



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



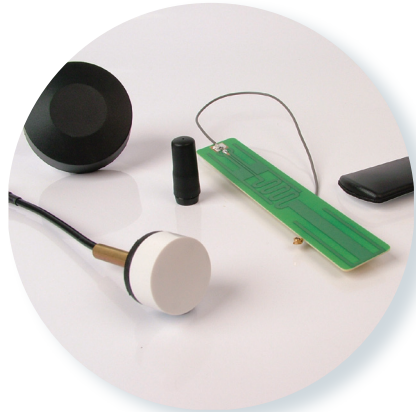
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*Antennas, RF Cables & Adaptors*

## *airCONNECT Antenna Mounting Styles*

**Siretta antennas started as a necessity** – they say that necessity is the mother of invention – so it was with Siretta and antennas. With many years of wireless knowledge and ‘know-how’ in designing Cellular and related wireless data modems and routers, having to add antennas proved difficult. It’s somewhat a black art and we found very few suppliers of antennas and those that there were did not know the ‘art’ and could not advise beyond their ‘odd’ part number and a long lead time. Consequently, we grasped the nettle ten years ago and set about ‘making life easier’ for us and our customers by designing our own and understanding the performance of them. That’s the history of our antenna range – probably the widest range – where the use and performance of each antennas is clear and with test figures to demonstrate. We have also created a part number system that describes each antenna accurately and is easily remembered.

**‘An antenna is just a piece of wire....’** The notion that we find many people have is that an antenna is just a convenient sized piece of wire in air. We would love that to be the case, however the reality of wireless is that antennas have to conform to a set of physics suitable to the application that they are to be used in. It is the understanding of the physics of what is required in an antenna, coupled with the equipment it is to be used with, that needs careful consideration before the overall equipment design is done.

**Why doesn’t my antenna work well??** - this is a very common question for us and as the ‘black art’ that it is the reasons could be manifold. But central to the question is generally a few considerations that will ensure the right type of antenna is used for the design – or modification of the design to accommodate the limitations or characteristics of the chosen antenna.

Our success in Antenna design and supply is the unbeatable combination of advising customers on antenna selection or customized antenna design and how to use them – and also offering volume supply via our distributors at an unbeatable price.



## *Customer Services*

*We want to talk to you about your antennas...*

### ***Technical and solution advice...***

Whether you want to find out why your current antenna solutions is not working the way you think it should or to ask us about an antenna solution for a new project you are working on - **we welcome your call.**

### ***Competitive products.....***

Put us to the test on how competitive we are for our quality antennas and RF cables – **call us with your product requirement for a quote** – whether you want technical advice or not.

Antenna and RF cable hotline...

**+44 (0)118 976 9014**

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For more information contact:

**+44 (0)118 976 9014**

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For more information contact:

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## About airCONNECT Antennas

Siretta is the partner of choice when it comes to advice and supply of quality antenna systems and solutions. Our airCONNECT antenna solutions are tested for high performance and have proven endurance when used in service. All antennas can be customized to individual customer requirements

The airCONNECT range offers the largest range of high performance antennas operating at the widest range of frequencies - 2G, 3G, 4G, WiFi, GPS, Bluetooth, ISM.



For more information contact:

+44 (0)118 976 9014



## *airCONNECT Antenna Mounting Styles*

To simplify selection and to aid identification we have organised our antennas into different physical mounting ranges and given them an easily remembered name:

### **ALPHA**

Self-adhesive range of antennas, great for attaching anywhere you wish. Alpha antennas can be for inside mounting or external – open to the elements - mounting depending on actual type.

### **DELTA**

Direct connect antennas with no cable. These can be miniature antennas to large knuckle jointed or flexi whip antennas but they all connect directly with your equipment.

### **ECHO**

ECHO antennas are embedded types that are either placed on your PCB or within your equipment's enclosure. Mostly PCB or ceramic types.

### **MIKE**

MIKE antennas have a magnetic base range and can be used for any temporary application or where 're-siting' the antenna is important.

### **OSCAR**

OSCAR antennas are wall mounted or pole mounted external antennas and comprise omni, dipole and yagi types.

### **TANGO**


TANGO antennas are through hole mounted antennas with a stud and nut, suitable for most external applications where an antenna has to be fitted to a panel or equipment box.

Within these ranges you will find different variations of antennas including sizing and frequencies. **See Antenna finder for frequency band way of selecting an antenna.** All of our antennas can be customized to fit your requirements, whether it is changing the connector type or increasing the length of cable or other element of the design – Siretta are here to help.

