

solutions

antennae

antennae solutions



research  
development  
production

## Introduction



2J is a rapidly expanding company within the telecommunications sector, pushing the boundaries of antennae innovation for the modern wireless world.

2J employ a range of modern design techniques including 3D modelling, computer simulations and rapid prototyping, in order to meet the requirements of the customer. On offer is a wide range of antennae for the use in GSM, GPRS, GPS, Galileo, Glonass and Telematic applications to name but a few, as well as producing an array of cable assemblies to customer specifications. Being an ISO 9001:2001 certified company, 2J manufactures high quality products at competitive prices.

Located in Slovakia, 2J is at the heart of the 'New Europe'. Slovakia is fast becoming a leading manufacturer within the European Union, especially within the automotive industry. 2J employ highly qualified workers and sub-contractors as well as selecting only reputable and reliable suppliers.

2J are currently supplying antennae solutions throughout Europe, including countries such as: UK, Republic of Ireland, France, Spain, Portugal, Netherlands, Germany, Italy, Greece, Slovakia, Czech Republic, Romania, Hungary, Russia, Latvia, Lithuania and Scandinavia. 2J is equidistant from its customers and therefore shipping costs and times are minimised.



## Research & Development

Our Highly Qualified design team utilizes the latest design methods to help produce market leading antennae in the automotive, marine, navigation and wireless network industries. Our antennae can be analysed prior to production using the latest in EM simulation, while amplifier and filter circuits can be fully designed and tested using the latest capture and SPICE simulation software. PCBs are designed to industry standards and can be exports as Gerber RS274X, DXF or Drill Files.

3D Modelling is also used for the design of antennae housing and enclosures while rapid prototyping is available thanks to a close relationship with engineering universities. This enables us to perfect plastic injections prior to the antenna going into full production.

Our test department is capable of producing in-depth antenna and system reports including radiation patterns, using our top of the range test equipment that includes Network and Spectrum Analysers.



Sample prototyping



Cnc machinery



Injection molds



Plastic injection



Cable assembly



Antenna production



Packaging



2J540



specification

mounting position	on glass
nominal impedance	50 Ohms
frequency	750 MHz to 2.4 GHz
polarization	vertical
gain	2.3 dBi
vswr	<2:1
power handling	35 W
cable type	RG58
cable length	2.5 m
connector	FME Female
housing size	59 x 111.5 mm
working temperature	-40°C – +85 °C

2J510FW - flexible



specification

mounting position	on glass
nominal impedance	50 Ohms
frequency	AMPS 824-894 MHz • GSM 900, 1800 MHz • PCN 1,9 GHz • UMTS 2,1 GHz • Bluetooth 2,4 GHz
polarization	vertical
gain	2.15 dBi
vswr	<1,5/2
power handling	25 W
cable type	RG174
cable length	2.5 m
connector	FME Female
housing size	11-15 x 123 mm
working temperature	-40°C to +85°C

2J520W - flexible



specification

mounting position	on glass
nominal impedance	50 Ohms
frequency	AMPS 824-894 MHz • GSM 900, 1800 MHz PCN 1,9GHz • UMTS 2,1GHz • Bluetooth 2,4 GHz
polarization	vertical
gain	2.15 dBi
vswr	<1,5/2
power handling	25 W
cable type	RG174
cable length	2.5 m
connector	FME Female
housing size	117 x 12 mm
working temperature	-40°C to +85°C



# patch antennas

mounting position	on glass
nominal impedance	50 Ohms
frequency	AMPS 824-894MHz • GSM 900, 1800 MHz PCN 1,9GHz • UMTS 2,1GHz • Bluetooth 2,4GHz
polarization	vertical
gain	2.15 dBi
vswr	<1,5/2
power handling	25 W
cable type	RG174
cable length	2.5 m
connector	FME Female
housing size	11- 15 x 123 mm
working temperature	-40°C to +85°C

specification



2J5110

mounting position	on glass
nominal impedance	50 Ohms
frequency	433 MHz • AMPS 824-894 MHz • GSM 900, 1800 MHz • PCN 1,9 GHz • UMTS 2,1 GHz • Bluetooth 2,4 GHz
polarization	vertical
gain	2.25 dBi
vswr	<1,5/2
power handling	25 W
cable type	RG174
cable length	2.5 m
connector	FME Female
housing size	22 x 126,5 mm
working temperature	-40°C to +85°C

specification



2J5001

mounting position	on glass
nominal impedance	50 Ohms
frequency	GSM 900, 1800 MHz • PCN 1,9 GHz • UMTS 2,1 GHz • Bluetooth 2,4 GHz
polarization	vertical
gain	0 dBi
vswr	<1,5/2
power handling	25 W
cable type	RG174
cable length	2.5 m
connector	FME Female
housing size	22 x 116,5 mm
working temperature	-40°C to +85°C

specification



2J500



2J510F - flexible



specification

mounting position	on glass
nominal impedance	50 Ohms
frequency	AMPS 824-894 MHz • GSM 900, 1800 MHz • PCN 1,9GHz • UMTS 2,1 GHz • Bluetooth 2,4 GHz
polarization	vertical
gain	2.15 dBi
vswr	<1,5/2
power handling	25 W
cable type	RG174
cable length	2.5 m
connector	FME Female
housing size	11 - 15 x 123 mm
working temperature	-40°C to +85°C

