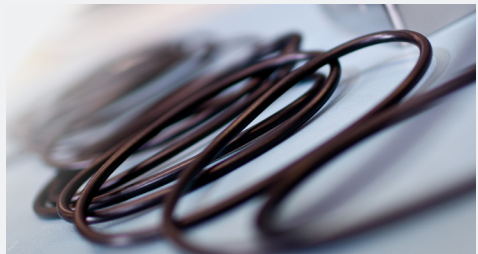
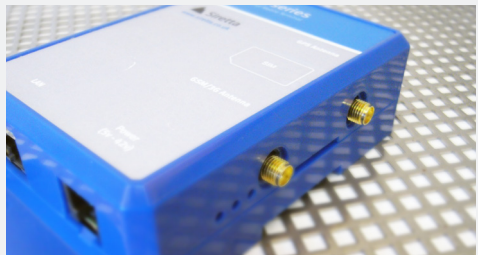




Inspired Wireless M2M Technology



Advanced Wireless Products

- » Cellular Modems & Testers
- » Antenna Systems
- » RF Cable Assemblies
- » RF Adaptors & Connectors

Siretta

**DESIGN,
MANUFACTURE
& SUPPLY**

the widest range of quality antennas for the electronics market along with best range of industrial modems under one name. All at a competitive price point and with solid expertise to offer our customers..





We now supply some of the largest wireless customers with antennas, cables and M2M modems – many built to customer specification in conjunction with detailed design advice.

With 20 years' experience in the wireless M2M telemetry market, we design and supply to customer's applications on a global basis. We focus on frequencies within the 76MHz to 5.8GHz range encompassing HF, VHF, ISM, GSM/GPRS, 3G/UMTS, 4G/LTE, and GPS frequencies.



Advanced Design Products

To meet the increasing need for wireless M2M connection, Siretta offer a range of technically advanced 2G / 3G / 4G modems, providing solutions for a wide range of applications. Designed and manufactured by us, we have taken customer requests and turned these into cutting edge, finished product modems for the 2G / 3G / 4G networks.

The functionality within the ZEST, ZETA, ZOOM, ZULU and ZEUS is significantly more advanced than most other modem manufacturers today, delivering excellent technical performance and great value for money.



Similarly, we also have a range of 2G / 3G signal testers to help evaluate signal strength and antenna performance in the field. These are now used by many people and organisations for evaluating and datalogging reception of 2G and 3G networks in specific locations.





Customer Services

At Siretta we have a dedicated team of design engineers all available to help customise our products to your needs. Our experienced technical and sales staff are all contactable at our offices in Reading UK to discuss your application, requirements and suitable solution.

For more information contact:
+44 (0)118 976 9014

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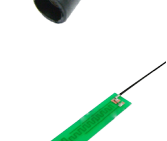
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For more information contact:

+44 (0)118 976 9014

About Modems and Testers

Machine to machine (M2M) connectivity and the 'Internet-of-Things' is dramatically changing the way that equipment and remote devices communicate, bringing wide reaching benefits in system function and efficiency. Wireless modems are at the heart of this revolution, enabling almost any application or device to become wireless, and in doing so reap the amazing benefits that M2M connectivity can offer.

Siretta is a leading supplier of wireless modems, offering a broad selection of products for this exciting market development. Fully designed and developed in house, we have taken our many years of wireless experience and produced a range of cutting edge products, offering excellent technical performance and great value for money.



The functionality within our quikCONNECT modems is some of the most advanced on the market today, with a multi-level product range providing innovative solutions for all sectors and applications. From the entry level ZEST to the powerful Ethernet enabled ZEUS, our products combine ease of use and advanced features, with robust reliable performance for the most demanding of environments. With the added benefit of local design and engineering support from our UK office, Siretta is your ideal wireless connectivity partner.

quikCONNECT ZEST

- » Low Cost
- » 2G / 3G
- » Compact
- » Essential features



Entry level modem offering RS232 / USB connectivity for the GPRS / UMTS networks.

See page 12 for more on the ZEST

quikCONNECT ZETA

- » 2G / 3G / 4G
- » RS232 interface
- » 5-60 input voltage
- » GPS option



Fully featured GSM modem, the perfect solution for M2M communication.

See page 13 for more on the ZETA

quikCONNECT ZOOM

- » Integratable
- » 2G / 3G / 4G
- » GPS option
- » EVK available



Embedded socket modem via 2x 20-way PCB pin sockets.

See page 14 for more on the ZOOM

quikCONNECT ZULU

- » USB / RS232
- » DIN rail mounting
- » Battery option
- » 2G / 3G / 4G
- » GPS option
- » Battery option



Advanced USB modem with 210 MIPS ARM M4 processor.

See page 15 for more on the ZULU

quikCONNECT ZEUS

- » Ethernet interface with webservice
- » DIN rail mounting
- » 2G / 3G / 4G
- » GPS option
- » Battery option



Advanced 210 MIPS ARM Cortex M4 processor modem with 10 Base-T Ethernet port.

See page 16 for more on the ZEUS

quikCONNECT ZULU / ZEUS-EVK

- » 32 bit ARM Cortex M4
- » RS232 Port
- » USB / Ethernet Interface
- » Power 5v-42v
- » GPIO



Evaluation and development platform for the ZULU / ZEUS modems.

See page 17 for more on the EVK

quikCONNECT ZOOM-EVK

- » RS232 Port
- » USB Interface
- » Power 5v-42v
- » GPIO
- » Embedded
- » ZOOM development platform



Evaluation and development platform for the ZOOM embedded socket modem.

See page 18 for more on the EVK

SNYPER

- » 2G / 3G
- » Summary screen
- » Large LCD
- » USB charging
- » Rugged case



Cellular signal and network analyser finds the perfect GSM network for your application.

See page 24 for more on the SNYPER

linkCONNECT Self Managed Modems

- » Connect any RS232 device to the internet
- » Control via your PC anywhere in the world
- » Easy to configure



linkCONNECT products have been created for equipment which has a RS232 serial port for configuration and control.

See page 22 for more on the linkCONNECT Modems

quikCONNECT ZEST

Low Cost 2G / 3G Modem

- » RS232 and USB* serial port interface
- » Python script for customer application development
- » GPRS EU coverage
- » Dual band 900 / 1800MHz
- » Supply voltage capability 6-18 / 21V
- » AT command driven
- » Wall or DIN rail mountable
- » Compact size
- » 105 grams weight



The quikCONNECT ZEST is an entry level industrial cellular modem, with serial RS232 and USB* ports, offering key functionality within a rugged plastic enclosure. The quikCONNECT ZEST is ideal for M2M applications requiring a simple but reliable modem for GPRS data connection, using either a standard RS232 or USB* interface. The USB port is used for sending / receiving data, but in addition can be used for supplying power. The quikCONNECT ZEST is a dual band GPRS modem providing EU coverage, for the EMEA and APAC regions. Further configurations including global quad band GPRS and 3G / UMTS are also available on request.

Despite its highly competitive price, the quikCONNECT ZEST is built to the same exacting standards as the rest of the Siretta modem family. The quikCONNECT ZEST will be a popular choice for many situations requiring just GPRS connectivity, and the flexible 6-18V power supply and a -40°C to +85°C operating temperature range allow the product to be used in most industrial applications.

* USB data port is only available on UMTS model.

quikCONNECT ZETA

Fully Featured 2G / 3G / 4G Modem

- » RS232 serial port interface
- » USB serial port interface
- » GPRS global coverage
- » GPRS class 10
- » 5 GPIO lines
- » Wide supply voltage capability 5-42 / 60V
- » AT command driven
- » Compact size
- » 101 grams weight



The quikCONNECT ZETA range of GPRS modems offer advanced performance at a low cost, with a convenient RS232 interface. The range is suitable for a wide range of applications, and has been extensively tested for robust reliable performance. With an installation base at many large organisations, and in public spaces, the quikCONNECT ZETA has built up a solid reputation for low cost, dependable performance over a number of years.

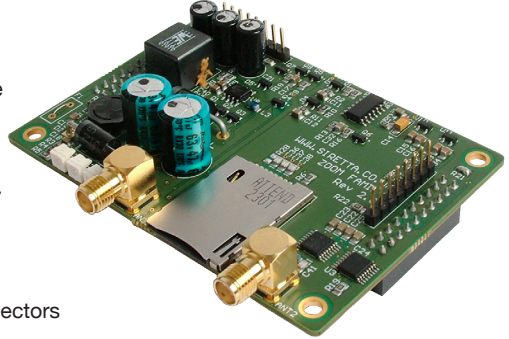
Capable of operating in the most demanding environments, the quikCONNECT ZETA modems are ideally suited to M2M applications including remote monitoring and vehicles. A high level of cellular functions in a compact plug 'n' play housing allow simple integration into your system. With its small size and advanced set of features it fits perfectly into a wide range of devices and applications.

quikCONNECT ZOOM

Embedded 2G / 3G / 4G Socket Modem



- » TTL or RS232 serial port interface
- » USB serial port interface
- » GPRS or 3G / UMTS global coverage
- » Available with GPS receiver
- » 10 GPIO lines
- » Wide supply voltage capability 5-42V
- » AT command driven
- » Compact size
- » Simple mounting by 2 x 20 way connectors
- » EVK development board available



The quikCONNECT ZOOM series of GPRS and 3G / UMTS socket modems are fully designed, developed and ready to integrate into your equipment, easily, and with a low overall cost.

The quikCONNECT ZOOM series answers the need for an economic, fully functional and tested cellular modem platform that can be easily incorporated into your equipment with little knowledge of modem technology. With a highly plug 'n' play design, the quikCONNECT ZOOM offers a common platform across the range, enabling all technologies to be evaluated easily.

The quikCONNECT ZOOM socket modems are designed to be plugged onto your own PCB via standard 2 x 20 way connectors. The two connectors incorporate TTL or RS232 interfaces, USB interface, 10 GPIO lines and power. The quikCONNECT ZOOM series also has an unusually wide power supply capability of 5-42V, enabling compatibility with a wide range of applications.

quikCONNECT ZULU

*Advanced 2G / 3G / 4G USB Modem with
210 MIPS ARM Processor*

- » USB serial port interface
- » RS232 serial port interface
- » GPRS, 3G / UMTS or 4G / LTE coverage
- » Available with GPS receiver
- » ARM Cortex M4 32bit processor
- » 10 GPIO lines
- » Wide supply voltage capability 5-42V
- » ADC, CAN, 1-wire and I²C interfaces
- » DIN rail mountable
- » 2000mAh battery option
- » EVK development board available
- » Convenient 36 way multi interface connector



The quikCONNECT ZULU range of modems are amongst the most advanced and capable available today. The range is available as two main versions - with or without GPS. Further options include a 2000mAh battery and an upgrade of flash memory to a total of 128Mbit. The quikCONNECT ZULU range can be used as a simple modem, or with application software within the GPRS / UMTS / LTE module. But its real strength, for the user, is as a comprehensive computing platform using its ARM Cortex M4 32bit processor connected to the wireless engine - all in one package. The quikCONNECT ZULU design has been extensively tested and represents amazing value as a GPRS / UMTS / LTE connected powerful 32bit computing device.

