

Marconi Seven-unit Monitor Type HU 126

This is a self-contained test instrument for monitoring the seven-unit sequential signals employed in error correcting multiplex systems.

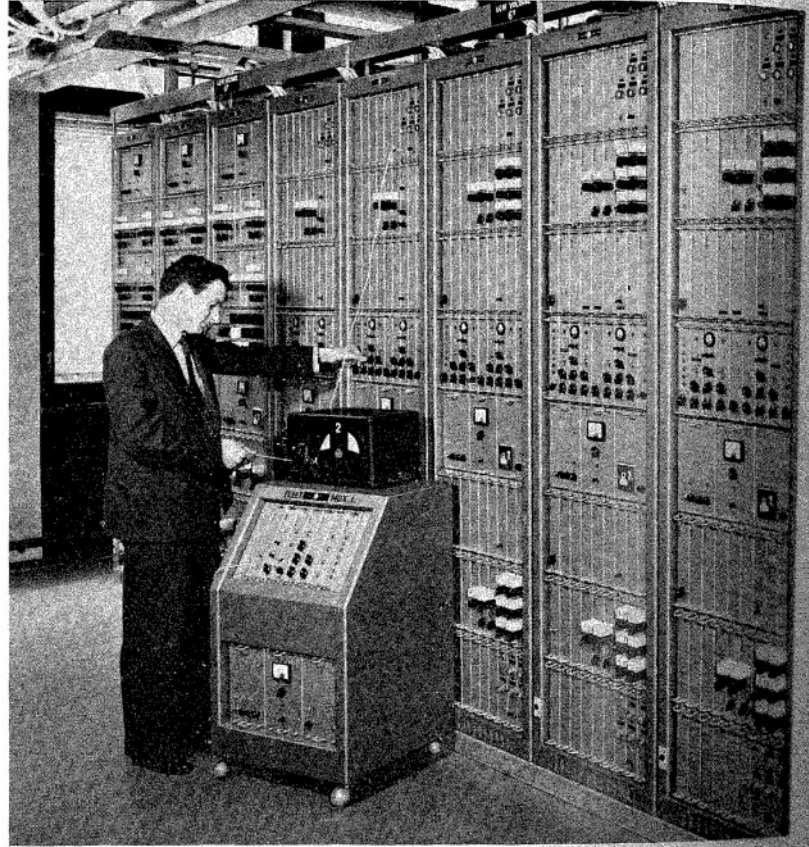
Any signal complying with the international standard (C.C.I.R Recommendation No. 342)* which is based on the Van Duuren system, may be monitored, irrespective of the make and type of terminal equipment used. Unlike monitors which are dependent on the equipment being monitored, the HU 126 has its own master clock, synchronizing and phasing circuits and provides a truly independent check of the quality of the transmitted or received aggregate signal.

In conjunction with a suitable seven-unit printer, the HU 126 provides a printed-tape record of any one channel of a two-channel or four-channel multiplex signal, or alternatively of any sub-channel or combination of sub-channels on a sub-divided channel.

In addition to the printed-tape record, the HU 126 has an arrangement of seven lamps which give a visual display of the elements in each character.

A special feature of this monitor is the fully automatic phasing system which is provided in addition to manual or semi-automatic phasing. Accurate synchronism with the signal being monitored is also automatically maintained at all times.

The monitor can also be supplied in rack form if required.



FEATURES

Uses the C.C.I.R recommended seven-unit code and form of multiplexing.

Transistors are used throughout.

Any channel or sub-channel of a two-channel or four-channel system can be switch-selected.

Completely self-contained, incorporating its own power supplies, master clock, synchronizing and phasing.

Phasing may be automatic, semi-automatic or manual.

Printed-tape record and simultaneous seven-lamp display of each monitored character.

'Excessive Error Rate Lamp' lights whenever the error-rate equals or exceeds a pre-determined value.

Normal or reverse-polarity signals can be monitored.

Marked or unmarked character cycles can be accommodated.

DATA SUMMARY

Input signal: Seven-unit sequential aggregate signal (in accordance with C.C.I.R Recommendation No. 342).*

Input level: Between ± 6 V to ± 80 V.

Input impedance: 40,000 Ω (nominal).

Input sensitivity: ± 3 V, balanced about zero.

Input margin: Acceptable distortion of element lengths better than $\pm 45\%$.

Input polarity: Facility provided for either convention to be used.

Signalling speed: Two-channel 85 5/7, 96 or 100 bauds. Four-channel 171 3/7, 192 or 200 bauds.

Oscillator frequency: 9.6 kHz.

Oscillator stability: Better than ± 1 part in 10^6 .

Synchronizing: Approximately 1% of an element correction after 8 early or late transitions.

Output: 7-wire, suitable for driving a Siemens and Halske Tempf 41(c) printer (or equivalent).

Power supplies: 100-125 V or 200-250 V, 45-65 Hz single-phase a.c.

Dimensions:

(Overall but excluding printer).

Height 3 ft (92 cm)

Width 1 ft 11 in. (59 cm)

Depth 1 ft 8 in. (51 cm)

* As amended Xlth Plenary Session, GENEVA 1966.

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