2J520 - flexible



specification

mounting position	on glass
nominal impedance	50 Ohms
frequency	AMPS 824-894 MHz • GSM 900, 1800 MHz • PCN 1.9 GHz • UMTS 2.1 GHz • Bluetooth 2.4 GHz
polarization	vertical
gain	2.15dBi
vswr	<1.5/2
power handling	25 W
cable type	RG174
cable length	2.5 m
connector	FME Female
housing size	117 x 12 mm
working temperature	-40°C to +85°C

2J530



specification

mounting position	on glass
nominal impedance	50 Ohms
frequency	AMPS 824-894 MHz • GSM 900, 1800 MHz PCN 1,9 GHz • UMTS 2,1 GHz • Bluetooth 2,4 GHz
polarization	vertical
gain	0 dBi
vswr	<1.5/2
power handling	60 W
cable type	RG58
cable length	4.25 m
connector	FME Female
housing size	52 x 13 mm
working temperature	-40°C to +85°C



# patch antennas

mounting position	on glass
nominal impedance	50 Ohms
frequency	750 MHz to 2.4 GHz
polarization	vertical
gain	2.34 dBi
vswr	<1.5/1
power handling	35 W
cable type	RG174
cable length	2.5 m
connector	FME Female
housing size	72.3 x 110 mm
working temperature	-40°C – +85 °C

specification



2J542

mounting position	on glass
nominal impedance	50 Ohms
frequency	750 MHz to 2.4 GHz
polarization	vertical
gain	2.34 dBi
vswr	<1.15/1
power handling	35 W
cable type	RG174
cable length	2.5 m
connector	FME Female
housing size	72.3 x 110 mm
working temperature	-40°C to +85°C

specification



2J542F

mounting position	on glass
nominal impedance	50 Ohms
frequency	AMPS 824-894 MHz • GSM 900, 1800 MHz • PCN 1,9 GHz • UMTS 2,1 GHz • Bluetooth 2,4 GHz
polarization	vertical
gain	0 dBi
vswr	<1.15/1
power handling	25 W
cable type	RG174
cable length	2.5 m
connector	FME Female
housing size	25 x 72 mm
working temperature	-40°C to +85°C

specification



2J550



2J550F - flexible



specification

mounting position	on glass
nominal impedance	50 Ohms
frequency	AMPS 824-894 MHz • GSM 900, 1800 MHz • PCN 1,9 GHz • UMTS 2,1 GHz • Bluetooth 2,4GHz
polarization	vertical
gain	0 dBi
vswr	<1.15/1
power handling	25 W
cable type	RG174
cable length	2.5 m
connector	FME Female
housing size	25 x 72 mm
working temperature	-40°C to +85°C

2JT1010W



specification

mounting position	on glass
application	--
nominal impedance	50 Ohms
frequency	GSM 900 / 1800 MHz • PCN 1900 MHz • UMTS 2100 MHz
polarization	vertical
gain	0 dBi
vswr	<1.5:1 in all bands
power handling	25 W
cable type	RG174
cable length	-
connector	FME Female
size	38x70x5 mm & 38x70x12 mm
working temperature	-40°C to +85°C



2JDVBT01



specification

impedance	50 Ohms
frequency	150 MHz - 240 MHz and 440 MHz - 870 MHz
vswr	<2:1
voltage	5V - 12V (5V typical)
current	25 mA at 5V
gain	150 MHz - 240 MHz = 12dB 440 MHz - 870 MHz = 15dB
working temperature	-40°C to +85°C





# gps antennas

mounting position	dash board, windscreen, any metallic surface
application	Tracking / navigation systems
nominal impedance	50 Ohms
frequency	1575.42 MHz
polarization	horizontal
gain	26 dB at 3V • 28 dB at 5V
vswr	<2:1 max
cable cellular	-
cable GPS	2.5 m RG174 standard connector SMB(f)
housing size	38 x 34 x 13.7 mm
working temperature	-40°C to +85°C

specification



2J431

mounting position	car roof
application	Tracking / navigation systems
nominal impedance	50 Ohms
frequency	1575.42 MHz
polarization	horizontal
gain	26 dB at 3V • 28 dB at 5V
vswr	<2:1 max
cable cellular	-
cable GPS	2.5 m RG174 standard connector SMB(f)
housing size	15.25 x 43.3 mm
working temperature	-40°C to +85°C

specification



2J410M - magnet

mounting position	dash board, windscreen
application	Tracking / navigation systems
nominal impedance	50 Ohms
frequency	1575.42 MHz
polarization	horizontal
gain	26 dB at 3V • 28 dB at 5V
vswr	<2:1 max
cable cellular	-
cable GPS	2.5 m RG174 standard connector SMB(f)
housing size	15.25 x 43.3 mm
working temperature	-40°C to +85°C