The quikCONNECT ZULU modems have an ARM Cortex M4 32bit processor as standard, independent of the wireless module, for customers to develop their software on. The quikCONNECT ZULU has both USB and RS232 serial ports with 10 GPIO lines as standard. The quikCONNECT ZULU is housed in a tough plastic enclosure that is either screw or DIN rail mountable.

quikCONNECT ZEUS

Advanced 2G / 3G / 4G Ethernet Modem Router

- » 10/100 Ethernet interface
- » RS232 serial port interface
- » GPRS, 3G / UMTS or 4G / LTE coverage
- » Available with GPS receiver
- » ARM Cortex M4 32bit processor
- » 10 GPIO lines
- » Wide supply voltage capability 5-42V
- » ADC, CAN, 1-wire and I²C interfaces
- » DIN rail mountable
- » 2000mAh battery option
- » EVK development board available
- » Convenient 36 way multi interface connector



The quikCONNECT ZEUS range of 3G / UMTS modems are amongst the most advanced and capable modems available today. The range is available as two main versions - with or without GPS. Further options include a 2000mAh battery and an upgrade of flash memory to a total of 128Mbit. The quikCONNECT ZEUS range can be used as a simple modem or with application software within the UMTS module. But its real strength, for the user, is as a comprehensive computing platform using its ARM Cortex M4 32bit processor connected to the UMTS engine - all in one package. The quikCONNECT ZEUS design has been extensively tested and represents amazing value as a UMTS connected powerful 32bit computing engine.

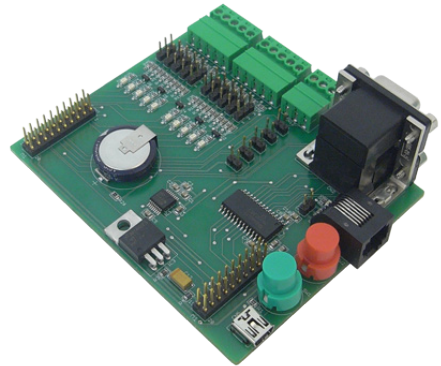
The quikCONNECT ZEUS modems have an ARM Cortex M4 32bit processor as standard, independent of the wireless module, for customers to develop their software on. The quikCONNECT ZEUS has an Ethernet port, an RS232 serial port and 10 GPIO lines as standard. The quikCONNECT ZEUS is housed in a tough plastic enclosure that is either screw or DIN rail mountable.

quikCONNECT ZOOM-EVK Board

Modem Development for ZOOM



- » Development platform
- » Plugs directly onto ZOOM module
- » Ideal prototyping kit



The quikCONNECT ZOOM-EVK evaluation and development board is the perfect way of getting to know the quikCONNECT ZOOM series of socket modems, and building an application for integration into your equipment. The quikCONNECT ZOOM modem plugs directly onto the EVK providing convenient access to all of the quikCONNECT ZOOM interfaces via the EVK's D-Sub, USB and terminal block connectors. This includes the TTL, RS232 and USB interfaces, allowing you to control the modem from a connected PC or embedded micro controller.

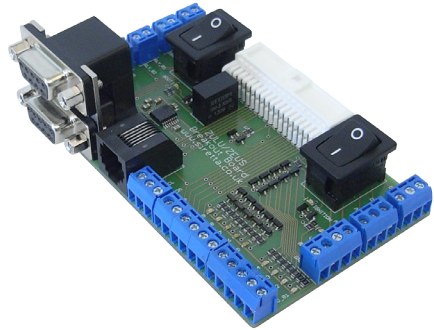
The quikCONNECT ZOOM-EVK board comes complete with a multi region power supply, RS232/USB cables, our Delta 2A GSM antenna and the Mike 3A GPS antenna, providing all the components for a working system - just add your choice of quikCONNECT ZOOM modem.

quikCONNECT ZULU / ZEUS-EVK Board

Modem Development for ZULU / ZEUS



- » Development platform
- » Includes accessories and antennas
- » Ideal prototyping kit



The quikCONNECT ZULU/ZEUS-EVK evaluation and development board is the perfect way of working with the quikCONNECT ZULU/ZEUS modems, and developing an application within the ARM Cortex processor. The EVK provides simple and convenient access to the ZULU/ZEUS interfaces through standard D-Sub and terminal block connectors.

The quikCONNECT ZULU/ZEUS-EVK board also comes complete with a multi region power supply, 36way interface cable, RS232/USB (quikCONNECT ZULU) or RS232/Ethernet (quikCONNECT ZEUS) cables, a JTAG programming cable, our Delta 2A GSM antenna and the Mike 3A GPS antenna, providing all the components for a working system - just add your choice of quikCONNECT ZULU/ZEUS modem.

Accessories

quikCONNECT Modem Accessories

| | | Frequencies | | | | | | |
|-----------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------|---------------|------|------|------|---|
| | | ZEST | ZETA GPRS | ZETA UIMTS V2 | ZOOM | ZULU | ZEUS | |
| | Part No | Description | | | | | | |
| Power | 32889 PSU MULTI ADAPTOR | Compact power supply with interchangeable connectors for UK, EU, US and Australian standard mains voltage connection | | • | • | • | • | • |
| | 31557 POWER CABLE | Power cable with open end for termination to user power supply, 1Mtr long | | • | • | • | • | • |
| | 34677 ZEST PSU MULTI ADAPTOR | Compact power supply with interchangeable connectors for UK, EU, US and Australian standard mains voltage connection | • | | | | | |
| Interface | 29284 RS232 CABLE | Standard RS232 interface cable, male to female, 2Mtrs long | • | • | • | • | • | • |
| | 29891 RS232 TO USB CABLE | RS232 male to USB-A interface cable, 1.5Mtrs long | | • | | | | |
| | 33481 USB GPIO CABLE | Mini USB right angle interface cable with other end stripped and tinned for GPIO connection, 1Mtr long | | • | | | | |
| | 34777 GPIO CABLE 10 WAY 0.5M | Connection cable for 10 position GPIO, 0.5Mtrs long | | | • | | | |
| | 34436 USB CABLE | Standard USB interface cable, USB-A to USB Mini-B, 2Mtrs long | • | | • | • | • | |
| | 29286 CAT5E ETHERNET CABLE | Standard RJ-45 Ethernet cable, 1Mtr long | | | | | | • |
| | 34212 INTERFACE CABLE 36 WAY 0.5M | Connection cable for 36 position multi interface, 0.5Mtrs long | | | | | • | • |
| | 34218 INTERFACE CABLE 36 WAY 1M | Connection cable for 36 position multi interface, 1Mtr long | | | | | • | • |
| Other | 34388 JTAG PROGRAMMING CABLE | Programming cable for JTAG port connection, terminated to 20 way JTAG header | | | | | • | • |
| | 33755 2AH BATTERY | Retrofittable 2000mAh battery for backup power security | | | | | • | • |

Product Comparison

Matrix of Siretta quikCONNECT Modems

| | Software | | Interfaces | | | | | | | | | | Frequencies | | | | | |
|--------------------|----------|-------------|------------|-----|----------|-----|-----|-----|-----|--------|-----|-----|-------------|-----------|---|---|----------|--|
| | IP Stack | AT Commands | RS232 | USB | Ethernet | TTL | ADC | DAC | CAN | 1-Wire | I2C | GPS | 2G / GPRS | 3G / UMTS | | | 4G / LTE | |
| • Standard Feature | | | | | | | | | | | | | | | | | | |
| o Option | | | | | | | | | | | | | | | | | | |
| ZEST-N-GPRS (EU) | • | • | • | - | - | - | - | - | - | - | - | - | • | - | - | - | - | |
| ZEST-N-UMTS (EU) | • | • | • | • | - | - | - | - | - | - | - | - | • | - | - | - | - | |
| ZETA-N-GPRS | • | • | • | - | - | - | - | - | - | - | - | - | • | • | - | - | - | |
| ZETA-G-GPRS | • | • | • | • | - | - | 1 | - | - | - | - | • | • | - | - | - | - | |
| ZETA-N-UMTS | • | • | • | • | - | - | 1 | - | - | - | - | - | • | • | • | • | • | |
| ZETA-G-UMTS | • | • | • | • | - | - | 1 | - | - | - | - | • | • | • | • | • | • | |
| ZETA-G-LTE (EU) | • | • | • | • | - | - | 1 | - | - | - | - | • | - | - | • | • | • | |
| ZOOM-N-GPRS | • | • | o | • | - | • | 1 | - | - | - | - | - | • | • | - | - | • | |
| ZOOM-G-GPRS | • | • | o | • | - | • | 1 | - | - | - | - | • | • | - | - | • | - | |
| ZOOM-N-UMTS | • | • | o | • | - | • | 1 | - | - | - | - | - | • | • | • | • | • | |
| ZOOM-G-UMTS | • | • | o | • | - | • | 1 | - | - | - | - | • | • | • | • | • | • | |
| ZOOM-N-LTE (EU) | • | • | o | • | - | • | 1 | - | - | - | - | - | • | - | • | - | • | |
| ZOOM-G-LTE (EU) | • | • | o | • | - | • | 1 | - | - | - | - | • | • | - | • | - | • | |
| ZULU-N-GPRS | • | • | • | • | - | - | 2 | 2 | • | • | • | - | • | • | - | - | • | |
| ZULU-G-GPRS | • | • | • | • | - | - | 2 | 2 | • | • | • | • | • | • | - | - | • | |
| ZULU-N-UMTS | • | • | • | • | - | - | 2 | 2 | • | • | • | - | • | • | • | • | • | |
| ZULU-G-UMTS | • | • | • | • | - | - | 2 | 2 | • | • | • | • | • | • | • | • | • | |
| ZULU-N-LTE (EU) | • | • | • | • | - | - | 2 | 2 | • | • | • | - | • | - | • | - | • | |
| ZULU-G-LTE (EU) | • | • | • | • | - | - | 2 | 2 | • | • | • | • | • | - | • | - | • | |
| ZEUS-N-GPRS | • | • | • | - | • | - | 2 | 2 | • | • | • | - | • | • | - | - | • | |
| ZEUS-G-GPRS | • | • | • | - | • | - | 2 | 2 | • | • | • | • | • | • | - | - | • | |
| ZEUS-N-UMTS | • | • | • | - | • | - | 2 | 2 | • | • | • | - | • | • | • | • | • | |
| ZEUS-G-UMTS | • | • | • | - | • | - | 2 | 2 | • | • | • | • | • | • | • | • | • | |
| ZEUS-N-LTE (EU) | • | • | • | - | • | - | 2 | 2 | • | • | • | - | • | - | • | - | • | |
| ZEUS-G-LTE (EU) | • | • | • | - | • | - | 2 | 2 | • | • | • | • | • | - | • | - | • | |

