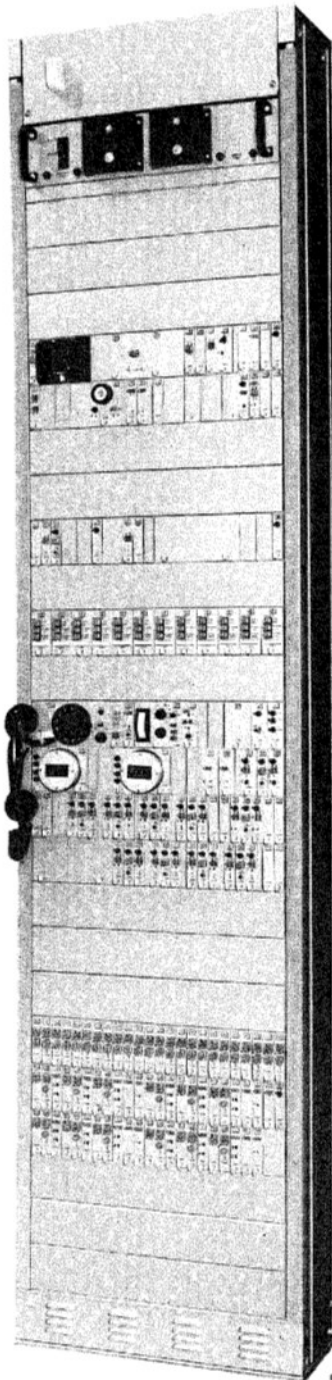




12-channel Carrier Multiplex Equipment

MX 150 Series

Designed and produced by Marconi Italiana, Genoa, Italy.



9790

THE MX 150 series includes high-grade multiplex terminals and repeaters suitable for use on cable, open-wire line and radio-link circuits. They conform entirely to the latest recommendations of the C.C.I.T.T.

Features

- Fully transistorized.
- High-level and low-level out-of-band signalling.
- Automatic level regulator with extended range.
- Terminals can be equipped with comparators if necessary.
- Carrier generator is duplicated and fitted with automatic change-over switching to the stand-by source.
- Four terminals are contained on a single standard rack.
- Low-gain and high-gain repeaters.

CIRCUIT

Channel inputs are separately modulated and subsequently arranged to form sub-groups of three. The four sub-groups are individually modulated and then combined to form a 12-channel basic group.

The band 60 to 108 kc/s is used for transmission in one direction and the band 6 to 54 kc/s for transmission in the other direction. The 60 to 108 kc/s basic group is modulated with a frequency of 114 kc/s and the resultant band 6 to 54 kc/s passed to line via directional filters. Two pilot frequencies are fed between terminals to operate automatic gain control circuits and monitoring facilities.

Data Summary

- Effective channel bandwidth: 300-3400 c/s.
- Line frequencies: 6-54 kc/s.
60-108 kc/s.
- Sending level: +4.5 dBr.
- Receiving level: -61 dBr.
- Range of automatic gain control: ± 5 dB.
- Line impedance: 150 Ω .
- Carrier leak: -26 dBr.
- Audio input level (4 W transmit): 0 to -15 dBr.
- Audio output level (4 W receiver): +8 to -7 dBr.

Attenuation/frequency distortion: 2/5 C.C.I.T.T.

Harmonic content (800 c/s tone): 1%.

Total noise: 0.7 mV in a zero-level point.

Intelligible crosstalk: 65 dB.

Signalling frequency: 3825 c/s.

Signalling level: -6 dBr to -18 dBr.

Power supplies: 220 V ($\pm 2\%$), 45-60 c/s a.c. or 24 V ($\pm 2\%$) d.c.

Dimensions (of four-terminal standard rack):

Height	Width	Depth	Weight
8 ft 6½ in.	2 ft	9 in.	660 lb
(260 cm)	(60 cm)	(22.5 cm)	(300 kg)

Marconi

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