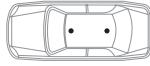
specification



2J410P



2J410B - body mount



instalation

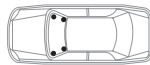


specification

mounting position	car roof
application	Tracking / navigation systems
nominal impedance	50 Ohms
frequency	1575.42 MHz
polarization	horizontal/vertical
gain	26 dBi at 3V • 28 dBi at 5V
vswr	<2:1 max
cable GPS	2.5 m RG174 standard connector SMB(f)
housing size	15.25 x 43.3 mm
working temperature	-40°C to +85°C



2J420



instalation



specification

mounting position	dash board, windscreen
application	Tracking / navigation systems
nominal impedance	50 Ohms
frequency	1575.42 MHz • GSM • PCN • DCS 1.9 GHz
polarization	vertical / horizontal
gain	26 dBi at 3V • 28 dBi at 5V
vswr	<2:1 max
cable cellular	2.5 m RG174 standard conn. FME (f)
cable GPS	2.5 m RG174 standard conn. SMB(f)
housing size	97 x 28.2 mm
working temperature	-40°C to +85°C



mounting position	car roof and other metallic surface
application	Tracking / navigation systems
nominal impedance	50 Ohms
frequency	AMPS 824-894 MHz • 1575.42 MHz GSM • PCN • DCS • 1.9 GHz
polarization	vertical / horizontal
gain	26 dBi at 3V • 28 dBi at 5V
vswr	<2:1
cable cellular	2.5 m RG174 standard conn. FME(f)
cable GPS	2.5 m RG174 standard conn. SMB(f)
housing size	75 x 80 mm
working temperature	-40°C to +85°C

specification



2J1600B - body mount

mounting position	any metallic surface
application	Tracking / navigation systems
nominal impedance	50 Ohms
frequency	AMPS 824-894 MHz • 1575.42 MHz GSM • PCN • DCS • 1.9 GHz
polarization	horizontal/vertical
gain	26 dBi at 3V • 28 dBi at 5V
vswr	<2:1
cable cellular	2.5 m RG174 standard conn. FME(f)
cable GPS	2.5 m RG174 standard conn. SMB(f)
housing size	75 x 80 mm
working temperature	-40°C to +85°C

specification



2J1600M - magnet

mounting position	DASH BOARD, WINDSCREEN
application	Tracking / navigation systems
nominal impedance	50 Ohms
frequency	AMPS 824-894MHz • 1575.42 MHz GSM • PCN • DCS • 1.9 GHz
polarization	vertical / horizontal
gain	26 dBi at 3V • 28 dBi at 5V, GSM GAIN 2.25 dBi
vswr	<2:1
cable cellular	2.5 m RG174 standard conn. FME(f)
cable GPS	2.5 m RG174 standard conn. SMB(f)
housing size	77 x 12 mm
working temperature	-40°C to +85°C

specification



2J1620P



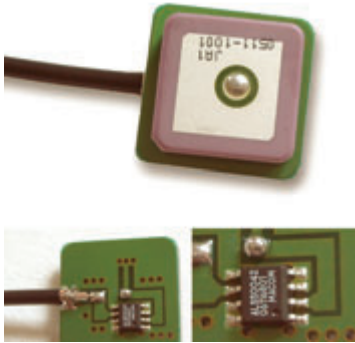
2J405S - module



specification

mounting position	-
application	-
nominal impedance	50 Ohms
frequency	1575.42 MHz
polarization	horizontal
gain	18 dBi
vswr	<2:1 max
cable	cable on request connector on request
pcb size	26 x 26 mm
working temperature	-40°C to +85°C

2J400U - module



specification

mounting position	-
application	-
nominal impedance	50 Ohms
frequency	1575.42 MHz
polarization	horizontal
gain	26 dB at 3V • 28 dB at 5V
vswr	<2:1 max
cable	cable on request connector on request
pcb size	22 x 22 mm
working temperature	-40°C to +85°C