| GPIO | | | | | Other | | | | | Power | | |
|-------------------------|---------------------|--------------------|---------------------|------------|---------------------------|--------|---------------|-----------------------|-------------------|--------------|-----------------|----------------|
| ARM Cortex M4 Processor | GPIO (Input/Output) | GPIO Input Voltage | GPIO Output Voltage | 0.6A Relay | Dimensions L x H x D (mm) | Weight | Accelerometer | Operating Temperature | DIN Rail Mounting | Power Supply | 2000mAh Battery | USB Charging * |
| - | - | - | - | - | 75 x 85 x 28 | 105g | - | -40 to 80°C | • | 6-18V | - | - |
| - | - | - | - | - | 75 x 85 x 28 | 105g | - | -40 to 80°C | • | 6-18V | - | - |
| - | 5 | 35V | 3.3V | - | 93 x 67 x 28 | 101g | - | -40 to 85°C | - | 5-60V | - | - |
| - | 5 | 35V | 3.3V | - | 93 x 67 x 28 | 101g | - | -40 to 85°C | - | 5-60V | - | - |
| - | 5 (4/1) | 35V | 0-42V | - | 93 x 67 x 28 | 101g | - | -30 to 80°C | - | 5-60V | - | - |
| - | 5 (4/1) | 35V | 0-42V | - | 93 x 67 x 28 | 105g | - | -30 to 80°C | - | 5-60V | - | - |
| - | 10 (4/6) | 3.3V | 3.3V | - | 85 x 60 x 24 | 54g | - | -30 to 80°C | - | 5-42V | - | - |
| - | 10 (4/6) | 3.3V | 3.3V | - | 85 x 60 x 24 | 54g | - | -30 to 80°C | - | 5-42V | - | - |
| - | 10 (4/6) | 3.3V | 3.3V | - | 85 x 60 x 24 | 54g | - | -30 to 80°C | - | 5-42V | - | - |
| - | 10 (4/6) | 3.3V | 3.3V | - | 85 x 60 x 24 | 54g | - | -30 to 80°C | - | 5-42V | - | - |
| - | 10 (4/6) | 3.3V | 3.3V | - | 85 x 60 x 24 | 54g | - | -30 to 80°C | - | 5-42V | - | - |
| - | 10 (4/6) | 3.3V | 3.3V | - | 85 x 60 x 24 | 54g | - | -30 to 80°C | - | 5-42V | - | - |
| • | 9 (5/4) | 35V | 0-42V | • | 134 x 74 x 33 | 125g | • | -30 to 80°C | • | 5-42V | o | • |
| • | 9 (5/4) | 35V | 0-42V | • | 134 x 74 x 33 | 125g | • | -30 to 80°C | • | 5-42V | o | • |
| • | 9 (5/4) | 35V | 0-42V | • | 134 x 74 x 33 | 125g | • | -30 to 80°C | • | 5-42V | o | • |
| • | 9 (5/4) | 35V | 0-42V | • | 134 x 74 x 33 | 125g | • | -30 to 80°C | • | 5-42V | o | • |
| • | 9 (5/4) | 35V | 0-42V | • | 134 x 74 x 33 | 125g | • | -30 to 80°C | • | 5-42V | o | • |
| • | 9 (5/4) | 35V | 0-42V | • | 134 x 74 x 33 | 125g | • | -30 to 80°C | • | 5-42V | o | • |
| • | 9 (5/4) | 35V | 0-42V | • | 134 x 74 x 33 | 143g | • | -30 to 80°C | • | 5-42V | o | - |
| • | 9 (5/4) | 35V | 0-42V | • | 134 x 74 x 33 | 143g | • | -30 to 80°C | • | 5-42V | o | - |
| • | 9 (5/4) | 35V | 0-42V | • | 134 x 74 x 33 | 143g | • | -30 to 80°C | • | 5-42V | o | - |
| • | 9 (5/4) | 35V | 0-42V | • | 134 x 74 x 33 | 143g | • | -30 to 80°C | • | 5-42V | o | - |
| • | 9 (5/4) | 35V | 0-42V | • | 134 x 74 x 33 | 143g | • | -30 to 80°C | • | 5-42V | o | - |
| • | 9 (5/4) | 35V | 0-42V | • | 134 x 74 x 33 | 143g | • | -30 to 80°C | • | 5-42V | o | - |

linkCONNECT Modems

2G / 3G / 4G Self Managed Modems

- » Auto detection of network (standard for UK networks – on demand for other country networks)
- » Agnostic of equipment and operating systems connected to it
- » Auto connect / reconnect to network
- » Intelligent modem – automatically delivers all data presented to it – (bi-directional)
- » Simple to set up and configure via text commands
- » Adds GSM connectivity to dumb equipment – simply
- » Reliable, automatically connected cellular connection under all network conditions.
- » Adds GSM connectivity with no change to the connected equipment (no additional CE approval required to connected equipment)

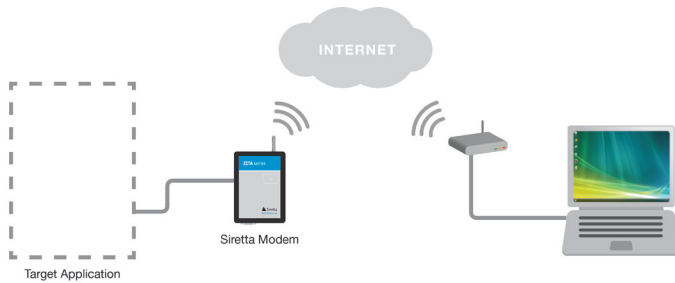


Standard GSM modems need to be controlled by the equipment they are attached to. The developer of the equipment needs to take care of many things when using a standard GSM modem many of which are not obvious, take time and change with different networks.

linkCONNECT modems automatically handle:

- The modem being randomly disconnected by the network – reconnecting automatically.
- Auto detection of the network it is connecting to and the connection.
- The particular requirements of connected equipment.
- Connecting older equipment, with limited or no computing, to the GSM network – without any change to the connected equipment.
- Configuring of the modem in the field by SMS command

The above difficulties and more are what we see everyday in nearly all situations where a GSM modem is or would like to be used...



As a result we have developed the linkCONNECT series of modems which handles all of these problems and issues and more. linkCONNECT modems control themselves, as supplied and are agnostic of what is connected to them. We have dealt with all common problems GSM connection problems so that linkCONNECT modems are simplicity to use with any application requiring GSM connectivity.

linkCONNECT modems are based on our reliable and well proven quikCONNECT modem range (ZEST, ZETA, ZOOM etc) coupled with our V-link software to make an unbeatable range of smart, always connected, self managing modems in 2, 3 and 4G technologies.

Typical linkCONNECT modem solutions

- » Factory automation
- » Distribution control system
- » Point to point data pipe
- » Remote temp or environmental logging
- » Remote printing
- » Door entry system



SNYPER

2G / 3G Cellular Signal and Network Analyser

- » 2G / 3G coverage versions
- » Summary feature for consolidated view of network data
- » Large easy to read LCD display
- » Operates without SIM
- » Logical menus and operation
- » Long life rechargeable battery
- » USB battery charger included
- » Rugged and durable construction
- » Supplied in a hard carrying case



The SNYPER is a high performance signal and network analyser for the 2G / GPRS and 3G / UMTS networks, with a host of important features for the busy engineer and installer. Building on our many years of signal tester experience, the new SNYPER utilises the same design platform used in our advanced wireless modems to provide market leading performance and functionality, at a highly competitive price.

Used as an invaluable tool for the surveying and commissioning of wireless systems, the SNYPER can perform a number of different functions to determine optimum antenna placement, performance of existing installations or choice of network operator. As an example, the SNYPER can determine the strength of a particular network signal, or can review all available network signals in the area of use, and rank these in order of strength through its summary page. The summary page is an incredibly powerful feature allowing network operator choice to be made based on both signal strength and number of usable cells, with all data visible concurrently. The SNYPER also has a number of signal strength thresholds within the summary page, providing a more concise view where only signals above a certain dB level are of interest.

About Antennas

Siretta Antennas was formed to design, manufacture and supply the widest range of antennas for the wireless M2M market. Covering many frequencies and mounting methods, Siretta also provides customised antenna solutions ensuring all of our customers' needs are fulfilled.

Thriving on excellent customer service, Siretta offers short lead times, competitive prices and round the clock technical support.



For more information contact:

+44 (0)118 976 9014

airCONNECT Antenna Ranges

Breakdown of airCONNECT Antennas by Range



When searching for your antenna solution, we have organised our antennas into different ranges depending on mounting methods within popular wireless technologies which makes selecting your ideal antenna easy.

| | |
|--------------------|--------------------------------------------------------------------------------------------------------------|
| Alpha Range | Self-adhesive range of antennas, great for attaching inside vehicles and enclosures where they are not seen. |
| Delta Range | Knuckle joint, stub, right angle stub and whip antennas, perfect for direct connection into your equipment. |
| Echo Range | PCB or ceramic types of embedded antennas suitable for system integration. |
| Mike Range | Magnetic base range of antennas, great for temporary installations on metal surfaces. |
| Oscar Range | External or wall mount range of antennas for static locations. |
| Tango Range | Through hole mount antennas with a stud and nut, suitable for fixing onto panels. |

Within these families you will find different variations of antennas including sizing and frequencies. All of our antennas are able to be customized to fit your specification, whether it is changing the connector type or increasing the length of cable – Siretta are here to help.

Alpha Range - Self Adhesive

| Antenna | GSM | UMTS | LTE | GPS | ISM | WiFi | Combined | Page/s |
|-------------------------------------------------------------------------------------------------|-----|------|-----|-----|-----|------|----------|----------|
| Alpha 1A  | • | • | | | | • | | 35 59 |
| Alpha 3A  | • | • | | | | • | | 35 59 |
| Alpha 4A  | | | | • | | | | 47 |
| Alpha 6  | • | | | • | | | • | 51 |
| Alpha 7  | • | | | • | | | • | 51 |
| Alpha 8  | • | • | | | • | | | 35 55 |
| Alpha 9  | • | | | • | | | • | 51 |
| Alpha 10  | | | | | | • | | 59 |
| Alpha 11  | • | • | | | • | | | 36 |
| Alpha 14  | • | • | | | • | | | 36 |
| Alpha 15  | • | • | | | • | | | 36 |

| Antenna | GSM | UMTS | LTE | GPS | ISM | WiFi | Combined | Page/s |
|-----------------------------------------------------------------------------------------------|-----|------|-----|-----|-----|------|----------|--------|
| Alpha 16  | | | | | | • | | 37 |
| Alpha 18  | • | • | | | | | | 37 |




Delta Range - Direct Connect

| Antenna | GSM | UMTS | LTE | GPS | ISM | WiFi | Combined | Page/s |
|-------------------------------------------------------------------------------------------------|-----|------|-----|-----|-----|------|----------|----------|
| Delta 1A  | • | • | | | | | | 35 55 |
| Delta 1C  | • | | | | | | | 37 |
| Delta 2A  | • | • | | | | | | 38 55 |
| Delta 2C  | • | | | | | | | 38 |
| Delta 5  | | | | | | • | | 56 |
| Delta 5A  | | | | | | • | | 56 |
| Delta 6A  | • | • | | | | | | 38 |





| Antenna | GSM | UMTS | LTE | GPS | ISM | WiFi | Combined | Page/s |
|--------------------------------------------------------------------------------------------------|-----|------|-----|-----|-----|------|----------|--------|
| Delta 6B  | | | | | | • | | 60 |
| Delta 6C  | | | | | | • | | 60 |
| Delta 7A  | | | | | | • | | 61 |
| Delta 7B  | • | • | | | | | | 39 |
| Delta 8A  | | | | | | • | | 61 |
| Delta 11  | | | | | | • | | 56 |
| Delta 12  | | | | | | • | | 57 |
| Delta 12A  | | | | | | • | | 57 |
| Delta 12B  | | | | | | • | | 57 |
| Delta 14  | | | | | | • | | 61 |
| Delta 15  | | | | | | • | | 62 |

