

# Vehicle Antennas

• JEBSEE •

## AN8230

### 9-in-1 Combination External Antenna



**4x4 MIMO 5G NR/4GLTE Full band + V2X  
4x4 MIMO 2.4-5.0-6.0GHz/Wi-Fi 7/BT/ISM + V2X  
GPS/GLONASS/QZSS/Galileo/IRNSS/L1L5**

#### Features

- **Advanced Multi-Element Design**

Incorporates up to nine elements, supporting 5G/4G LTE MIMO, Wi-Fi 7, and an optional GNSS antenna with a 28dB gain LNA for enhanced connectivity.

- **Ground Plane Independence**

Designed to operate without a metallic ground plane, ensuring optimal performance on any surface, including non-metallic ones.

- **Rugged and Low-Profile**

Durable low-profile radome resists damage from environmental factors, ideal for high-speed vehicles and demanding conditions.

#### Application

- **Fire and Rescue Services**

Supports reliable 5G/4G LTE and GNSS connectivity for mission-critical communication and navigation during emergency response.

- **Public Transportation**

Enhances vehicle connectivity for public buses, ensuring stable internet access and GPS tracking for improved fleet management.

Item	Model No.	AN8230			
<b>Antennas 1-4</b>		<b>4x4 MIMO 5G NR/4GLTE Full band + V2X</b>			
Frequency Range	MHz	617-960	1427-2690	3300-5000	5150-5925
Peak Gain	dBi	1.4	3.0	3.3	2.0
Efficiency	%	45 typ.	50 typ.	50 typ.	45 typ.
Output VSWR	:1	3.0 max.	2.0 max.	2.0 max.	2.0 max.
Polarization			Linear		
Radiation Pattern			Omni-Directional		
Cable			RTK031, 3000mm*4 (Any Cable Length Available)		
Connector			FAKRA-Female (Code D) *4 (Other Connectors Available)		
<b>Antennas 5-8</b>		<b>4x4 MIMO 2.4-5.0-6.0GHz/Wi-Fi 7/BT/ISM + V2X</b>			
Frequency Range	MHz	2410-2490	4920-5925	5925-7125	
Peak Gain	dBi	3.2	3.6	3.5	
Efficiency	%	50 typ.	50 typ.	45 typ.	
Output VSWR	:1	2.0 max.	2.0 max.	2.0 max.	
Polarization			Linear		
Radiation Pattern			Omni-Directional		
Cable			RTK031, 3000mm*4 (Any Cable Length Available)		
Connector			FAKRA-Female (Code H)*4 (Other Connectors Available)		
<b>Antenna 9</b>		<b>GPS/GLONASS/QZSS/Galileo/IRNSS/L1L5</b>			
Frequency Range	MHz	1164 – 1188		1559 – 1606	
Gain at Zenith	dBi	2.96		4.01	
Axial Ratio	dB	0.27 – 1.50		1.1.0 – 1.80	
Polarization		RHCP		RHCP	
Radiation Pattern		Hemispherical		Hemispherical	
LNA Gain	dB	28.0 ± 3.0		28.0 ± 3.0	
Noise Figure	dB	3.0 max.		3.0 max.	
Output VSWR	:1	2.0 max.		2.0 max.	
Out-of-Band Rejection	dB		65 typ.		
Saw Filter Type			Pre-Filter		
Current Consumption	mA		20 max. @3.0 - 5.5V		
Cable			RG-174/U, 3000mm (Any Cable Length Available)		
Connector			FAKRA-Female (Code C) (Other Connectors Available)		
Mounting			<b>Mechanical</b>		
IP Rating			Screw		
Dimensions			IP67		
			160(Ø) x 67(H) mm		