2J403U - module



specification

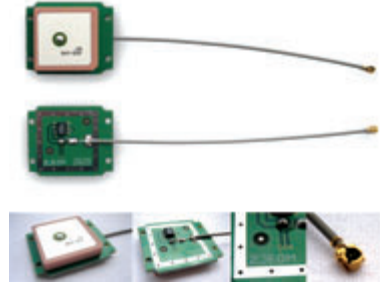
mounting position	-
application	-
nominal impedance	50 Ohms
frequency	1575.42 MHz
polarization	horizontal
gain	26dB at 3V • 28dB at 5V
vswr	<2:1 max
cable	cable on request connector on request
pcb size	26 x 38 mm
working temperature	-40°C to +85°C



# gps modules

mounting position	-
application	-
nominal impedance	50 Ohms
frequency	1575.42 MHz
polarization	horizontal
gain	26 dB at 3V • 28 dB at 5V
vswr	<2:1 max
cable	11 cm - U.FL connector
pcb size	-
working temperature	-40°C to +85°C

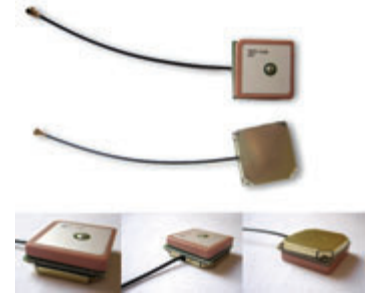
specification



21E0M - module

mounting position	-
application	-
nominal impedance	50 Ohms
frequency	1575.42 MHz
polarization	horizontal
gain	26 dB at 3V • 28 dB at 5V
vswr	<2:1 max
cable	cable on request connector on request
pcb size	26 x 26mm
working temperature	-40°C to +85°C

specification



21402S - module

mounting position	-
application	-
nominal impedance	50 Ohms
frequency	1575.42 MHz
polarization	horizontal
gain	26dB at 3V • 28dB at 5V
vswr	<2:1 max
cable	cable on request connector on request
pcb size	26 x 26 mm
working temperature	-40°C to +85°C

specification



21402U - module

mounting position	-
application	-
nominal impedance	50 Ohms
frequency	1575.42 MHz
polarization	horizontal
gain	26 dBi
vswr	<2:1 max
cable	cable on request connector on request
pcb size	22 x 22 mm
working temperature	-40°C to +85°C

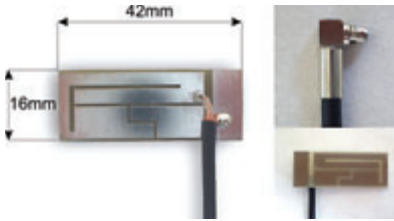
specification



21400F - module



2JMAS01



specification

mounting position	-
application	-
nominal impedance	50 Ohms
frequency	AMPS 824-894 MHz • GSM 900, 1800 MHz • PCN 1.9 GHz • UMTS 2.1 GHz • Bluetooth 2.4 GHz
polarization	vertical
gain	0 dBi
vswr	900 MHz : <1.5/1 • 1800 MHz : <1.2/1 2100 MHz : <1.5/1 • 2400 MHz : <2.0/1
power handling	25 W
cable type	On request
cable length	On request
connector	On request
size	42 x 16 x 1.6 mm

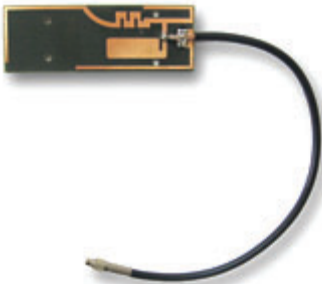
2JDGACT01



specification

mounting position	-
application	-
nominal impedance	50 Ohms
frequency	AMPS 824-894MHz • GSM 900, 1800MHz • PCN 1.9GHz • UMTS 2.1GHz • Bluetooth 2.4GHz
polarization	vertical
gain	0 dBi
vswr	<1.5/2
power handling	25 W
cable type	On request
cable length	On request
connector	On request
size	25 x 75 mm

2J550 - module



specification

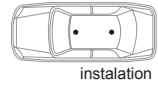
mounting position	-
application	-
nominal impedance	50 Ohms
frequency	AMPS 824-894 MHz • GSM 900, 1800 MHz • PCN 1.9 GHz • UMTS 2.1 GHz • Bluetooth 2.4 GHz
polarization	vertical
gain	0 dBi
vswr	<1.5/2
power handling	25 W
cable type	RG174
cable length	On request
connector	On request
size	22 x 62 mm



# body mount antennas

mounting position	car roof
application	hands - free car kits
nominal impedance	50 Ohms
requecy	450 MHz
polarization	vertical
gain	0 dBi
vswr	<1.5:1
power handling	100 W
cable type	RG58
cable length	4.25 m
connector	FME Female
housing size	175 x 30 mm
working temperature	-40°C to +85°C

specification



2J130B

mounting position	car roof
application	hands - free car kits
nominal impedance	50 Ohms
frequency	GSM 900, 1800 MHz • PCN 1,9 GHz • DCS • UMTS 2,1 GHz
polarization	vertical
gain	0 dBi
vswr	<2:1
power handling	100 W
cable type	RG58
cable length	4.25 m
connector	FME Female
housing size	67 x 29 mm
working temperature	-40°C to +85°C