Echo Range - Embedded








| Antenna | GSM | UMTS | LTE | GPS | ISM | WiFi | Combined | Page/s |
|---------------------------------------------------------------------------------------------|-----|------|-----|-----|-----|------|----------|----------|
| Echo 1A  | • | • | | | | | | 39 |
| Echo 2  | • | • | | | • | • | | 39 62 |
| Echo 5  | | | | • | | | | 47 |
| Echo 11  | | | | | | • | | 62 |
| Echo 12  | • | • | | | | | | 40 |
| Echo 14  | • | • | • | | • | | | 40 58 |
| Echo 17  | | | | | | • | | 63 |
| Echo 18  | | | | | | • | | 63 |
| Echo 19  | | | | • | | | | 47 |
| Echo 26  | | | | • | | | | 48 |
| Echo 27  | | | | • | | | | 48 |

| Antenna | GSM | UMTS | LTE | GPS | ISM | WiFi | Combined | Page/s |
|----------------------------------------------------------------------------------------------|-----|------|-----|-----|-----|------|----------|--------|
| Echo 28  | | | | | | • | | 63 |
| Echo 29  | | | | | | • | | 64 |
| Echo 30  | • | • | | | | | | 40 |



Mike Range - Magnetic Mount

| Antenna | GSM | UMTS | LTE | GPS | ISM | WiFi | Combined | Page/s |
|------------------------------------------------------------------------------------------------|-----|------|-----|-----|-----|------|----------|--------|
| Mike 1A  | • | • | | | | | | 41 |
| Mike 1B  | • | | | | • | | | 41 |
| Mike 2A  | • | • | | | | | | 41 |
| Mike 3A  | | | | • | | | | 48 |

Oscar Range - Wall Mount

| Antenna | GSM | UMTS | LTE | GPS | ISM | WiFi | Combined | Page/s |
|------------------------------------------------------------------------------------------------|-----|------|-----|-----|-----|------|----------|--------|
| Oscar 1  | • | • | | | • | | | 42 |
| Oscar 1A  | • | • | | | | | | 42 |
| Oscar 3A  | • | | | | | | | 42 |
| Oscar 16  | • | | | | | | | 43 |
| Oscar 17  | • | • | | | | | | 43 |
| Oscar 18  | • | • | | | | • | | 43 |
| Oscar 20  | • | • | • | | | | | 44 |

Tango Range - Through Hole

| Antenna | GSM | UMTS | LTE | GPS | ISM | WiFi | Combined | Page/s |
|------------------------------------------------------------------------------------------------|-----|------|-----|-----|-----|------|----------|--------|
| Tango 1  | • | • | | | | | | 44 |
| Tango 2  | • | • | | | | • | | 64 |

Tango Range - Through Hole

| Antenna | GSM | UMTS | LTE | GPS | ISM | WiFi | Combined | Page/s |
|--------------------------------------------------------------------------------------------------|-----|------|-----|-----|-----|------|----------|--------|
| Tango 6A  | • | | | • | | | • | 52 |
| Tango 6B  | • | | | • | | • | • | 52 |
| Tango 11A  | • | • | | | | | | 44 |
| Tango 14  | • | • | | | | | | 45 |
| Tango 15  | • | | | • | | | • | 52 |
| Tango 16  | • | | | • | | | • | 53 |
| Tango 17  | • | • | | | | | | 45 |
| Tango 18  | • | • | | | | | | 45 |
| Tango 19  | • | | | • | | | • | 53 |
| Tango 20  | | | | • | | | | 49 |
| Tango 20A  | | | | • | | | | 49 |

| Antenna | GSM | UMTS | LTE | GPS | ISM | WiFi | Combined | Page/s |
|-------------------------------------------------------------------------------------------------|-----|------|-----|-----|-----|------|----------|--------|
| Tango 21  | | | | • | | | | 49 |
| Tango 22  | • | • | | • | | • | • | 53 |
| Tango 23  | | | | | | • | | 64 |
| Tango 24  | | | | | | • | | 65 |
| Tango 25  | | | | | | • | | 65 |
| Tango 25A  | | | | | | • | | 65 |
| Tango 26  | | | | | | • | | 66 |
| Tango 27  | • | • | | | | | | 45 |
| Tango 32  | • | • | | • | | | • | 54 |
| Tango 33  | • | • | | | | | | 46 |
| Tango 34  | • | | | | | | | 46 |

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

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



DIRECT CONNECT

Delta 2A - Right Angle 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 | 53 x 7.3mm |
| Connector | SMA male |

DIRECT CONNECT

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 |

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



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 |

EMBEDDED

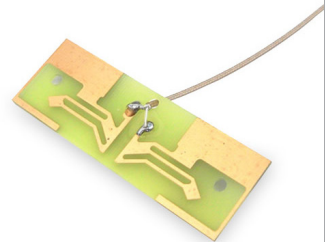


Cable length and connector as required

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

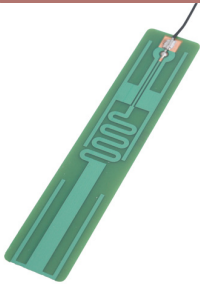


Cable length and connector as required

EMBEDDED

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


Cable length and connector as required

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


Cable length and connector as required

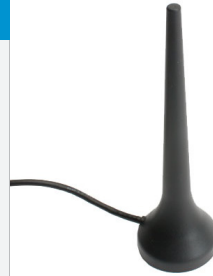
Echo 30 - PCB Antenna

| | |
|----------------|---------------------------------|
| Frequencies | 850, 900, 1800, 1900MHz, 2.1GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain | 2dBi |
| VSWR | <3.0 |
| Polarization | Linear |
| Size | 40 x 6.7 x 1.2mm |
| Cable | 1.13mm Coax |

Mike 1A - $\frac{1}{4}$ Wave Antenna

| | |
|----------------|---------------------------------|
| Frequencies | 850, 900, 1800, 1900MHz, 2.1GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain | 2dBi |
| VSWR | <2:1 |
| Polarization | Vertical |
| Size | 105 x 32mm |
| Cable | RG174 |

MAGNETIC MOUNT

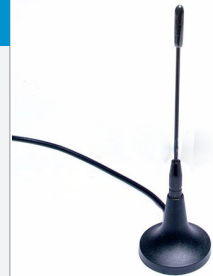


Cable length and connector as required

Mike 1B - $\frac{1}{4}$ Wave Antenna

| | |
|----------------|------------------------------|
| Frequencies | 850, 868, 900, 1800, 1900MHz |
| Operating temp | -45 to +75°C |
| Impedance | 50 ohm |
| Gain | 3.5dBi |
| VSWR | <1.5:1 |
| Polarization | Vertical |
| Size | 95 x 30mm |
| Cable | RG174 |

MAGNETIC MOUNT

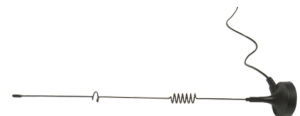


Cable length and connector as required

Mike 2A - $\frac{1}{2}$ Wave Antenna

| | |
|----------------|-------------------------------|
| Frequencies | 850, 900, 1800, 1900, 2100MHz |
| Operating temp | -40 to +75°C |
| Impedance | 50 ohm |
| Gain | 5dBi |
| VSWR | <2:1 |
| Polarization | Vertical |
| Size | 311mm |
| Cable | RG174 |

MAGNETIC MOUNT



Cable length and connector as required

WALL MOUNT


Cable length and connector as required

Oscar 1 - Bracket Antenna (IP67)

| | |
|----------------|-------------------------|
| Frequencies | 850, 900, 1800, 1900MHz |
| Operating temp | -30 to +80°C |
| Impedance | 50 ohm |
| Gain | 11dBi |
| VSWR | <1.6 |
| Polarization | Vertical |
| Size | 570 x 180 x 36mm |
| Connector | TNC female |

WALL MOUNT


Cable length and connector as required

Oscar 1A - Bracket Antenna

| | |
|----------------|---------------------------------|
| Frequencies | 850, 900, 1800, 1900MHz, 2.1GHz |
| Operating temp | -30 to +70°C |
| Impedance | 50 ohm |
| Gain | 5dBi |
| VSWR | <1.8:1 |
| Polarization | Vertical |
| Size | 151 x 3 x 284mm |
| Connector | TNC female |

WALL MOUNT


Cable length and connector as required

Oscar 3A - Yagi Antenna

| | |
|----------------|-------------------------|
| Frequencies | 850, 900, 1800, 1900MHz |
| Operating temp | -30 to +80°C |
| Impedance | 50 ohm |
| Gain | 11dBi |
| VSWR | <1.6 |
| Polarization | Vertical |
| Size | 570 x 180 x 36mm |
| Connector | TNC female |

Oscar 16 - Yagi Antenna

| | |
|----------------|-------------------------|
| Frequencies | 850, 900, 1800, 1900MHz |
| Operating temp | -30 to +70°C |
| Impedance | 50 ohm |
| Gain | 12dBi |
| VSWR | <2:1 |
| Polarization | Vertical/Horizontal |
| Size | 170 x 35 x 147mm |
| Cable | RG58 |

WALL MOUNT



Cable length and connector as required

Oscar 17 - Omnidirectional Antenna

| | |
|----------------|----------------------------|
| Frequencies | 900, 1800, 1900MHz, 2.1GHz |
| Operating temp | -40 to +80°C |
| Impedance | 50 ohm |
| Gain | 10dBi |
| VSWR | <1.6 |
| Polarization | Linear Vertical |
| Size | ∅34 x 850mm |
| Connector | TNC female |

WALL MOUNT



Cable length and connector as required

Oscar 18 - Yagi Antenna

| | |
|----------------|--------------------------------------|
| Frequencies | 850, 900, 1800, 1900MHz, 2.1, 2.4GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain | 10dBi |
| VSWR | <2.0:1 |
| Polarization | Vertical/Horizontal |
| Size | 294 x 210 x 85mm |
| Connector | N-Type female |

WALL MOUNT



Cable length and connector as required

WALL MOUNT


Cable length and connector as required

Oscar 20 - Yagi Antenna

| | |
|----------------|--------------------------------------|
| Frequencies | 850, 900, 1800, 1900MHz, 2.1, 2.6GHz |
| Operating temp | -30 to +70°C |
| Impedance | 50 ohm |
| Gain | 7 - 8dB |
| VSWR | 2.0:1 |
| Polarization | Vertical |
| Size | 170 x 35 x 147mm |
| Cable | RG58 |

THROUGH HOLE


Cable length and connector as required

Tango 1 - Low Profile Antenna

| | |
|----------------|---------------------------------|
| Frequencies | 850, 900, 1800, 1900MHz, 2.1GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain | 2dBi |
| VSWR | <1.5:1 |
| Polarization | Vertical |
| Size | 95 x 42 x 17mm |
| Cable | RG174 |

THROUGH HOLE


Cable length and connector as required

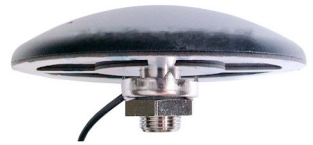
Tango 11A - Puck Antenna (IP67)

| | |
|----------------|---------------------------------|
| Frequencies | 850, 900, 1800, 1900MHz, 2.1GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain | 3dBi |
| VSWR | <1.8 |
| Polarization | Linear vertical |
| Size | Ø80 x 23mm |
| Cable | RG174 |

