Chapter -

## **General information**



Fig. 1 Marconi Instruments Signal Source Type 6058B

## 1.1 SPECIFICATION

FREQUENCY

Range

8.0 to 12.5 GHz in one continuous band

Scale Accuracy

±1%

Stability (Typical) (After one hour warm up in stable environment)

Short Term (5 min)

0.003% (Allowing settling time of 15 min after frequency change)

Long Term (1 hour)

0.008%

Line stability

0.001% per 10V change in range 200 to 260V

With Temperature

 $0.006\%/^{\circ}$ C in range 10 to  $50^{\circ}$ C

Pulling (Typical) (Frequency pull due to mismatch of 50:1) at 8.0 GHz at 10.0 GHz at 12.0 GHz

0.09% 0.06% 0.09%

**Output Power** 

Not less than 20 mW in  $50\Omega$ 

Attenuator

Internally and externally fully variable over at least 15 dB

Impedance

 $50\Omega$ 

**Output Connector** 

Precision stainless steel female 'N' Type

SIGNAL PURITY Harmonic Content Residual F.M.

Not greater than -20 dB relative to fundamental

Typically 10 p.p.m.

Amplitude Modulation

Internal

15 dB depth modulation, variable over at least 100 Hz either side

of a nominal 1 kHz squarewave.

External

Up to 17 dB depth for a 100 mA input. Rise time being faster

than 5  $\mu$ s.

Output Levelling

Compatible with levelling amplifier Type 6587, to level output

within 0.1 dB (excluding detector and coupler variations).

Power Requirements Supply Voltage Input Power

100 to 120 or 200 to 260V 50 to 60 Hz.

20 VA

Dimensions

Height: 98 mm (3.7/8 in) Width: 203 mm (8 in) Depth: 286 mm (11.1/4 in)

Weight: 4.0 kg

Accessories

A wide range of precision coaxial components is available for use

with this instrument.