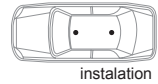
specification



2J120BF

mounting position	CAR ROOF
application	HANDS - FREE CAR KITS
nominal impedance	50 Ohms
frequency	GSM 900, 1800 MHz PCN + 1,9GHz • UMTS 2,1GHz • Bluetooth 2,4GHz
polarization	horizontal/vertical
gain	2.14 dBi
vswr	<1.5:1
power handling	50 W
cable type	RG 174
cable length	4.25 m
connector	FME female
housing size	75 x 80 mm
working temperature	-40°C to +85°C

specification



2J610B - body mount



2J120B



instalation

specification

mounting position	car roof
application	hands - free car kits
nominal impedance	50 Ohms
frequency	GSM 900, 1800 MHz • PCN 1,9 GHz • DCS • UMTS 2,1 GHz
polarization	vertical
gain	-
vswr	<2:1
power handling	100 W
cable type	RG58
cable length	4.25 m
connector	FME (f)
housing size	67 x 29 mm
working temperature	-40°C to +85°C



2J330M



specification

mounting position	any metallic surface (car, computer, ...)
application	hands - free car kits
nominal impedance	50 Ohms
frequency	TETRA 380 MHz to 500 MHz
polarization	vertical
gain	5 dBi
vswr	<1.5/2
power handling	30 W
cable type	RG 174
cable length	2.5 m
connector	FME Female
housing size	410 x 29 mm
working temperature	-40°C to +85°C





## magnetic mount antennas

mounting position	any metallic surface (car, computer, ...)
application	hands - free car kits
nominal impedance	50 Ohms
frequency	GSM 900, 1800 MHz • PCN 1,9 GHz • UMTS 2,1 GHz
polarization	vertical
gain	5dBi
vswr	<2:1
power handling	30 W
cable type	RG174
cable length	2.5 m
connector	FME Female
housing size	300 x 29 mm
working temperature	-40°C to +85°C

specification



2J320M

mounting position	car roof
application	hands - free car kits
nominal impedance	50 Ohms
frequency	GSM 900, 1800 MHz PCN • 1,9 GHz • UMTS 2,1 GHz • Bluetooth 2,4 GHz
polarization	horizontal / vertical
gain	2.14 Dbi
vswr	<1.5:1
power handling	50 W
cable type	RG 174
cable length	2.50 m
connector	FME female
housing size	75 x 80 mm
working temperature	-40°C to +85°C

specification



2J610M

mounting position	any metallic surface (car, computer, ...)
application	hands - free car kits
nominal impedance	50 Ohms
frequency	AMPS 824-894 MHz • GSM 900, 1800 MHz • PCN 1,9 GHz • UMTS 2,1 GHz
polarization	vertical
gain	2.5 dB
vswr	<2:1
power handling	30 W
cable type	RG174
cable length	2.5 m
connector	FME (f)
housing size	88.6 x 29 mm
working temperature	-40°C to +85°C

specification



2J300M



2J030



specification

connector	FME Female
frequency	868 MHz • Multiband whip GSM • PCN • UMTS • 2.4 GHz Bluetooth
working temperature	-40°C to +85°C
others	This whip can be tuned for specific frequency. It can also be multiband

2J020W



specification

connector	SMA Male
frequency	868MHz • Multiband whip GSM • PCN • UMTS • 2.4 GHz Bluetooth
working temperature	-40°C to +85°C
others	This whip can be tuned for specific frequency. It can also be multiband

2J020



specification

connector	SMA Male
frequency	868MHz • Multiband whip GSM • PCN • UMTS • 2.4 GHz Bluetooth
working temperature	-40°C to +85°C
others	This whip can be tuned for specific frequency. It can also be multiband

2J010



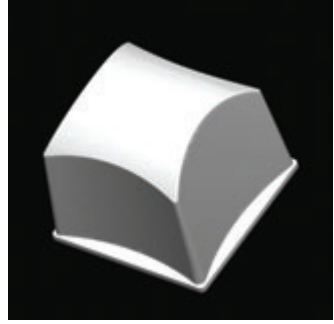
specification

connector	SMA Male or FME Female
frequency	868MHz • GSM • PCN • UMTS • 2.4 GHz Bluetooth
working temperature	-40°C to +85°C
others	This whip can be tuned for specific frequency. It can also be multiband



impedance	50 Ohms
frequency	2.4 GHz
vswr	<2:1
gain	12 dBi
connector	N Type f

specification



2JWH12

frequency	2.4 GHz - 2.487 GHz
vswr	<2:1
polarization	vertical
gain	2.2 dBi
impedance	50 Ohms
connector	SMA Male

specification



2J010

frequency	2.4 GHz - 2.487 GHz
vswr	<2:1
polarization	vertical
gain	2.2 dBi
impedance	50 Ohms
connector	SMA Male Right angle

specification



2J020



2J200GPW



specification

mounting position	Wall
application	GSM
nominal impedance	50 Ohms
frequency	GSM • PCN • 1.9GHz USA • UMTS • 2.4GHz Bluetooth
polarization	vertical
gain	2.5 dBi
vswr	<2:1
power handling	100 W
cable type	RG58
cable length	5 m
connector	FME Female
housing size	298 x 17 mm

