterproof 3-in-1 External Antenna (Diameter: 77mm; Height: 15mm)
Enables space-efficiency and easy integration into applications requiring IP66 protection

3.0m cables
Extend connectivity between the antenna and the application's 2 radio devices for their respective 4G and GPS/BD operations



Cable Connectors
Allow customization with other connectors including SMA, MMCX and more

FAKRA Connectors (Blue: GPS/BD, FAKRA Model C; Purple: 4G, FAKRA Model D)
Positions and fixes the antenna to the PCB (via soldering); provides electrical contact between antenna and board



FAKRA Connectors (Blue: GPS, FAKRA Model C; Purple: 4G, FAKRA Model D; Green: Wi-Fi, FAKRA Model E)

Applications

Automotive and Commercial Vehicles

- Remote monitoring
- Navigation devices
- Fleet management systems that require high-speed data requirements



Automotive



Fleet Management Systems for Commercial Vehicles

3-in-1 (4G/Wi-Fi/GPS) External Antennas

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Specifications

REFERENCE INFORMATION
Packaging: Box
Use With: FAKRA connectors (Model C/D/E) for series 206866 and (Model C/D) for series 211297
Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes
Glow Wire Compliant: No

ELECTRICAL (GPS ANTENNA)
Frequency Range: 1,575.42±1.023 MHz for series 206866 and 1561.098±2.046 MHz, 1,575.42±1.023 MHz for series 211297
Average Total Efficiency: 26.2% for series 206866 and 22.3% (1561.098±2.046 MHz), 22.1% (1,575.42±1.023 MHz) for series 211297
Peak Gain: 3dBi based on 70 by 70mm ground plane (206866) and -2.1dBi based on 70 by 70mm ground plane (211297)
Polarization: RHCP

ELECTRICAL (GPS LNA)
Frequency Range: 1,575.42±1.023 MHz
DC Voltage: 3 to 5V (206866) and 3V (211297)
DC Current: 11±3mA (at 3.3V)
Noise Figure: ≤1.5 dB
Gain: 28±3 dB (206866) and 25±3 dB (211297)

ELECTRICAL (4G ANTENNA)
Frequency Range: 824 to 960 MHz, 1.71 to 2.60 GHz for series 206866 and 211297
Average Total Efficiency: 21.6% (824 to 960 MHz), 27.2% (1.71 to 2.60 GHz) for series 206866 and 33.6% (824 to 960 MHz), 26.8% (1.71 to 2.60 GHz) for series 211297
Peak Gain: -0.5 dBi type (824 to 960 MHz), 0 dBi type (1.71 to 2.60 GHz) for series 206866 and -0.8dBi type (824 to 960 MHz), 0.4 dBi type (1.71 to 2.60 GHz) for series 211297
Polarization: Linear

ELECTRICAL (WI-FI AND BLUETOOTH ANTENNA) (206866)
Frequency Range: 2.4 to 2.5 GHz
Average Total Efficiency: 23.3%
Peak Gain: -2.7 dBi
Polarization: Linear

MECHANICAL
Pull Force: ≥15N

PHYSICAL
Housing: ABS
IP Rating: IP66
PCB: FR4
Shielding Case: Tin plate
Cable: RG174
Adhesive: 3M
Operating Temperature: -40 to +85°C

Ordering Information

Series No.	Operating Frequencies	Cable Length	Cable Connectors
206866	GPS:1575.42 ± 1.023 MHz 4G:824 to 960 MHz, 1.71 to 2.60 GHz Wi-Fi: 2.4 to 2.5 GHz	3.0m	FAKRA (Model C/D/E)
211297	GPS: 1561.098±2.046 MHz 1575.42 ± 1.023 MHz 4G:824 to 960 MHz 1.71 to 2.60 GHz	3.0m	FAKRA (Model C/D)

Custom Product	Cable Connectors
Contact Molex	SMA, MMCX and others

www.molex.com/link/external_antennas.html

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Order No. 987651-8702 Rev. 1 APS/0k/GF/2019.02
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