



Fixed-coil Video Map Generator

The Video Map Generator Type S 3202 generates video signals which correspond to markings, such as a map or grid, on a photographic slide. A fixed-coil flying spot scanning system is employed and an output signal resolution equivalent to 1000 lines per picture diameter is achieved from map information contained within a 5cm (2in) diameter circle on a 8.2cm (3.25in.) square glass slide.

The video signals can be mixed with radar signals, in a display system, and appear fully synchronized on the tube face as an integral part of the display. The high level of resolution and focussing accuracy of this equipment enables more detailed mapping information to be presented than was previously possible with earlier systems.

The equipment for generating information from one slide is contained in a single cabinet.

Features

- Flying spot scanning with fixed coil deflection.
- Rapid interchange of map plates.
- High resolution.
- Off centring of PPI display does not affect correlation of displayed radar and map.

No moving parts—compatibility with fixed-coil displays.

Fully transistorized.

Data summary

Turning information: d.c or timebase voltages varying at radar antenna rate. When timebase voltages are used an antenna rotation failure signal is required.

Ranges: 10 nautical miles to 400 nautical miles.

Resolution: 1000 lines (i.e 500 white and 500 black to the radius).

Video outputs: Five at 3V \pm 0.5V positive going into 75 Ω .

Power requirements:

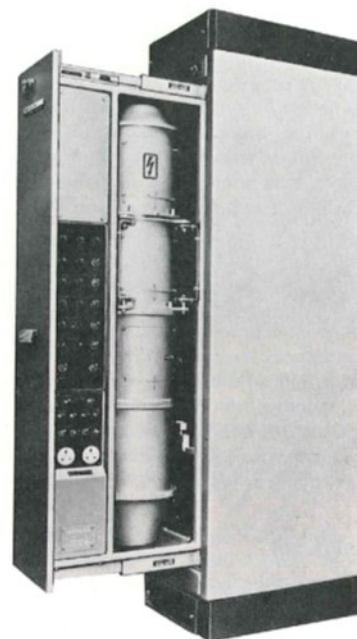
Voltage: either 200–250V \pm 10% from 45 to 65Hz or 100–125V \pm 10% from 45 to 65Hz.

Power: 0.6kVA.

Temperature range: 0 to +45°C.

Dimensions:

Height	182cm	71.75in.
	(externally blown)	
	190cm	(75in.)
	(internally blown)	
Width	41cm	(16in.)
Depth	61.5cm	(24.125in.)
Weight	255kg	(560lb)



S 3202

Full details are given in Marconi Radar Data Sheet E7

Radar Links

The Marconi Company can supply radar links capable of relaying up to four high-quality radar pictures simultaneously over long distances. Their use removes the necessity of siting the component parts of a radar system within a short distance of each other, and also presents a means of achieving greater speed and accuracy in data handling.

The main applications of these links may be summarized as follows:

- (1) Where the site of a radar station is too vulnerable or too inaccessible for the operations centre.
- (2) Where two radars of different characteristics, with their heads sited in different places, are viewed on the same display system.
- (3) Where the associated organization

is split into two or more sections, remote from each other, with remote displays at each point.

(4) For the co-ordination at a central control position of the activities of a number of diverse radar stations.

Features

High data handling capacity.

No measurable degradation of video.

Freedom from accidental interference and deliberate jamming is afforded by the use of frequency modulation and a very narrow transmitted beam.

Security against unauthorized interception provided by the narrow beamwidth and the complexity of the transmitted signal.

Reliability is ensured, the use of frequency modulation results in no significant degradation due to weather or fading effects.

Long distances can be covered by the use of repeater stations, distances in excess of 200 miles (320 km) being easily achieved subject to proper initial survey.