2J200GP



specification

mounting position	Wall
application	GSM
nominal impedance	50 Ohms
frequency	GSM • PCN • 1.9GHz USA • UMTS • 2.4GHz Bluetooth
polarization	vertical
gain	2.5 dBi
vswr	<2:1
power handling	100 W
cable type	RG58
cable length	5 m
connector	FME Female
housing size	298 x 17 mm



frequency	900 and 1800 MHz Dual band - (US and other frequencies by request)
impedance	50 Ohms
bandwidth	80 MHz GSM 900 Mobile Tx optimised 140 MHz GSM 1800 Mobile Tx optimised
vswr	< 2.0:1 mobile TX
polarization	vertical
gain	0 dBi Typically
elevation coverage	0 to 90 Degrees
azimuth coverage	360 Degrees
mount	Single Nylon Hollow Stud 16 mm Diameter (s stud on LPT007/8)
cable	1 x 2.5 m RG174
connector	FME Female GSM
housing size	95 mm diameter x 32 mm high
description	95 mm groundplane independent single stud without GPS Black or White radome

specification



2JPA100

frequency	900 and 1800 MHz Dual band - (US and other frequencies by request)
impedance	50 Ohms
bandwidth	80 MHz GSM 900 Mobile Tx optimised 140 MHz GSM 1800 Mobile Tx optimised
vswr	< 2.0:1 mobile TX
polarization	vertical
gain	0dBi Typically
elevation coverage	0 to 90 Degrees
azimuth coverage	360 Degrees
mount	Single Nylon Hollow Stud 16 mm Diameter (s stud on LPT007/8)
cable	2 x 2.5 m RG174 Others by request
connector	FME Female GSM + SMA Male GPS - others by request
housing size	95 mm diameter x 32 mm high
description	95 mm groundplane independent single stud with Active GPS Black or White radome

specification



2JPA110

frequency	380 to 400MHz
impedance	50 Ohms
bandwidth	10MHz 380 - 390 Mobile Tx optimised 20MHz 380 - 400MHz Mobile Rx
vswr	1.5:1 380-390 2.0:1 380-400
polarization	vertical
gain	-4dBi Typically (low sensit. typic. -10dbi)
elevation coverage	0 to 90 Degrees
azimuth coverage	360 Degrees
mount	Single Nylon Hollow Stud 16 mm Diameter (s stud on LPT007/8)
cable	1 x 300 mm RG174
connector	FME Female + FME Male colour coded as default - others by request
housing size	111 mm diameter x 35 mm high
description	111 mm ultra small groundplane independent low sensitivity, no GPS

specification



2JPA200



2JPA210



specification

frequency	380 to 400 MHz
impedance	50 Ohms
bandwidth	10 MHz 380-390 Mobile Tx optimised 20 MHz 380 - 400 MHz Mobile Rx
vswr	1.5:1 380-390 2.0:1 380-400
polarization	vertical
gain	-4dBi Typically ( low sensit. typic. -10dbi)
elevation coverage	0 to 90 Degrees
azimuth coverage	360 Degrees
mount	Single Nylon Hollow Stud 16 mm Diam- eter (s stud on LPT007/8)
cable	2 x 300 mm RG174
connector	FME Female + FME Male colour coded as default - others by request
housing size	111 mm diameter x 35 mm high
description	111 mm ultra small groundplane inde- pendent low sensitivity, with GPS

2JPA220



specification

frequency	380 to 400MHz
impedance	50 Ohms
bandwidth	10MHz 380-390 Mobile Tx optimised 20MHz 380 - 400MHz Mobile Rx
vswr	1.5:1 380-390 2.0:1 380-400
polarization	vertical
gain	-4dBi Typically ( low sensit. typic. -10dbi)
elevation coverage	0 to 90 Degrees
azimuth coverage	360 Degrees
mount	Single Nylon Hollow Stud 16 mm Diam- eter (s stud on LPT007/8)
cable	1 x 300mm RG174
connector	FME Female + FME Male colour coded as default - others by request
housing size	142 x35 mm
description	142 mm groundplane independent low sensitivity, without GPS

