



# ntroduction

2J is a worldwide supplier of antenna solutions casting our net over Automotive, Marine, Telematic, Automation and M2M markets.

With our two RF development sites in the UK and Slovakia, we have developed a reputation for engineering excellence and self-sufficiency, allowing us to provide rapid custom antenna solutions, supplementing our extensive range of off-the-shelf antenna.

We utilise a plethora of modern engineering tools, from network analysers and anechoic chambers, to simulation software and 3D printers. These tools help reduce design phases, and enable us to react to our customers' needs promptly and efficiently.

Our ISO/TS16949:2009 certified production site in Central Europe ensures production of the highest quality products. Our antennas are all manufactured under the RoHS directive and are REACH compliant. Plastic injection, SMD pick and place, product assembly and quality control are all carried out in house, aiding us to be flexible in manufacturing and provide competitively priced products.

Our close-knit team of engineers and commercial personnel have established strong bonds with customers and suppliers, ensuring a good communication of needs, requirements and solutions.

Ensuring the continued development of products to meet the rapidly evolving wireless world remains our primary focus, be it for 4G (LTE), Iridium communications or Galileo satellite based applications. We work closely with technological innovators to ensure that we have a clear vision for future projects, maintaining our strong position in commercial antenna design.



Customisation



RF measurement



3D anechoic chambers



**EM Simulations** 



Prototyping service



3D printing



Plastic injection



Coaxial cable assembly





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**Note:** Cable types, lengths, connector types and housing colour upon request.



## The Guidelines for antenna samples and mounting possibilities I



"O" Means, that antenna is made undetachable.

2J90xx (without additional suffix)

It means, that antenna is built with bracket and has connector inside





**2J**90xxA (with additional suffix A) —

It means, that antenna is built without bracket and has connector inside

— 2J90xxC (with additional suffix €)

It means, that antenna is built with bracket and has solid cable inside





**2J**90xxAC (with additional suffixes AC) —

It means, that antenna is built without bracket and has solid cable inside

# 2J91xxXXX series

"I" Means, that antenna is made detachable and self configurable according to your needs or each version can be sold separately. A cable exits from the center of the antenna.



It means, that antenna is built with bracket and has solid cable inside. Antenna can be detached to versions A, AB, B and P (marked as 2J93xxP). All components needed for these four versions of antenna are included.



### **2J**91xxAB (with additional suffixes AB) —

It means, that antenna is built without bracket and has solid cable inside.

Antenna can be detached to versions A or B.

All components needed for these two versions of antenna are included.



It means, that antenna is built without bracket and has solid cable inside Antenna can be detached, but it does not include any components for making other versions of the antenna.



### **2J**91xxB (with additional suffix B) —

It means, that antenna is built without bracket and has solid cable inside.

Antenna can not be detached, and it does not include any components
for making other versions of the antenna.



It means, that antenna is built without bracket and has solid cable inside Antenna can not be detached, and it does not include any components for making other versions of the antenna.

The same antenna as on page 7





### **2**J92xx series

"2" Means, that antenna is made detachable and self configurable according to your needs or each version can be sold separately. A cable exits from the side of the antenna or bracket.

### **2J**92xx (without additional suffix)

It means, that antenna is built with bracket and has solid cable inside. Antenna can be detached to versions A. AB. B (marked as 2J91xxB) and P (marked as 2J93xxP). All components needed for these four versions of antenna are included.



### **2J**92xxAB (with additional suffixes AB) —

It means, that antenna is built without bracket and has solid cable inside. Antenna can be detached to versions A or B. All components needed for these two versions of antenna are included.



It means, that antenna is built without bracket and has solid cable inside Antenna can be detached, but it does not include any components for making other versions of the antenna.



### **2J**91xxB (with additional suffix B) —

It means, that antenna is built without bracket and has solid cable inside. Antenna can not be detached, and it does not include any components for making other versions of the antenna. The same antenna as on page 5



It means, that antenna is built without bracket and has solid cable inside Antenna can not be detached, and it does not include any components for making other versions of the antenna.

