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SECTION 5

# AUDIO-FREQUENCY CIRCUITS

The Recommendations under subsections 5.1, 5.2 and 5.3 have been deleted.

## 5.4 Specifications recommended by the CCITT for audio-frequency cable circuits

### INTRODUCTION

The CCITT recommends Administrations to use the following specifications for the supply of audio-frequency telecommunication cables liable to be used in the international service (and also auxiliary equipment: loading coils, repeaters, etc.).

In these specifications, only the clauses relating to 4-wire circuits apply to international telephone circuits on loaded cables. All the specifications apply to national trunk circuits liable to enter into an international call, these being either 2-wire or 4-wire circuits.

The CCITT considers that the efficiency of such a long-distance cable (with several repeater stations) depends to a large extent on constructional details and the general arrangement of the system.

An Administration might prefer to place a contract with a firm for a complete system (cable and repeaters) instead of having their own specialist engineers assume the responsibility, which results from acceptance of the parts of the system separately. The CCITT proposes to recommend to such an Administration to obtain from the contractor detailed information regarding the project and to obtain all the necessary guarantees to ensure strict adherence

to the outline specification below. The Administration should give prior information to the contractor regarding the circuits necessary and estimated traffic.

Certain Administrations include in their specifications for underground cables details of methods of manufacture, laying, etc. These are not included in the following specifications, because the CCITT considers it is better to leave the various Administrations free to choose their own methods for manufacture and laying of cables, with the reservation that the complete circuits should satisfy the general conditions shown in Recommendation G.511 [1].

(See also the Annex to Recommendation G.543, headed ‘‘Different methods of cooperation between two Administrations for the construction of a loaded cable section crossing a frontier’’ [2].)

### References

[1] CCITT Recommendation *General characteristics of audio-frequency circuits* , Orange Book, Vol. III-1, Rec. G.511, ITU, Geneva, 1977.

[2] CCITT Recommendation *Specification for repeater sections of loaded telecommunication cable* , Orange Book, Vol. III-1, Rec. G.543, ITU, Geneva, 1977.

**Recommendation G.541**

**SPECIFICATION OF FACTORY LENGTHS OF LOADED**

**TELECOMMUNICATION CABLE**

**Recommendation G.542**

**SPECIFICATION OF LOADING COILS FOR LOADED**

**TELECOMMUNICATION CABLES**

**Recommendation G.543**

**SPECIFICATION FOR REPEATER SECTIONS**

**OF LOADED TELECOMMUNICATION CABLE**

**Recommendation G.544**

**SPECIFICATIONS FOR TERMINAL EQUIPMENT AND**

**INTERMEDIATE REPEATER STATIONS**

The four Recommendations listed above are in Volume III of the *Orange Book* . In these Recommendations, the characteristics of audio-frequency cable circuits are specified and these are useful for the design of cables, e.g., interstice quad of coaxial cable.

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