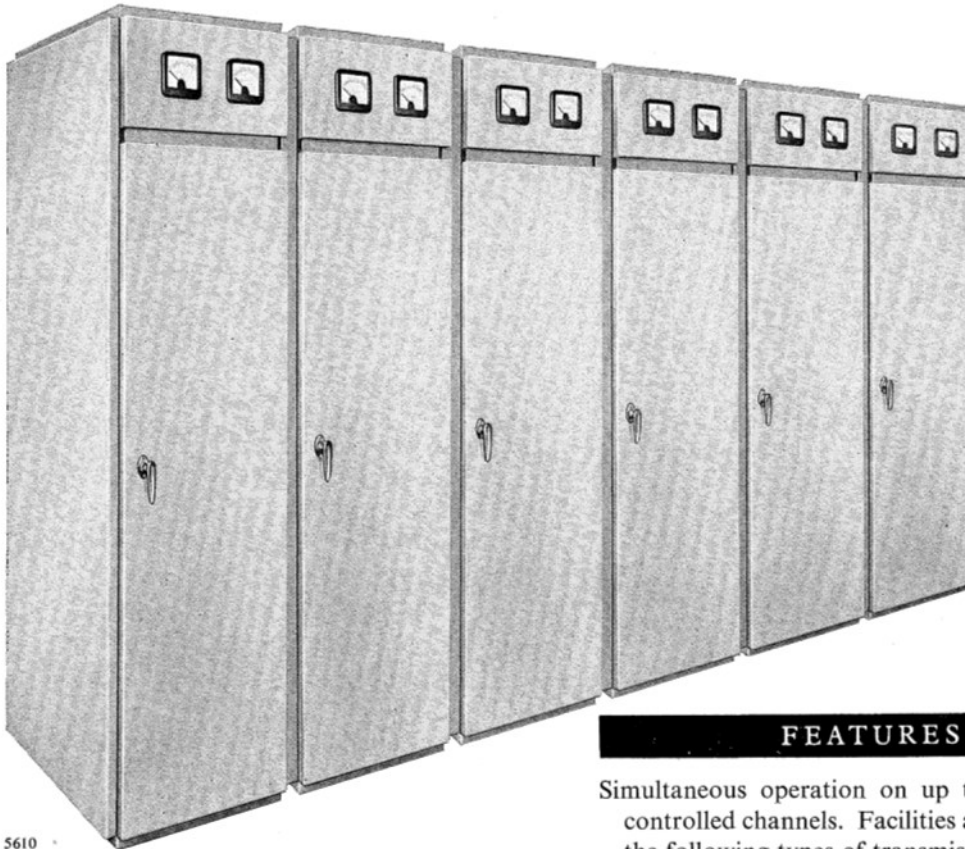




2.5 kW HF Channellised Transmitters *HC 200 Series*



5610

THE MEDIUM POWER channellised transmitter series has been developed to meet the general demand for HF transmitters suitable for simultaneous operation on up to four spot frequencies and at the same time providing facilities for various types of transmission.

FEATURES

Simultaneous operation on up to four crystal-controlled channels. Facilities are provided for the following types of transmission:

- Continuous Wave Telegraphy
- Tone Telegraphy
- Frequency Shift Telegraphy
- Frequency Modulated Telegraphy
- Phase Modulated Telegraphy
- Telephony (High Level Modulation)

The RF, modulator, phase modulator, FSK, and power units are built into standard cabinets, the final assembly consisting of a number of units arranged in line.

Operation may be either local or remote.

Independent switching of each working channel with instant selection of any pre-set service at the remote point.

Provision for either key or microphone, according to service in use on each channel, at the remote point.

A station commencing with a minimum requirement may be subsequently expanded by the simple addition of standard cabinets.

GENERAL DESCRIPTION

The complete transmitter consists of several cabinets housing the required RF units, modula-

tors, phase modulators, FSK and power units.

Where remote control is desired the various switching operations are performed on small remote control units, one per RF channel, with switching operations arranged to select different transmission facilities and with circuits designed to suit the length of interconnecting lines employed.

The various units comprising the complete transmitter are each divided into sub-units to form circuit chains depending upon the function of each whole unit, and are basically the same as those of the Type HC 100 series described on page 213.

DATA SUMMARY

Power rating (to aerial feeder):

Telephony 2 kW (Carrier).
Telegraphy 2.5 kW.

Frequency range: 2–27.5 Mc/s. Simultaneous operation on four spot frequencies.

Frequency stability: To comply with Atlantic City standards.

RF harmonics: To comply with Atlantic City standards.

Modulation: Up to 95% for Tone Telegraphy and Telephony.

Scintillation: To comply with Atlantic City standards.

AF input level: –20 dbm from 600 Ω line for full modulation.

Frequency response (telephony): ± 2 db from 250 to 3000 c/s.

Amplitude distortion (telephony): Not exceeding 6% for 80% modulation from 250 to 3000 c/s.

Noise level (telephony): –40 db with reference to full modulation.

Telegraph keying: Up to 160 bauds.

Power supply: 360–430 V ($\pm 5\%$), 50–60 c/s ($\pm 2\frac{1}{2}\%$), three-phase, four-wire AC mains.

Total power consumption (maximum): 32 kVA at 0.9 PF for four simultaneous FSK Channels.

Overall dimensions:

(for four RF units, power supply unit and modulator unit).

Height	Width	Depth
7 ft 6 in. (228 cm)	14 ft (427 cm)	3 ft 9 in. (114 cm)

Transmitter types (channel arrangement):

Type	CW	Telephony or Tone Telegraphy	FSK
HC 201	4	–	–
202	–	2	–
203	–	–	4
204	3	–	1
205	2	1	–
206	2	–	2
207	1	1	1
208	1	–	3
209	–	1	2

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