# Antenna Finder

## Alpha Range - Self Adhesive

Antenna	GSM	UMTS	LTE	GPS	ISM	WiFi	Combined	Page/s
Alpha 1A 	•	•				•		19 47
Alpha 3A 	•	•				•		19 47
Alpha 4A 				•				33
Alpha 6 	•			•			•	37
Alpha 7 	•			•			•	37
Alpha 8 	•	•			•			19 41
Alpha 9 	•			•			•	37
Alpha 10 						•		47
Alpha 11 	•	•			•			20
Alpha 14 	•	•			•			20 41
Alpha 15 	•	•			•			20 41

Antenna	GSM	UMTS	LTE	GPS	ISM	WiFi	Combined	Page/s
Alpha 16 						•		48
Alpha 18 	•	•						21
Alpha 19 				•				33
Alpha 20 	•	•						21
Alpha 40 	•	•	•					21

## Delta Range - Direct Connect

Antenna	GSM	UMTS	LTE	GPS	ISM	WiFi	Combined	Page/s
Delta 1A 	•	•						22 42
Delta 1C 	•							22
Delta 2A 	•	•						22 42
Delta 2C 	•							23
Delta 5 					•			42





# Antenna Finder

Antenna	GSM	UMTS	LTE	GPS	ISM	WiFi	Combined	Page/s
Delta 5A 					•			43
Delta 6A 	•	•						23
Delta 6B 						•		48
Delta 6C 						•		48
Delta 7A 						•		49
Delta 7B 	•	•						23
Delta 8A 						•		49
Delta 10A 						•		49
Delta 11 					•			43
Delta 12 					•			43
Delta 12A 					•			44

# Antenna Finder

Antenna	GSM	UMTS	LTE	GPS	ISM	WiFi	Combined	Page/s
Delta 12B 					•			44
Delta 12C 					•			44
Delta 14 						•		50
Delta 15 						•		50
Delta 40 	•	•	•					24
Delta 41 	•	•	•					24





## Echo Range - Embedded

Antenna	GSM	UMTS	LTE	GPS	ISM	WiFi	Combined	Page/s
Echo 1A 	•	•						24
Echo 2 	•	•			•	•		25 45 50
Echo 5 				•				33
Echo 11 						•		51






# Antenna Finder

Antenna	GSM	UMTS	LTE	GPS	ISM	WiFi	Combined	Page/s
Echo 12 	•	•						25
Echo 14 	•	•	•		•			25 45
Echo 17 						•		51
Echo 18 						•		51
Echo 19 				•				34
Echo 26 				•				34
Echo 27 				•				34
Echo 28 						•		52
Echo 29 						•		52
Echo 30 	•	•						26
Echo 32 				•				35



## Mike Range - Magnetic Mount

Antenna	GSM	UMTS	LTE	GPS	ISM	WiFi	Combined	Page/s
Mike 1A 	•	•						26
Mike 1B 	•				•			45
Mike 2A 	•	•						26
Mike 3A 				•				35

## Oscar Range - Wall Mount

Antenna	GSM	UMTS	LTE	GPS	ISM	WiFi	Combined	Page/s
Oscar 1A 	•	•						27
Oscar 3A 	•							27
Oscar 17 	•	•						27
Oscar 18 	•	•				•		28 52
Oscar 20 	•	•	•					28

# Antenna Finder

Antenna	GSM	UMTS	LTE	GPS	ISM	WiFi	Combined	Page/s
Oscar 40 	•	•	•			•		28 53
Oscar 41 	•	•	•			•		28 53

## Tango Range - Through Hole










Antenna	GSM	UMTS	LTE	GPS	ISM	WiFi	Combined	Page/s
Tango 1 	•	•						29
Tango 3 	•	•						29
Tango 6A 	•			•			•	38
Tango 6B 	•			•		•	•	38
Tango 11A 	•	•						30
Tango 14 	•	•						30
Tango 15 	•			•			•	38
Tango 16 	•			•			•	39



# Antenna Finder

Antenna	GSM	UMTS	LTE	GPS	GNSS	ISM	WiFi	Combined	Page/s
Tango 17 	•	•							30
Tango 18 	•	•							31
Tango 19 	•			•				•	39
Tango 20 				•					35
Tango 20A 				•	•				36
Tango 21 				•					36
Tango 22 	•	•		•			•	•	39
Tango 23 							•		53
Tango 24 							•		54
Tango 25 							•		54
Tango 25A 							•		54