Tango 14 - Low Profile Antenna (IP65)

| | |
|----------------|---------------------------------|
| Frequencies | 850, 900, 1800, 1900MHz, 2.1GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain | 2.15dB |
| VSWR | <2:1 |
| Polarization | Vertical |
| Size | ∅94 x 18mm |
| Cable | RG174 |

THROUGH HOLE



Cable length and connector as required

Tango 17 - Waterproof Antenna (IP67)

| | |
|----------------|---------------------------------|
| Frequencies | 850, 900, 1800, 1900MHz, 2.1GHz |
| Operating temp | -40 to +80°C |
| Impedance | 50 ohm |
| Gain | 2dBi |
| VSWR | <2 |
| Polarization | Linear |
| Size | ∅68 x 35mm |
| Cable | RG174 |

THROUGH HOLE



Cable length and connector as required

Tango 18 - 1/2 Wave Antenna (IP67)

| | |
|----------------|---------------------------------|
| Frequencies | 850, 900, 1800, 1900MHz, 2.1GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain | 4dBi |
| VSWR | <1.8:1 |
| Polarization | Vertical |
| Size | 320mm |
| Cable | RG174 |

THROUGH HOLE



Cable length and connector as required

THROUGH HOLE


Cable length and connector as required

Tango 27 - Puck Antenna (IP67)

| | |
|----------------|---------------------------------|
| Frequencies | 850, 900, 1800, 1900MHz, 2.1GHz |
| Operating temp | -30 to +65°C |
| Impedance | 50 ohm |
| Gain | 2.16dBi |
| VSWR | ≤2 : 1 |
| Polarization | |
| Size | ∅46 x 15mm |
| Cable | RG174 |

THROUGH HOLE


Cable length and connector as required

Tango 33 - Hinged Antenna

| | |
|----------------|---------------------------------|
| Frequencies | 850, 900, 1800, 1900MHz, 2.1GHz |
| Operating temp | -45 to +75°C |
| Impedance | 50 ohm |
| Gain | 5dBi |
| VSWR | ≤2 |
| Polarization | Vertical |
| Size | 266mm |
| Cable | RG178 |

THROUGH HOLE


Cable length and connector as required

Tango 34 - Stubby Antenna

| | |
|----------------|-------------------------|
| Frequencies | 850, 900, 1800, 1900MHz |
| Operating temp | -30 to +75°C |
| Impedance | 50 ohm |
| Gain | 3dBi |
| VSWR | ≤2 |
| Polarization | Vertical |
| Size | ∅29 x 61mm |
| Cable | RG174 |

Alpha 4A - GPS Active Antenna (IP67)

| | |
|----------------|--------------------|
| Frequencies | 1575.42MHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain (LNA) | 26±2dB |
| VSWR | <1.5:1 |
| Polarization | RHCP |
| Size | 37.6 x 33.8 x 13mm |
| Cable | RG174 |

ADHESIVE



Cable length and connector as required

Echo 5 - 13x13mm Active GPS Patch

| | |
|----------------|-------------------|
| Frequency | 1575.42MHz |
| Operating temp | -20 to +65°C |
| Impedance | 50 ohm |
| Gain (LNA) | 18dB |
| VSWR | 1.5:1 |
| Polarization | RHCP |
| Size | 13.4 x 13.4 x 8mm |
| Cable | 1.13mm Coax |

EMBEDDED



Cable length and connector as required

Echo 19 - 10x10mm Active GPS Patch

| | |
|----------------|-----------------|
| Frequencies | 1575.42MHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain (LNA) | 16dB |
| VSWR | 1.8:1 |
| Polarization | RHCP |
| Size | 10 x 10 x 6.2mm |
| Cable | 1.13mm Coax |

EMBEDDED



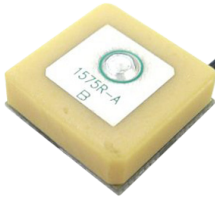
Cable length and connector as required

EMBEDDED


Cable length and connector as required

Echo 26 - 18.6 x 18.6mm Active GPS Patch

| | |
|----------------|---------------------------------------|
| Frequencies | 1575.42MHz (GLONASS option available) |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain (LNA) | 28dB |
| VSWR | <1.5:1 |
| Polarization | Vertical |
| Size | 18.6 x 18.6 x 7.5mm |
| Cable | 1.13mm Coax |

EMBEDDED


Cable length and connector as required

Echo 27 - 15 x 15mm Active GPS Patch

| | |
|----------------|-----------------|
| Frequencies | 1575.42MHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain (LNA) | 22dB |
| VSWR | <1.5:1 |
| Polarization | Vertical |
| Size | 15 x 15 x 7.5mm |
| Cable | 1.13mm Coax |

MAGNETIC MOUNT


Cable length and connector as required

Mike 3A - Dual Mount GPS Antenna (IP67)

| | |
|----------------|----------------|
| Frequencies | 1575.42MHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain (LNA) | 28dB |
| VSWR | 2.0 max |
| Polarization | RHCP |
| Size | 47 x 35 x 17mm |
| Cable | RG174 |

Tango 20 - Low Profile GPS Antenna (IP67)

| | |
|----------------|----------------|
| Frequencies | 1575.42MHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain (LNA) | 28dB |
| VSWR | <1.5 |
| Polarization | RHCP |
| Size | ∅46.6 x 14.5mm |
| Cable | RG174 |

THROUGH HOLE



Cable length and connector as required

Tango 20A - Low Profile GPS/Glonass (IP67)

| | |
|----------------|----------------|
| Frequencies | 1592 +- 3MHz |
| Operating temp | -40 to +85°C |
| Impedance | 50ohm |
| Gain (LNA) | 28dB |
| VSWR | <2.0 |
| Polarization | RHCP |
| Size | ∅46.6 x 14.5mm |
| Cable | RG174 |

THROUGH HOLE



Cable length and connector as required

Tango 21 - GPS Compact Patch Antenna

| | |
|----------------|----------------------|
| Frequencies | 1575.42 MHz |
| Operating temp | -40 to +85°C |
| Impedance | 50ohm |
| Gain (LNA) | 28dB |
| VSWR | <2.0 |
| Polarization | RHCP |
| Size | 30.5 x 30.5 x 13.9mm |
| Cable | RG178 |

THROUGH HOLE



Cable length and connector as required

Alpha 6 - GSM/GPS Puck Antenna (IP68)

| | |
|----------------|----------------------------------|
| Frequencies | 850, 900, 1575.42, 1800, 1900MHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| GPS Gain (LNA) | 28dB |
| GSM Gain | 2dBi @ 900MHz / 1dBi @ 1800MHz |
| VSWR | 2.1 |
| Polarization | GPS - RHCP, GSM - Vertical |
| Size | Ø71 x 14mm |
| Cable | RG174 |

ADHESIVE



Cable length and connector as required

Alpha 7 - GSM/GPS Puck Antenna

| | |
|----------------|----------------------------|
| Frequencies | 900, 1575.42, 1800MHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| GPS Gain (LNA) | 27dB |
| GSM Gain | 0dBi |
| VSWR | <2.0 : 1 |
| Polarization | GPS - RHCP, GSM - Vertical |
| Size | Ø50 x 17.5mm |
| Cable | RG174 |

ADHESIVE



Cable length and connector as required

Alpha 9 - GSM/GPS Puck Antenna

| | |
|----------------|-----------------------|
| Frequencies | 900, 1575.42, 1800MHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| GPS Gain | 27dB (LNA) |
| GSM Gain | 2dBi |
| VSWR | 2.0 max |
| Polarization | RHCP |
| Size | Ø80 x 14mm |
| Cable | RG174 |

ADHESIVE



Cable length and connector as required

THROUGH HOLE



Cable length and connector as required

Tango 6A - GSM/GPS Antenna (IP66)

| | |
|----------------|----------------------------------|
| Frequencies | 850, 900, 1575.42, 1800, 1900MHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| GSM Gain | 2dBi @ 900MHz / 2dBi @ 1800MHz |
| GPS Gain | 28dB (LNA) |
| VSWR | 1.5:1 |
| Polarization | RHCP |
| Size | 88 x 53.8 x 62mm |
| Cable | RG174 |

THROUGH HOLE



Cable length and connector as required

Tango 6B - GSM/GPS/WiFi Antenna (IP66)

| | |
|----------------|----------------------------------------------|
| Frequencies | 850, 900, 1575.42, 1800, 1900MHz, 2.4-2.5GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| GSM Gain | GSM 2dBi / WiFi 2.15dBi |
| GPS Gain | GPS 28dB (LNA) |
| VSWR | 1.5:1 |
| Polarization | GSM - Vertical / GPS - RHCP |
| Size | 88 x 53.8 x 62mm |
| Cable | RG174 |

THROUGH HOLE



Cable length and connector as required

Tango 15 - GSM/GPS Antenna (IP65)

| | |
|----------------|------------------------------------------|
| Frequencies | 850, 900, 1575.42, 1800, 1900MHz, 2.1GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| GSM Gain | 2.15dBi |
| GPS Gain | 25dBi (LNA) |
| VSWR | <2.0 : 1 |
| Polarization | GSM - Vertical / GPS - RHCP |
| Size | Ø94 x 15mm |
| Cable | RG174 |

Tango 16 - GSM/GPS Antenna (IP67)

| | |
|----------------|----------------------------------|
| Frequencies | 850, 900, 1575.42, 1800, 1900MHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| GSM Gain | GSM 2dBi, |
| GPS Gain | 28dBi (LNA) |
| VSWR | <1.5 |
| Polarization | GSM - Linear / GPS - RHCP |
| Size | Ø50 x 48mm |
| Cable | RG174 |

THROUGH HOLE



Cable length and connector as required

Tango 19 - GSM/GPS Antenna (IP67)

| | |
|----------------|----------------------------------|
| Frequencies | 850, 900, 1575.42, 1800, 1900MHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| GSM Gain | 2dBi @ 900MHz / 1dBi @ 1900MHz |
| Gain (LNA) | 28dBi |
| VSWR | GSM - 2.0 / GPS - 1.5:1 |
| Polarization | GSM - Vertical / GPS - RHCP |
| Size | Ø46 x 14.5mm |
| Cable | RG174 |

THROUGH HOLE



Cable length and connector as required

Tango 22 - GSM/GPS/WiFi Antenna (IP67)

| | |
|----------------|-----------------------------------------------|
| Frequencies | 850, 900, 1575.42, 1800, 1900MHz, 2.1, 2.4Ghz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| GSM Gain | 2dBi / WiFi 0dBi |
| GPS Gain | 28dBi (LNA) |
| VSWR | GSM - 2.0 / GPS - 1.5 / WiFi - 2.0 |
| Polarization | GSM - Vertical / GPS - RHCP |
| Size | Ø80 x 15mm |
| Cable | RG174 |

THROUGH HOLE



Cable length and connector as required

THROUGH HOLE



Cable length and connector as required

Tango 32 - GSM/3G/GPS Antenna (IP67)

| | |
|----------------|------------------------------------------|
| Frequencies | 850, 900, 1575.42, 1800, 1900MHz, 2.1GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| GSM Gain | 2.5dBi |
| GPS Gain | 25dB (LNA) |
| VSWR | <2.0:1 |
| Polarization | GSM - Vertical / GPS - RHCP |
| Size | ø95 x 18mm |
| Cable | RG174 |