2JPA230



specification

frequency	380 to 400MHz
impedance	50 Ohms
bandwidth	10 MHz 380-390 Mobile Tx optimised 20 MHz 380 - 400 MHz Mobile Rx
vswr	1.5:1 380-390 2.0:1 380-400
polarization	vertical
gain	-4dBi Typically ( low sensit. typic. -10dbi)
elevation coverage	0 to 90 Degrees
azimuth coverage	360 Degrees
mount	Single Nylon Hollow Stud 16 mm Diameter (s stud on LPT007/8)
cable	2 x 300 mm RG174
connector	FME Female + FME Male colour coded as default - others by request
housing size	142 mm diameter x 35 mm high
description	142 mm groundplane independent low sensitivity, with GPS



frequency	380 to 400 MHz
impedance	50 Ohms
bandwidth	10 MHz 380-390 Mobile Tx optimised 20 MHz 380 - 400 MHz Mobile Rx
vswr	1.5:1 380-390 2.0:1 380-400
polarization	vertical
gain	-4dBi Typically (low sensit. typic. -10dbi)
elevation coverage	0 to 90 Degrees
azimuth coverage	360 Degrees
mount	Single Nylon Hollow Stud 16 mm Diam- eter (s stud on LPT007/8)
cable	1 x 300 mm RG174
connector	FME Female + FME Male colour coded as default - others by request
housing size	190 x 62 mm
description	190 mm groundplane independent low sensitivity, without GPS

specification



2JPA240

frequency	380 to 400MHz
impedance	50 Ohms
bandwidth	10 MHz 380-390 Mobile Tx optimised 20 MHz 380 - 400 MHz Mobile Rx
vswr	1.5:1 380-390 2.0:1 380-400
polarization	vertical
gain	-4dBi Typically (low sensit. typic. -10dbi)
elevation coverage	0 to 90 Degrees
azimuth coverage	360 Degrees
mount	Single Nylon Hollow Stud 16mm Diameter (s stud on LPT007/8)
cable	2 x 300 mm RG174
connector	FME Female + FME Male colour coded as default - others by request
housing size	190 mm diameter x 62 mm high
description	190 mm groundplane independent low sensitivity, with GPS

specification



2JPA250

frequency	150 to 210 MHz Exact frequency to order
impedance	50 Ohms
bandwidth	8 to 12 MHz dependent on centre frequency No onsite tuning needed
vswr	<2.0:1 mobile TX
polarization	vertical
gain	-1 dBi Typically
elevation coverage	0 to 90 Degrees
azimuth coverage	360 Degrees
mount	Single Nylon Hollow Stud 16mm Diam- eter (dual stud by request)
cable	1 x 2.5m RG58
connector	Un-terminated as standard Connectors by request
housing size	242 mm diameter x 36 mm high
description	242 mm groundplane independent single / dual stud without GPS Black or White radome

specification



2JPA300



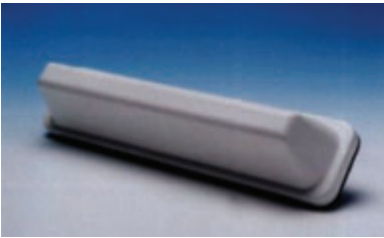
2JPA310



specification

frequency	150 to 210 MHz Exact frequency to order
impedance	50 Ohms
bandwidth	8 to 12 MHz dependent on centre frequency No onsite tuning needed
vswr	<2.0:1 mobile TX
polarization	vertical
gain	-1dBi Typically
elevation coverage	0 to 90 Degrees
azimuth coverage	360 Degrees
mount	Single Nylon Hollow Stud 16mm Diameter (dual stud by request)
cable	2 x 2.5m RG174 Others by request
connector	Un-terminated as standard Connectors by request
housing size	242 mm diameter x 36mm high
description	242 mm groundplane independent single / dual stud with GPS Black or White radome

2JPA400



specification

frequency	150 to 210 MHz Exact frequency to order
impedance	50 Ohms
bandwidth	8 to 12 MHz dependent on centre frequency No onsite tuning needed
vswr	<2.0:1 mobile TX
polarization	vertical
gain	-3dBi Typically
elevation coverage	0 to 90 Degrees
azimuth coverage	360 Degrees
mount	Dual Nylon Hollow Stud 16 mm Diameter
cable	1 x 3.05 m RG58 Others by request
connector	Un-terminated as standard, Connectors by request
housing size	346mm long x 80 mm wide x 76 mm high
description	346 mm groundplane independent single / dual stud without GPS Black or White Radome