# Antenna Finder

Antenna	GSM	UMTS	LTE	GPS	ISM	WiFi	Combined	Page/s
Tango 26 						•		55
Tango 27 		•						31
Tango 33 	•	•						31
Tango 34 								32
Tango 35 						•		55
Tango 40 	•	•	•					32
Tango 41 	•	•	•					32
Tango 43 		•				•		40
Tango 44 			•	•		•		40

Learn more about our antennas at  
[www.siretta.co.uk/antennas](http://www.siretta.co.uk/antennas)

or call us on

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## Alpha 1A - T-Bar Antenna

Frequencies	850, 900, 1800, 1900MHz, 2.1, 2.4GHz
Operating temp	-40 to +85°C
Impedance	50 ohm
Gain	2dBi
VSWR	2 max
Polarization	Vertical
Size	130 x 11 x 4mm
Cable	RG174

ADHESIVE



Cable length and connector as required

## Alpha 3A - Small Flat Blade Antenna

Frequencies	850, 900, 1800, 1900MHz, 2.1, 2.4GHz
Operating temp	-40 to +85°C
Impedance	50 ohm
Gain	2.15dBi
VSWR	<1.5:1
Polarization	Vertical
Size	75 x 25 x 2.5mm
Cable	RG174

ADHESIVE



Cable length and connector as required

## Alpha 8 - Flat Blade Antenna (IP67)

Frequencies	850, 868, 900, 1800, 1900MHz, 2.1GHz
Operating temp	-40 to +85°C
Impedance	50 ohm
Gain	2dBi
VSWR	<1.5:1
Polarization	Vertical
Size	113 x 21 x 3mm
Cable	RG174

ADHESIVE



Cable length and connector as required

ADHESIVE



Cable length and connector as required

### Alpha 11 - Flat Blade Antenna

Frequencies	850, 868, 900, 1800, 1900MHz, 2.1GHz
Operating temp	-40 to +85°C
Impedance	50 ohm
Gain	2.5dBi
VSWR	<1.5:1
Polarization	Vertical
Size	115 x 22 x 4mm
Cable	RG174

ADHESIVE



Cable length and connector as required

### Alpha 14 - Thin Plate Antenna

Frequencies	850, 868, 900, 1800, 1900MHz, 2.1GHz
Operating temp	-40 to +85°C
Impedance	50 ohm
Gain	2dBi
VSWR	<2
Polarization	Vertical
Size	40 x 35.5 x 2mm
Cable	RG174

ADHESIVE



Cable length and connector as required

### Alpha 15 - Puck Antenna

Frequencies	850, 868, 900, 1800, 1900MHz, 2.1GHz
Operating temp	-40 to +85°C
Impedance	50 ohm
Gain	2dBi
VSWR	<2.5:1
Polarization	Vertical
Size	Ø71.5 x 14.5mm
Cable	RG174

## Alpha 18 - Dipole Antenna

Frequencies	850, 900, 1800, 1900MHz, 2.1GHz
Operating temp	-40 to +85°C
Impedance	50 ohm
Gain	3dBi
VSWR	<2.0
Polarization	Linear
Size	96.2 x 21.5 x 9.2mm
Cable	RG174

ADHESIVE



Cable length and connector as required

## Alpha 20 - Flat Blade Antenna

Frequencies	900, 1800MHz, 2.1GHz
Operating temp	-40 to +75°C
Impedance	50 ohm
Gain	3dB
VSWR	≤1.5.1
Polarization	Vertical
Size	106 x 14.8 x 5mm
Cable	RG174

ADHESIVE



Cable length and connector as required

## Alpha 40 - T-Bar Antenna

Frequencies	1700, 1900MHz, 2.1, 2.6GHz
Operating temp	-30 to +60°C
Impedance	50 ohm
Gain	700 - 824MHz @ 0.5dBi / 1710 - 2170MHz @ 1dBi / 2300 - 2700MHz @ 2dBi
VSWR	≤3.0
Polarization	Vertical
Size	155 x 30 x 4.5mm
Connector	PRO100 low loss

ADHESIVE



Cable length and connector as required

DIRECT CONNECT



### Delta 1A - Stubby Antenna

Frequencies 850, 900, 1800, 1900MHz, 2.1GHz  
 Operating temp -30 to +75°C  
 Impedance 50 ohm  
 Gain 2dBi  
 VSWR 2 max  
 Polarization Vertical  
 Size 56mm  
 Connector SMA male

DIRECT CONNECT



### Delta 1C - Stubby Antenna

Frequencies 850, 900, 1800, 1900MHz  
 Operating temp -45 to +75°C  
 Impedance 50 ohm  
 Gain 2.16dBi  
 VSWR <1.5 to 1.7:1  
 Polarization Vertical  
 Size 48 x 8mm  
 Connector SMA male

