



SA918-196 Directional Antenna System

- Provides directional detection for 196 unit
- Operates over all GSM and UMTS bands
- 9dBi forward gain enhances performance / range
- Can be used inverted on extension poles
- Handle accommodates a full range of DIY poles
- Lightweight design for prolonged use

Specifications

Frequency bands (handset frequencies)

- EGSM900 (880 – 915MHz) & GSM1800 (1710 – 1785 MHz)
- W-CDMA / UMTS 2100 (1920 – 1980 MHz)

Product description

The SA918 antenna system is designed to enhance the detection capabilities of the GSM196 mobile phone detector. The lightweight assembly (approx 600grams) allows operators to more accurately pin point the location of an operational phone. The detection characteristics also allow the unit to reject unwanted signal reflections from other sources. The antenna effectively amplifies the signals being supplied to the 196 thereby increasing the range of the unit by as much as 50%. The assembly can be used, either with the handle or mounted on the operator's forearm. When used on the forearm, a velcro strap is provided to ensure the safety of the assembly. For external searching the unit can be inverted and elevated by means of a variety of standard extension poles which can be fitted into the hollow handle. The assembly also incorporates a standard camera fixing so that it can be attached to a normal photographic tripod.

Use in Prisons

The SA918-196 was designed specifically for use in prisons and can greatly increase the detection capability. In situations where multiple mobile phones are in operation on a wing at the same time, it can be difficult to identify the cell containing an active phone simply by using signal strength alone. The GSM196 when used with the SA918 allows the officer to a scan specific direction with rejection of signals in all but the direction the antenna is pointing – see polar plots.



The assembly can be strapped on the officer's forearm who can then simply walk passed cells on each landing /level. The GSM196 will then indicate which cell(s) have active phones in them.

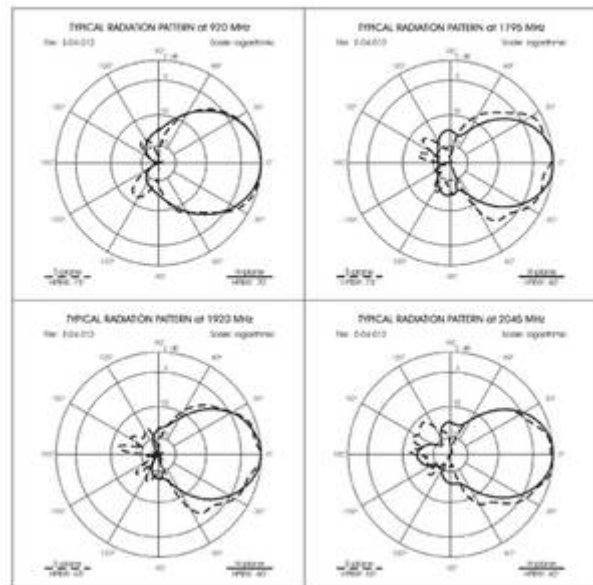
Once activity has been detected on a wing the assembly can be setup to monitor specific parts of the wing from one end over a period of time.

Open Prisons

The SA918 assembly greatly improves the detection and location capabilities of the GSM196 by reporting direction as well as signal strength to search team. With a line of sight range in excess of 500metres for 2G registration signals, the SA918 can be used to identify which accommodation block contains an active phone. On approaching the block the antenna system can help quickly identify which part of the block the phone is actually located in.

The SA918 assembly can also be used with the new GSM196R, which a special version of the 196 which contains a radio transmitter. The 196R in conjunction with SA918 can be left to monitor a specific accommodation block and signal back to the security office all incidents of phone activity.

Polar diagrams for the SA918 directional antenna



Weight

SA918 antenna	298 grams
SA918 assembly Handle	268 grams
GSM196 (including batteries)	88 grams
Total Weight of assembly	654 grams

Adapter

Some of the decorating extension rods come complete with a tapered adapter which neatly into the assembly handle. Others are only supplied only with a screw fixing. The below illustration shows one of the many screw to taper adapters that are readily available from various DIY stores and suppliers.





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