2JPA410



specification

frequency	150 to 210 MHz Exact frequency to order
impedance	50 Ohms
bandwidth	8 to 12 MHz dependent on centre frequency No onsite tuning needed
vswr	<2.0:1 mobile TX
polarization	vertical
gain	-3dBi Typically
elevation coverage	0 to 90 Degrees
azimuth coverage	360 Degrees
mount	Dual Nylon Hollow Stud 16mm Diameter
cable	1 x 3.05m RG58 Others by request
connector	Un-terminated as standard, Connectors by request
housing size	330mm long x 63mm wide x 80mm high
description	330mm groundplane independent single / dual stud with active GPS Black or White Radome





connector description	ISO male
material	plastic, nickel
impedance	50 Ohm
finish	-

specification



C98

connector description	DIN male
material	nickel
impedance	50 Ohm
finish	nickel

specification



C99

connector description	GT5 Male, light grey
material	plastic, nickel
impedance	50 Ohm
finish	-

specification



C100

connector description	Fakra C type (Blue 5005) male for RG174
material	plastic, brass
impedance	50 Ohms

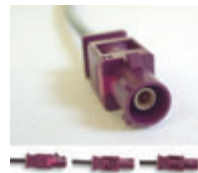
specification



C95

connector description	Fakra D type (Bordeaux 4004) female for RG174
material	plastic, brass
impedance	50 Ohms

specification



C125



C90



specification

connector description	McCard male Right Angle RG174
material	brass
impedance	50 Ohms

C44



specification

connector description	MMCX male right angle RG174
material	brass
impedance	50 Ohms

C103



specification

connector description	MS 151
material	BRASS
impedance	50 ohm
finish	nickel, gold

C05



specification

connector description	MMCX (m)
material	BRASS
impedance	50 ohm
finish	nickel, gold

C39



specification

connector description	FME male jack bulkhead
material	BRASS
impedance	50 ohm
finish	nickel



reference Adaptor FME male to UHF male

side a FME male

side b UHF male

specification



reference Adaptor FME male to TNC male

side a FME male

side b TNC male

specification



reference Adaptor FME male to SMA male

side a FME male

side b SMA male

specification

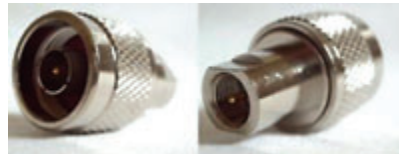


reference Adaptor FME male to N male

side a N male

side b FME male

specification





specification

reference	Adaptor FME male to Mini UHF male
side a	Mini UHF male
side b	FME male



specification

reference	Adaptor FME male to FME male
side a	FME male
side b	FME male



specification

reference	Adaptor FME male to BNC male
side a	BNC male
side b	FME male



specification

reference	Adaptor FME male right angle to Mini UHF male
side a	FME male
side b	Mini UHF male

alternatives available upon request

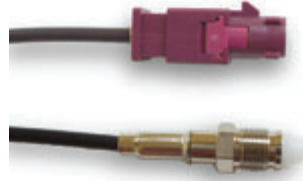


# adaptor leads

side a	Fakra D type (Bordeaux 4004) female for RG174
side b	FME Female for RG174
cable	RG174

alternatives available upon request

specification



side a	FME Female for RG58
side b	FME Male for RG58
cable	RG58

alternatives available upon request

specification



side a	MMS Male Right Angle for RG316
side b	MCX Female bulkhead for RG316
cable	RG316

alternatives available upon request

specification



side a	MMS Male Right angle for RG178
side b	SMA Female bulkhead for RG178
cable	RG178

alternatives available upon request

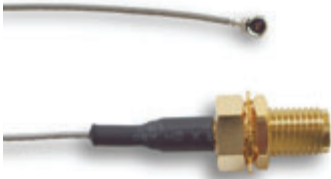
specification





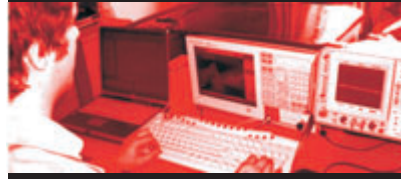
specification

side a	H.F.L.
side b	MCX Female bulkhead
cable	Microcoax 1.32 mm
alternatives available upon request	



specification

side a	GSC
side b	SMA female bulkhead
cable	Microcoax 0.81mm
alternatives available upon request	



## ■ Contents

2\_ introduction

3\_ production

4\_ patch antennas

8\_ dvbt antennas

9\_ gps antennas

10\_ gps combined

12\_ gps modules

14\_ gsm modules

15\_ body mount antennas

15\_ magnetic mount antennas

18\_ telematic antennas

19\_ wifi / wimax antennas

20\_ house antennas

21\_ planar antennas

25\_ connectors

27\_ adaptors

29\_ adaptor leads



2J s.r.o.  
Štefánikova 61  
085 01 Bardejov  
Slovak Republic

tel.: +421 54 488 01 30  
fax: +421 54 488 29 71  
e-mail: [info@2j-antennae.com](mailto:info@2j-antennae.com)

[www.2j-antennae.com](http://www.2j-antennae.com)