Alpha 8 - Blade Antenna (IP67)

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

ADHESIVE



Cable length and connector as required

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 2A - Right Angle 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 | 53 x 7.3mm |
| Connector | SMA male |

DIRECT CONNECT



DIRECT CONNECT


Delta 5 - Flexi Antenna

| | |
|----------------|--------------|
| Frequencies | 868MHz |
| Operating temp | -30 to +75°C |
| Impedance | 50 ohm |
| Gain | 3dBi |
| VSWR | <2:1 |
| Polarization | Vertical |
| Size | 85mm |
| Connector | SMA male |

DIRECT CONNECT


Delta 5A - Flexi Antenna

| | |
|----------------|--------------|
| Frequencies | 868MHz |
| Operating temp | -30 to +75°C |
| Impedance | 50 ohm |
| Gain | 3dBi |
| VSWR | <2:1 |
| Polarization | Vertical |
| Size | 100mm |
| Connector | SMA male |

DIRECT CONNECT


Delta 11 - Flexi Antenna

| | |
|----------------|---------------|
| Frequencies | 433MHz |
| Operating temp | -40 to +75°C |
| Impedance | 50 ohm |
| Gain | 2.15dB |
| VSWR | <2.0 : 1 |
| Polarization | Vertical |
| Size | 90.2 x 11.8mm |
| Conector | SMA Male |

Delta 12 - Flexi Whip Antenna

| | |
|----------------|--------------------|
| Frequencies | 151/173MHz |
| Operating temp | -30 to +75°C |
| Impedance | 50 ohm |
| Gain | 3dBi |
| VSWR | ≤2.0:1 |
| Polarization | Vertical |
| Size | 130mm |
| Connector | SMA male, BNC male |

DIRECT CONNECT



Delta 12A - Flexi Whip Antenna

| | |
|----------------|--------------------|
| Frequencies | 433/458MHz |
| Operating temp | -30 to +75°C |
| Impedance | 50 ohm |
| Gain | 3dBi |
| VSWR | ≤2.0:1 |
| Polarization | Vertical |
| Size | 130mm |
| Connector | SMA male, BNC male |

DIRECT CONNECT



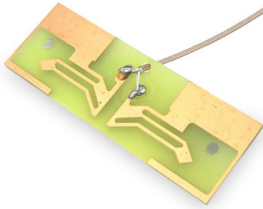
Delta 12B - Flexi Whip Antenna

| | |
|----------------|---------------------|
| Frequencies | 869MHz |
| Operating temp | -30 to +75°C |
| Impedance | 50 ohm |
| Gain | 3dBi |
| VSWR | ≤2.0:1 |
| Polarization | Vertical |
| Size | 130mm |
| Connector | SMA male / BNC male |

DIRECT CONNECT



EMBEDDED



Cable length and connector as required

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 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 |

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, 868, 900, 1800, 1900MHz, 2.1, 2.4-2.5GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain | 2.15dB |
| VSWR | <2.0 : 1 |
| Polarization | Linear |
| Size | 75 x 25 x 2.5mm |
| Cable | RG174 |

ADHESIVE



Cable length and connector as required

Alpha 10 - Blade Antenna

| | |
|----------------|----------------|
| Frequencies | 2.4-2.5GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain | 3.03 - 2.6dBi |
| VSWR | <1.5:1 |
| Polarization | Vertical |
| Size | 115 x 22 x 4mm |
| Cable | RG174 |

ADHESIVE



Cable length and connector as required

ADHESIVE


Cable length and connector as required

Alpha 16 - Thin Plate Antenna

| | |
|----------------|-------------------|
| Frequencies | 2.4 - 2.5GHz |
| Operating temp | -40 to +60°C |
| Impedance | 50 ohm |
| Gain | 2dBi |
| VSWR | <2.0:1 |
| Polarization | Vertical |
| Size | 35.5 x 39.9 x 2mm |
| Cable | RG174 |

DIRECT CONNECT

Delta 6B - Hinged Antenna

| | |
|----------------|------------------------|
| Frequencies | 2.4 - 2.5GHz |
| Operating temp | -20 to +65°C |
| Impedance | 50 ohm |
| Gain | 5dBi |
| VSWR | <2.0:1 |
| Polarization | Vertical |
| Size | 196 x 12.5mm |
| Connector | SMA male / SMA male RP |

DIRECT CONNECT

Delta 6C - Hinged Antenna

| | |
|----------------|------------------------|
| Frequencies | 2.4, 5.8GHz |
| Operating temp | -20 to +65°C |
| Impedance | 50 ohm |
| Gain | 5dBi |
| VSWR | <2.0:1 |
| Polarization | Vertical |
| Size | 196 x 12.5mm |
| Connector | SMA male / SMA male RP |

Delta 7A - Hinged Antenna

| | |
|----------------|------------------------|
| Frequencies | 2.4, 5.8GHz |
| Operating temp | -20 to +65°C |
| Impedance | 50 ohm |
| Gain | 1.5 - 2.1dBi |
| VSWR | <2.0:1 |
| Polarization | Vertical |
| Size | 110 x 10mm |
| Connector | SMA male / SMA male RP |

DIRECT CONNECT



Delta 8A - Stubby Antenna

| | |
|----------------|------------------------|
| Frequencies | 2.4 - 2.5GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain | 0dBi |
| VSWR | <2:1 |
| Polarization | Vertical |
| Size | 27mm |
| Connector | SMA male / SMA male RP |

DIRECT CONNECT



Delta 14 - Stubby Antenna

| | |
|----------------|--------------|
| Frequencies | 2.4 - 2.5GHz |
| Operating temp | -20 to +60°C |
| Impedance | 50 ohm |
| Gain | 2dBi |
| VSWR | <2.0:1 |
| Polarization | Vertical |
| Size | 56mm |
| Connector | SMA male RP |

DIRECT CONNECT



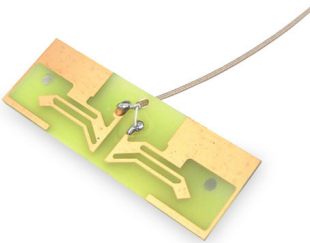
DIRECT CONNECT



Delta 15 - Right Angle Stubby Antenna

| | |
|----------------|--------------|
| Frequencies | 2.4 - 2.5GHz |
| Operating temp | -20 to +60°C |
| Impedance | 50 ohm |
| Gain | 2dBi |
| VSWR | <2.0:1 |
| Polarization | Vertical |
| Size | 53.5mm |
| Connector | SMA male RP |

EMBEDDED



Cable length and connector as required

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



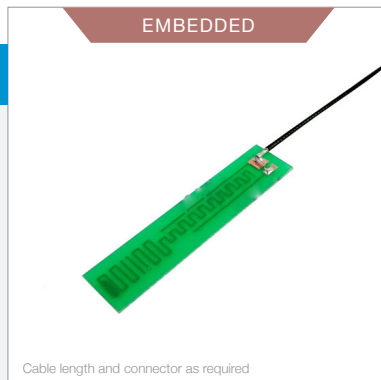
Cable length and connector as required

Echo 11 - PCB Antenna

| | |
|----------------|---------------|
| Frequencies | 2.4 - 2.5GHz |
| Operating temp | -20 to +65°C |
| Impedance | 50 ohm |
| Gain | 2.6dBi |
| VSWR | <1.6:1 |
| Polarization | Vertical |
| Size | 45 x 10 x 1mm |
| Cable | 1.13mm Coax |

Echo 17 - PCB Antenna

| | |
|----------------|-----------------|
| Frequencies | 2.4 - 2.5GHz |
| Operating temp | -20 to +60°C |
| Impedance | 50 ohm |
| Gain | 2.6dBi |
| VSWR | 2.0 : 1 |
| Polarization | Vertical |
| Size | 45 x 10 x 0.6mm |
| Cable | 1.13mm Coax |



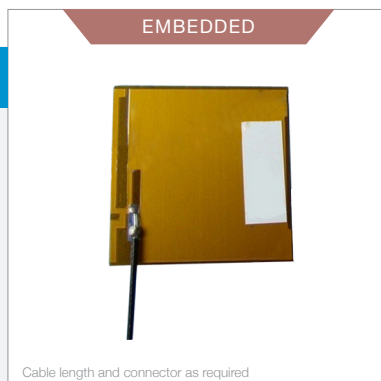
Echo 18 - PCB Antenna

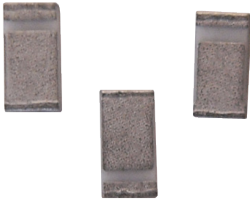
| | |
|----------------|--------------|
| Frequencies | 2.4 - 2.5GHz |
| Operating temp | -20 to +60°C |
| Impedance | 50 ohm |
| Gain | 2.6dBi |
| VSWR | 2.0:1 |
| Polarization | Vertical |
| Size | 37 x 0.6mm |
| Cable | 1.13mm Coax |



Echo 28 - Circuit Board Antenna

| | |
|----------------|-------------------|
| Frequencies | 2.4GHz |
| Operating temp | -10 to +60°C |
| Impedance | 50 ohm |
| Gain | 2dBi |
| VSWR | 1.92:1 max |
| Polarization | Linear / Vertical |
| Size | 31 x 28.5 x 0.1mm |
| Cable | 1.13mm Coax |



EMBEDDED

Echo 29 - Micro Embedded Chip Antenna

| | |
|----------------|-------------------|
| Frequencies | 2.4 - 2.5GHz |
| Operating temp | |
| Impedance | 50 ohm |
| Gain | 2.85 - 3.39dBi |
| VSWR | 3.0:1 max |
| Polarization | Linear |
| Size | 3.2 x 1.6 x 0.5mm |
| Connector | Solder |

THROUGH HOLE


Cable length and connector as required

Tango 2 - Robust Antenna

| | |
|----------------|--------------------------------------|
| Frequencies | 800, 900, 1800, 1900MHz, 2.1, 2.4GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain | 2.2dBi |
| VSWR | <1.5:1 |
| Polarization | Vertical/Horizontal |
| Size | 75 x 80 x 10mm |
| Cable | RG174 |

THROUGH HOLE


Cable length and connector as required

Tango 23 - Puck Antenna (IP67)

| | |
|----------------|-----------------------------------------|
| Frequencies | 2.4 - 2.5GHz, 5.1 - 5.8GHz |
| Operating temp | -40 to +85°C |
| Impedance | 50 ohm |
| Gain | 3dBi @ 2.4GHz; 5dBi @ 5GHz |
| VSWR | <1.7:1 |
| Polarization | Vertical |
| Size | ø80 x 23mm (not including screw thread) |
| Cable | RG174 |

Tango 24 - Puck Antenna (IP67)

| | |
|----------------|-----------------------------------------|
| Frequencies | 2.4 - 2.5GHz |
| Operating temp | -30 to +60°C |
| Impedance | 50 ohm |
| Gain | 3dBi |
| VSWR | <1.5:1 |
| Polarization | Vertical |
| Size | Ø40 x 15mm (not including screw thread) |
| Cable | RG174 |



Tango 25 - Miniature Antenna (IP65)

| | |
|----------------|-----------------------------------------|
| Frequencies | 2.4 - 2.5GHz |
| Operating temp | -30 to +60°C |
| Impedance | 50 ohm |
| Gain | 2dBi |
| VSWR | <2.0:1 |
| Polarization | Vertical |
| Size | Ø22 x 22mm (not including screw thread) |
| Cable | RG174 |



Tango 25A - Miniature Antenna (IP65)

| | |
|----------------|-----------------------------------------|
| Frequencies | 2.4 - 2.5GHz, 5.1 - 5.8GHz |
| Operating temp | -30 to +60°C |
| Impedance | 50 ohm |
| Gain | 2dBi @ 2.4GHz / 5dBi @ 5GHz |
| VSWR | <2.0:1 |
| Polarization | Vertical |
| Size | Ø22 x 22mm (not including screw thread) |
| Cable | RG174 |



THROUGH HOLE


Cable length and connector as required

Tango 26 - Miniature Antenna (IP65)

| | |
|----------------|----------------------------------------------|
| Frequencies | 2.4 - 2.5GHz |
| Operating temp | -30 to +60°C |
| Impedance | 50 ohm |
| Gain | 0.5dBi @ 2.4GHz |
| VSWR | <2.0:1 |
| Polarization | Vertical |
| Size | Ø22.3 x 14.75mm (not including screw thread) |
| Cable | RG174 |

About RF Cables

Siretta RF cable assemblies are generally used as an adaptor to connect two devices in RF signal transmission – typically a wireless module and antenna.