The same antenna as on page 7



# 2J93xxXXX series

"3" Means, that antenna is made undetachable. Antenna has version with possibility to Magnetic mount or Patch mount, or each version can be sold separately.



It means, that antenna is built without bracket and has solid cable inside.
Antenna can be used as versions M or P.
All components needed for these two versions of antenna are included





### **2J**93xxM (with additional suffix M) —

It means, that antenna is built without bracket and has solid cable inside. Antenna does not include any components for making other versions of the antenna.

— 2J93xxP (with additional suffix P)

It means, that antenna is built without bracket and has solid cable inside.

Antenna does not include any components for making other versions of the antenna.



### Colours available for 9xxx series antenna







# **2J**9001 | **2J**9101 | **2J**9201 | **2J**9301



### Cable 1

Frequencies GPS/GLONASS (1.572-1.610 MHz) 50 Ohms Impendance Polarisation RHCP LNA Gain 23 dB at 3V, 24 dB at 5V **VSWR** < 1.2:1 Voltage supply 2.7 V - 5.5 V Current 15 mA to 25 mA Power (max.) 138 mW Note Antenna is filtered (Filter placed after amplifier)

### **General specification**

IP certificate IP67

Operating temperature -40 °C to +85 °C

Note: For dimensions check product datasheet









This antenna is available in versions:

2J9001, 2J9001A, 2J9001C, 2J9001AC 2J9101, 2J9101AB, 2J9101A, 2J9101B 2J9201, 2J9201AB, 2J9201A 2J9301MP, 2J9301M, 2J9301P

## **2J**9007 | **2J**9107 | **2J**9207 | **2J**9307



### Cable 1

Frequencies TETRA (380-500 MHz)
Impendance 50 Ohms
Polarisation Vertical
Gain 2 dBi
VSWR < 2:1

# Power handling Cable 2

**Frequencies** GPS/GLONASS (1.572-1.610 MHz)

Impendance50 OhmsPolarisationRHCP

**LNA Gain** 23 dB at 3V, 24 dB at 5V

25 W

 VSWR
 < 1.2:1</td>

 Voltage supply
 2.7 V - 5.5 V

 Current
 15 mA to 25 mA

Power (max.) 138 mW

**Note** Antenna is filtered (Filter placed after amplifier)

### **General specification**

**IP certificate** IP67

Operating temperature -40 °C to +85 °C

Note: For dimensions check product datasheet



J9007C, **2**J9007AC J9107, **2**J9107AB, **2**J9107A, **2**J9107B J9207, **2**J9207AB, **2**J9207A J9307MP, **2**J9307M, **2**J9307P









# **2J**9013 | **2J**9113 | **2J**9213 | **2J**9313



### Cable 1

Frequencies DVB-T (440-870 MHz)

Impendance 75 Ohms Polarisation Linear **LNA Gain** 25 dB **VSWR** < 3:1 Power handling 50 W Voltage supply 5 V - 24 V Current 13 mA Power (max.) 312 mW

### **General specification**

Operating temperature -40 °C to +85 °C

Note: For dimensions check product datasheet

### This antenna is available in versions:

2J9013, 2J9013A, 2J9013C, 2J9013AC 2J9113, 2J9113AB, 2J9113A, 2J9113B 2J9213, 2J9213AB, 2J9213A 2J9313MP, 2J9313M, 2J9313P

# **2J**9026 | **2J**9126 | **2J**9226 | **2J**9326



### Cable 1

**Frequencies** IRIDIUM (1.616-1.626 MHz)

Impendance50 0hmsPolarisationRHCPGain3 - 5 dBiCVSWR< 1.5:1</th>Power handling25 W