DIRECT CONNECT



### Delta 2A - Hinged Antenna

Frequencies 850, 900, 1800, 1900MHz, 2.1GHz  
 Operating temp -30 to +75°C  
 Impedance 50 ohm  
 Gain 2dBi  
 VSWR 2 max  
 Polarization Vertical  
 Size 53 x 7.3mm  
 Connector SMA male

## Delta 2C - Right Angle Stubby Antenna

Frequencies	850, 900, 1800, 1900MHz
Operating temp	-45 to +75°C
Impedance	50 ohm
Gain	2.15dB
VSWR	<1.5:1 to < 1.7:1
Polarization	Vertical
Size	45 x 8mm
Connector	SMA male / SMA male RP

DIRECT CONNECT



## Delta 6A - Hinged Antenna

Frequencies	850, 900, 1800, 1900MHz, 2.1GHz
Operating temp	-40 to +85°C
Impedance	50 ohm
Gain	6.8dB (peak)
VSWR	<2:1
Polarization	Vertical
Size	187.5 x 9.6mm
Connector	SMA male

DIRECT CONNECT



## Delta 7B - ¼ Wave Hinged Antenna

Frequencies	850, 900, 1800, 1900MHz
Operating temp	-20 to +60°C
Impedance	50 ohm
Gain	1dB
VSWR	<2.0:1
Polarization	Vertical
Size	110 x 10mm
Connector	SMA male

DIRECT CONNECT





DIRECT CONNECT



LTE

Delta 41 - Swivel Antenna

Frequencies	850, 900, 1800, 1900MHz, 2.1, 2.6GHz
Operating temp	-20 to 65°C
Impedance	50 ohm
Gain	790 - 960MHz @ 0dBi / 1710 - 2170MHz @ 1dBi / 2500 - 2700MHz @ 3dBi
VSWR	≤3.0
Polarization	Vertical
Size	161 x 22mm
Connector	SMA male

DIRECT CONNECT



LTE

Delta 41 - Swivel Antenna

Frequencies	850, 900, 1800, 1900MHz, 2.1, 2.6GHz
Operating temp	-20 to +65°C
Impedance	50 ohm
Gain	689 - 960MHz @ 1dBi / 1710 - 2170 @ 2dBi / 2500 - 2700MHz @ 3dBi
VSWR	≤3.0
Polarization	Vertical
Size	237 x 40mm
Connector	SMA male

EMBEDDED



Cable length and connector as required

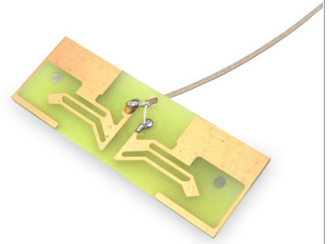
Echo 1A - PCB Antenna

Frequencies	850, 900, 1800, 1900MHz, 2.1GHz
Operating temp	-40 to 85°C
Impedance	50 ohm
Gain	3.66dB @ 2.1GHz
VSWR	<2.0:1
Polarization	Vertical
Size	36 x 6 x 0.6mm
Cable	1.13mm Coax

## Echo 2 - PCB Antenna

Frequencies	850, 868, 900, 1800, 1900MHz, 2.1, 2.4GHz
Operating temp	-40 to +85°C
Impedance	50 ohm
Gain	2dBi
VSWR	<1.5:1
Polarization	Vertical
Size	75 x 25 x 1mm
Cable	1.13mm Coax

EMBEDDED



Cable length and connector as required

## Echo 12 - PIFA Antenna

Frequencies	850, 900, 1800, 1900MHz, 2.1GHz
Operating temp	-35 to +85°C
Impedance	50 ohm
Gain	0.67 to 5.25dB
VSWR	3.0:1 max
Polarization	Linear
Size	24 x 5.5 x 4.4mm
Connector	Solder

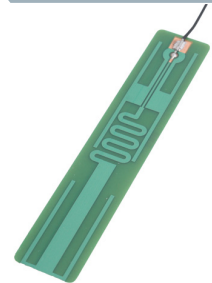
EMBEDDED



## Echo 14 - PCB Antenna

Frequencies	850, 868, 900, 1800, 1900MHz, 2.1, 2.6GHz
Operating temp	-20 to +60°C
Impedance	50 ohm
Gain	0dBi
VSWR	3.2:1
Polarization	Vertical
Size	20 x 105 x 1mm
Cable	1.13mm Coax

EMBEDDED



LTE

Cable length and connector as required