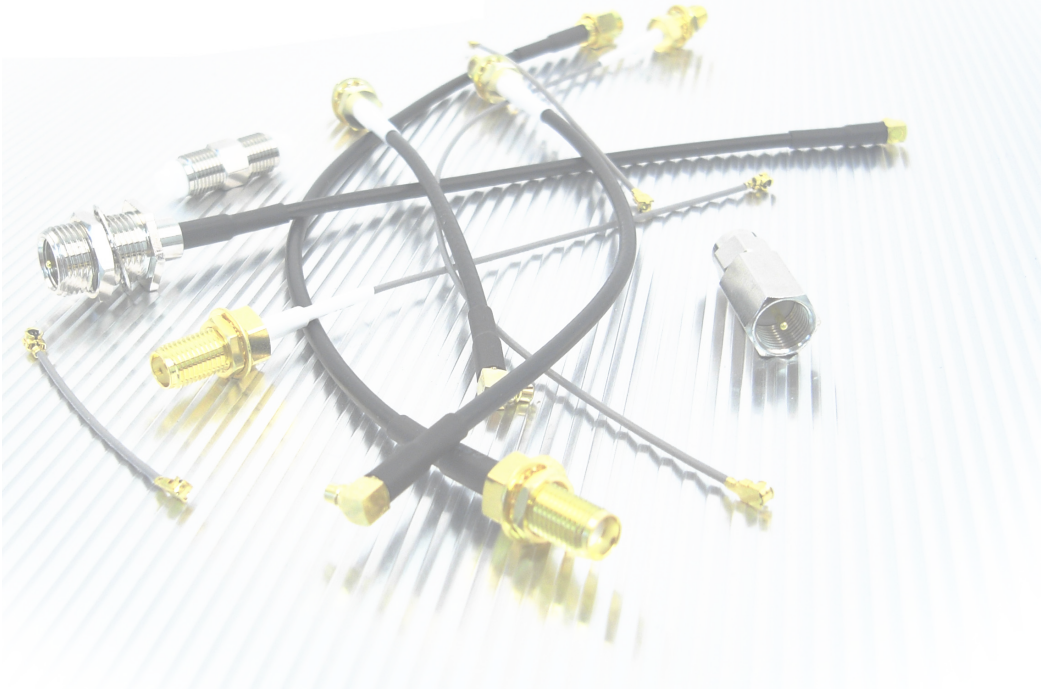
Custom cable assemblies in 10 days

Siretta is the top RF cable assembly manufacturer in the UK. We have many standard RF cable types and variations in stock. In just 10 days, we can assemble your customised requests and/or design a cable suited for your application.

Meeting our customers needs

For custom cables we will make a price quotation and after the price has been approved by you, we will provide technical drawings for your approval.

Each RF cable assembly is 100% signal continuity tested, in process and at completion. Our on-going quality control inspection guarantees every customer will receive the ultimate in quality cables.



RF Internal Cables

Our Most Popular Range of RF Internal Cables

Our internal RF cables are available in all cable styles as shown in the table on page 76.

Some internal cables are more popular than others. The popular styles we strive to have high availability on and we are continuously manufacturing them. Other combinations are less popular but can be made quickly with low minimum order quantities.

WE ONLY SUPPLY QUALITY CONNECTORS AND CABLES WITH ASSEMBLY TO MATCH AND AT A GREAT PRICE POINT.



| Connector A | Connector B | Cable Type | Cable Length | Part No |
|------------------------------------------------------------------------------------|---------------------|-------------|----------------------------------|----------------------------------------------------------------------|
|  | SMA Female Bulkhead | 0.81mm coax | 100mm 150mm 200mm | ASMI010X081S11 ASMI015X081S11 ASMI020X081S11 |
|  | FME Male Bulkhead | 0.81mm coax | 100mm 150mm 200mm | ASMI010Y081S11 ASMI015Y081S11 ASMI020Y081S11 |
|  | MCF (GSC) | 0.81mm coax | 50mm 100mm 150mm | ASMI010I081S11 ASMI015I081S11 ASMI005I081S11 |
|  | SMA Female Bulkhead | 1.13mm coax | 100mm 150mm 200mm 300mm | ASMG010X113S11 ASMG015X113S11 ASMG020X113S11 ASMG030X113S11 |
|  | uFL / IPEX | 1.13mm coax | 50mm 100mm 150mm | ASMG010G113S11 ASMG015G113S11 ASMG005G113S11 |
|  | SMA Female Bulkhead | RG174 | 100mm 150mm 200mm 250mm | ASMK010X174S11 ASMK015X174S11 ASMK020X174S11 ASMK025X174S11 |

RF Extension Cables

Our Most Popular Range of RF Extension Cables

At Siretta we have produced a collection of off-the-shelf or short delivery RF extension cables in RG174 and RG58 cable styles. These are high quality cables made to a high standard using quality components. Availability, quality and a great price point is the philosophy of Siretta RF cables.



Extension cables are suitable for either direct connection to antennas that feature a pigtail and connector output, such as the Oscar range, or for extending existing cable runs to a longer distance.

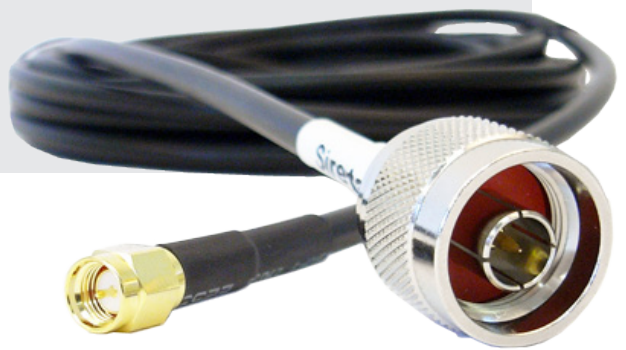
Our cables assemblies utilise RG58 and RG174 cables, with a choice of SMA, FME, TNC and N-Type popular connector types. Standard cable lengths offered are 3m, 5m and 10m, although consideration should be given to minimising the overall cable length wherever possible to minimise losses. This is especially important in locations with limited reception.

Please also review our low loss RF cables as we have the same philosophy of quality, availability and a great price point for this range too.

Low Loss Extension Cables

We offer our low loss extension cables in longer length than the standard extension cables. Customers should consider using these extension cables for very long length to be sure the signal loss is minimised.

- » **HIGH AVAILABILITY**
- » **POPULAR LENGTHS**
- » **QUALITY COMPONENT & BUILD**
- » **COMPETITIVE PRICING**









Low Loss LLC100A Extension Cables (RG174 replacement)

| Connector A | Connector B | Cable Length | Part No | High Stock Availability |
|-------------|-------------|--------------|-----------------|-------------------------|
| SMA Male | SMA Female | 3m | ASMA300B174L13 | ✓ |
| | | 5m | ASMA500B174L13 | ✓ |
| | | 10m | ASMA1000B174L13 | |
| SMA Male | FME Female | 3m | ASMA300F174L13 | ✓ |
| | | 5m | ASMA500F174L13 | ✓ |
| | | 10m | ASMA1000F174L13 | |
| SMA Male | MCX Male | 3m | ASMA300T174L13 | |
| | | 5m | ASMA500T174L13 | |
| | | 10m | ASMA1000T174L13 | |
| SMA Male | MMCX Male | 3m | ASMA300L174L13 | |
| | | 5m | ASMA500L174L13 | |
| | | 10m | ASMA1000L174L13 | |
| FME Male | MCX Male | 3m | ASME300T174L13 | |
| | | 5m | ASME500T174L13 | |
| | | 10m | ASME1000T174L13 | |
| FME Female | FME Male | 3m | ASMF300E174L13 | ✓ |
| | | 5m | ASMF500E174L13 | ✓ |
| | | 10m | ASMF1000E174L13 | |
| FME Female | MCX Male | 3m | ASMF300T174L13 | |
| | | 5m | ASMF500T174L13 | |
| | | 10m | ASMF1000T174L13 | |



Low Loss LLC200A Extension Cables (RG58 replacement)







| Connector A | Connector B | Cable Length | Part No | High Stock Availability |
|------------------------------------------------------------------------------------|-------------|--------------|------------------|-------------------------|
|  | SMA Female | 3m | ASMA300B058L13 | |
| | | 5m | ASMA500B058L13 | |
| | | 10m | ASMA1000B058L13 | |
| | | 15m | ASMA1500B058L13 | |
| | | 20m | ASMA2000B058L13 | |
|  | FME Female | 3m | ASMA300F058L13 | |
| | | 5m | ASMA500F058L13 | |
| | | 10m | ASMA1000F058L13 | |
| | | 15m | ASMA1500F058L13 | |
| | | 20m | ASMA2000F058L13 | |
|  | N-Type Male | 3m | ASMA300R058L13 | |
| | | 5m | ASMA500R058L13 | |
| | | 10m | ASMA1000R058L13 | |
| | | 15m | ASMA1500R058L13 | |
| | | 20m | ASMA2000R058L13 | |
|  | FME Female | 3m | ASME300F058L13 | |
| | | 5m | ASME500F058L13 | |
| | | 10m | ASME1000F058L13 | |
| | | 15m | ASME1500F058L13 | |
| | | 20m | ASME2000F058L13 | |
|  | SMA Male | 3m | ASMZG300A058L13 | |
| | | 5m | ASMZG500A058L13 | |
| | | 10m | ASMZG1000A058L13 | |
| | | 15m | ASMZG1500A058L13 | |
| | | 20m | ASMZG2000A058L13 | |
|  | FME Female | 3m | ASMZG300F058L13 | |
| | | 5m | ASMZG500F058L13 | |
| | | 10m | ASMZG1000F058L13 | |
| | | 15m | ASMZG1500F058L13 | |
| | | 20m | ASMZG2000F058L13 | |