### **General specification**

IP certificate IP67

Operating temperature -40 °C to +85 °C

Note: For dimensions check product datasheet

### This antenna is available in versions:

J9026, **2**J9026A, **2**J9026C, **2**J9026AC J9126, **2**J9126AB, **2**J9126A J9226, **2**J9226AB, **2**J9226A J9326MP, **2**J9326M, **2**J9326P











# **2J**9033H | **2J**9133H | **2J**9233H | **2J**9333H





Frequencies IRIDIUM (1.616-1.626 MHz)

Impendance50 OhmsPolarisationRHCPGain3 dBiCVSWR< 1.5:1</th>

### Cable 2

**Frequencies** GPS/GLONASS (1.572-1.610 MHz)

Impendance50 OhmsNoise figure1.15 dBPolarisationRHCP

Patch Gain 3 dBiC min. at zenith
LNA Gain 23 dB at 3V, 24 dB at 5V

**VSWR** < 1.2:1 **Voltage supply** 2.7 V - 5.5 V

**Current** 15 mA to 25 mA

Power (max.) 138 mW

**Note** Antenna is filtered (Filter placed after amplifier)

### **General specification**

IP certificate IP67

**Operating temperature** -40 °C to +85 °C

Note: For dimensions check product datasheet

### This antenna is available in versions:

**2J**9033H, **2J**9033HA 9133H **2I**9133HAR **2I**9133HR

**2J**9133H, **2J**9133HAB, **2J**9133HB **2J**9233H, **2J**9233HAB, **2J**9233HA

**2J**9333HMP, **2J**9333HM, **2J**9333HP

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# **2J**9036 | **2J**9136 | **2J**9236 | **2J**9336



### Cable 1

Frequencies AIS (162 MHz)
Impendance 50 Ohms
Polarisation Vertical
VSWR < 2:1 at center

Power handling 25 W

### **General specification**

**Operating temperature** -40 °C to +85 °C

Note: For dimensions check product datasheet

This antenna is available in versions:

J9036, **2**J9036A, **2**J9036C, **2**J9036AC J9136, **2**J9136AB, **2**J9136A, **2**J9136B J9236, **2**J9236AB, **2**J9236A J9336MP, **2**J9336M, **2**J9336P











# **2J**9037 | **2J**9137 | **2J**9237 | **2J**9337



### Cable 1

Frequencies AIS (162 MHz)
Impendance 50 Ohms
Polarisation Vertical
VSWR < 2:1 at center
Power handling 25 W

### Cable 2

**Frequencies** GPS/GLONASS (1.572-1.610 MHz)

Impendance 50 Ohms
Polarisation RHCP

**LNA Gain** 23 dB at 3V, 24 dB at 5V

**VSWR** < 1.2:1 **Voltage supply** 2.7 V - 5.5 V

Current 15 mA to 25 mA

Power (max.) 138 mW

**Note** Antenna is filtered (Filter placed after amplifier)

### **General specification**

Operating temperature -40 °C to +85 °C

Note: For dimensions check product datasheet

### This antenna is available in versions:

**2J**9037C, **2J**9037AC **2J**9137, **2J**9137AB, **2J**9137A, **2J**9137B **2J**9237, **2J**9237AB, **2J**9237A

**2J**9337MP, **2J**9337M, **2J**9337P

# **2J**94xx | **2J**9454 | **2J**9438 | **2J**9430

# Omnidirectional for outdoor antenna use



# Cable 1 Frequencies DVB-T / FM Cable 2 Frequencies GPS Cable 3 Frequencies GSM Cable 4 Frequencies WIFI Cable 5 Frequencies DAB

### **General specification**

Amplifier LNA Gain

IP certificate	IP69K for antenna
Operating temperature	-25 °C to +55 °C
Dimensions	212 × 280 × 280 mm
	$(H \times W \times L)$

Variable from: -7 dB to 29 dB











2J9454 - antenna includes Cable 1 Cable 2 Cable 3 Cable 4 Cable 5
2J9438 - antenna includes Cable 1 also possible version with Amplifier

2J9430 - antenna includes Coble 1 Coble 2



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