RG174 Extension Cables

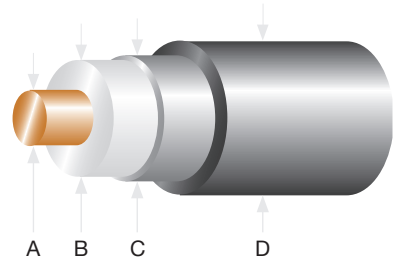
| Connector A | Connector B | Cable Length | Part No | High Stock Availability |
|-------------|-------------|--------------|----------------|-------------------------|
| SMA Male | SMA Female | 0.5m | ASMA050B174S13 | |
| | | 1m | ASMA100B174S13 | ✓ |
| | | 3m | ASMA300B174S13 | ✓ |
| SMA Male | FME Female | 0.5m | ASMA050F174S13 | |
| | | 1m | ASMA100F174S13 | ✓ |
| | | 3m | ASMA300F174S13 | ✓ |
| SMA Male | MCX Male | 0.5m | ASMA050T174S13 | |
| | | 1m | ASMA100T174S13 | |
| | | 3m | ASMA300T174S13 | |
| SMA Male | MMCX Male | 0.5m | ASMA050L174S13 | |
| | | 1m | ASMA100L174S13 | |
| | | 3m | ASMA300L174S13 | |
| FME Male | MCX Male | 0.5m | ASME050T174S13 | |
| | | 1m | ASME100T174S13 | |
| | | 3m | ASME300T174S13 | |
| FME Female | FME Male | 0.5m | ASMF050E174S13 | |
| | | 1m | ASMF100E174S13 | ✓ |
| | | 3m | ASMF300E174S13 | ✓ |
| FME Female | MCX Male | 0.5m | ASMF050T174S13 | |
| | | 1m | ASMF100T174S13 | |
| | | 3m | ASMF300T174S13 | |



RG58 Extension Cables

| Connector A | Connector B | Cable Length | Part No | High Stock Availability |
|------------------------------------------------------------------------------------|-------------|--------------|------------------|-------------------------|
|  | SMA Female | 3m | ASMA300B058S13 | ✓ |
| | | 5m | ASMA500B058S13 | |
|  | FME Female | 3m | ASMA300F058S13 | ✓ |
| | | 5m | ASMA500F058S13 | |
|  | N-Type Male | 3m | ASMA300R058S13 | ✓ |
| | | 5m | ASMA500R058S13 | |
|  | FME Female | 3m | ASME300F058S13 | |
| | | 5m | ASME500F058S13 | |
|  | SMA Male | 3m | ASMZG300A058S13 | ✓ |
| | | 5m | ASMZG500A058S13 | ✓ |
| | | 10m | ASMZG1000A058S13 | |
|  | FME Female | 3m | ASMZG300F058S13 | ✓ |
| | | 5m | ASMZG500F058S13 | |

RF Cables Sizes



| Cable Type | Connector types | Min Bend Radius | Dimensions (mm) | | | | Insulator Material |
|------------|------------------------------------------------|-----------------|-----------------|-------------|----------|----------|--------------------|
| | | | A Core | B Insulator | C Shield | D Jacket | |
| 0.81mm | u.FL, IPEX, MHF2, GSC, HSSC | 3.24 | 0.15 | 0.4 | 0.65 | 0.81 | PFA |
| 1.13mm | u.FL, GSC, IPEX, SMA, FME, SMB, TNC, TNX, MMCX | 4.5 | 0.24 | 0.68 | 0.9 | 1.13 | FEP |
| 1.13mm * | u.FL, GSC, IPEX, SMA, FME, SMB, TNC, TNX, MMCX | 4.5 | 0.22 | 0.7 | | 1.13 | FEP |
| 1.32mm | IPEX, GSC, SMA, FME, SMB, TNC, MCX, MMCX | | 0.22 | 0.7 | | 1.32 | FEP |
| 1.37mm | u.FL, IPEX, GSC, SMA, FME, SMB, TNC, MCX, MMCX | 9 | 0.32 | 0.92 | | 1.37 | FEP |
| 1.48mm | HFL, IPEX, GSC, SMA, MMCX, MCA, SMB, FME | 9 | 0.31 | 0.86 | | 1.48 | FEP |
| RG178 | IPEX, MHF, MMCX, MCX, SSMB, SMA, FME | 9 | 0.31 | 0.86 | | 1.8 | FEP |
| RG316 | MMCX, SMA, FME, SMB | | 0.53 | 1.53 | | 2.53 | FEP |
| RG174 | SMA, SMB, MMCX, MCX, FME, TNC, BNC | 10.5 | 0.48 | 1.55 | | 2.7 | XLPE |
| RG42 | SMA | 10 | 0.94 | 2.95 | | 3.06 | Solid PTFE |
| RG58 | SMA, SMB, BNC, TNC, UHF, N | 20 | 19 x 0.18 | 2.95 | | 4.95 | PE |

Low Loss Cables

| | | | | | | | |
|---------|------------------------------------|-----|------|------|------|------|----------|
| LLC100A | SMA, SMB, MMCX, MCX, FME, TNC, BNC | 6.4 | 0.46 | 1.52 | 2.11 | 2.79 | Solid PE |
| LLC200A | SMA, SMB, BNC, TNC, UHF, N | 20 | 10.2 | 2.9 | 3.4 | 5 | Foam PE |
| RG213 | N-type | | 2.3 | 7.24 | | 10.3 | PE |

| | |
|------|----------------------------------------------------------------------------------------------|
| PFA | Cross linked poly ethylene |
| FEP | Fluorinated ethylene propylene - similar to PTFE but flexy - much higher temp before melting |
| PFA | Perfluoroalkoxy - similar to PTFE but flex |
| PE | Polyethylene |
| PVC | Poly Vinyl Chloride |
| PTFE | Polytetrafluoroethylene |

u.FL, IPEX and GSC connectors:

| | |
|------|--------------------------------------------------------------------------------------------------------|
| u.FL | Four types depending on cable size. |
| IPEX | There are 4 sizes - MHF, MHF2, MHF3, MHF4 (smallest). Dictated by cable size. Std is MHF 2.5mm height. |
| GSC | Only one size. |

Check small connector guide details

| Jacket Material | Loss dB/M @ 2GHz | Frequency Range | Comments |
|-----------------|------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| PFA | 4.4 | to 6GHz | Internal antenna pigtails |
| FEP | 3.2 | to 6GHz | Most popular cable for internal use. Internal antenna pigtails, internal to bulkhead connector cable. |
| FEP | 2.2 | to 6GHz | * Low loss version of the standard 1.13mm |
| FEP | 2.8 | to 6GHz | |
| FEP | 2.4 @2.5GHz | to 6GHz | Has same size conductor as 1.48mm and RG178 cable, but smaller overall diameter, similar cable loss but more flexible in limited space. |
| FEP | | to 6GHz | 1.48mm is the most popular thin RF coaxial cable. |
| FEP | 2.6 @1.8GHz | to 6GHz | |
| FEP | 2.06 @2.4GHz | to 3GHz | Used internally instead of RG174. RG136 can go high temp and is more flexible. |
| PVC | 1.175 @1GHz | to 6GHz | This is the most popular cable for GPS and GSM antennas. Low temp spec. |
| N/A | 0.58 | to 6GHz | Outer jacket - tin soaked braid. Semi rigid cable |
| PVC | 1.06 @2.4GHz | to 6GHz | Standard RF cable for outside use. |

| | | | |
|-----|--------------|---------|--------------------------------------------------|
| PVC | 1.15 | to 6GHz | Low loss version of RG174 and much more flexible |
| PVC | 0.15 @200MHz | to 6GHz | *Low loss version of the standard RG58. |
| PVC | 0.25 @900MHz | to 6GHz | Low loss cable for the base station industry. |

About RF Connectors and Adaptors

A range of high quality connector and adaptor products, suitable for the production of new cable assemblies, the re-termination of existing cables, or for providing compatibility to existing cables or equipment.

RF Adaptors

Adaptors are especially suitable for extending or joining cable runs or equipment terminated with alternative connector types, avoiding the need to re-terminate or change the existing installation. Adaptors may be used either as a temporary solution to provide compatibility, or for permanent installation into a working system.

RF Connectors

Connector products are offered in the popular SMA, FME and MMCX styles, for cable types RG58 and RG174. All connectors are designed for crimp termination, producing a reliable and high performance connection for a variety of wireless applications.










For more information contact:

+44 (0)118 976 9014

RF Connectors

Our Most Popular Range of RF Connectors

| | RG174 | RG58 |
|---------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SMA Male & RP Crimp |  |  |
| SMA Female Crimp |  |  |
| MMCX RA Crimp |  | - |
| FME Female Crimp |  |  |
| FME Male Crimp |  |  |

RF Adaptors

Our Most Popular Range of RF Adaptors



| Connector A | Connector B | Part No |
|-------------|---------------|--------------------|
| SMA Male | SMA Male | ADAPT/SMAM/SMAM |
| SMA Male | SMA Female | ADAPT/SMAM/SMAF |
| SMA Male | SMA Male RP | ADAPT/SMAM/SMAM/RP |
| SMA Male | SMA Female RP | ADAPT/SMAM/SMAF/RP |
| SMA Male | SMA Female RA | ADAPT/SMAM/SMAF/RA |
| SMA Female | SMA Female | ADAPT/SMAF/SMAF |
| SMA Female | SMA Male RP | ADAPT/SMAF/SMAM/RP |



| Connector A | Connector B | |
|-------------|---------------|--------------------|
| SMA Female | SMA Female RP | ADAPT/SMAF/SMAF/RP |
| SMA Female | TNC Male | ADAPT/SMAF/TNCM |
| FME Male | SMA Male | ADAPT/FMEM/SMAM |
| FME Male | SMA Female | ADAPT/FMEM/SMAF |
| FME Male | FME Male | ADAPT/FMEM/FMEM |
| FME Male | FME Female | ADAPT/FMEM/FMEF |
| FME Male | TNC Male | ADAPT/FMEM/TNCM |
| FME Female | SMA Male | ADAPT/FMEF/SMAM |
| FME Female | SMA Female | ADAPT/FMEF/SMAF |



| Connector A | Connector B | |
|-------------|-------------|--------------------|
| FME Female | FME Female | ADAPT/FMEF/FMEF |
| SMB Male | SMA Female | ADAPT/SMBM/SMAF |
| MMCX Male | SMA Female | ADAPT/MMCXM/SMAF |
| MMCX Female | SMA Male | ADAPT/MMCXF/SMAM |
| MCX Male | FME Male | ADAPT/MCXM/FMEM |
| MCX Female | SMA Male | ADAPT/MCXF/SMAM |
| MCX Female | FME Male | ADAPT/MCXF/FMEM |
| N-Type Male | SMA Female | ADAPT/N-TYPEM/SMAF |

Disclaimer

Every care has been taken to ensure that the information displayed in this product brochure is accurate. Siretta Ltd does not accept responsibility or liability for errors or information which is found to be misleading.

Siretta Ltd reserve the right to change product specifications or appearance without prior notice through product development and improvement. We aim to ensure our customers are aware of this at the time of ordering.

Product specifications are correct at the time of generating this catalogue and the latest accurate information can be found at www.siretta.co.uk



Inspired Wireless M2M Technology

sales +44 (0)118 976 9014
fax +44 (0)118 976 9020
accounts +44 (0)118 976 9069
email sales@siretta.co.uk
www.siretta.co.uk



Siretta Ltd
Basingstoke Road
Spencers Wood
Reading
Berkshire
RG7 1PW
United Kingdom

Company No. 08405712
VAT Registration No. GB163 04 0349

A member of the Olancha Group Ltd

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