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CCITT

THE INTERNATIONAL
TELEGRAPH AND TELEPHONE
CONSULTATIVE COMMITTEE

O.11

(10/92)

SPECIFICATIONS OF MEASURING EQUIPMENT

MAINTENANCE ACCESS LINES



Recommendation O.11



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FOREWORD

The CCITT (the International Telegraph and Telephone Consultative Committee) is a permanent organ of the International Telecommunication Union (ITU). CCITT is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The Plenary Assembly of CCITT which meets every four years, establishes the topics for study and approves Recommendations prepared by its Study Groups. The approval of Recommendations by the members of CCITT between Plenary Assemblies is covered by the procedure laid down in CCITT Resolution No. 2 (Melbourne, 1988).

Recommendation O.11 was revised by Study Group IV and was approved under the Resolution No. 2 procedure on the 5th of October 1992.

CCITT NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized private operating agency.

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Recommendation O.11**MAINTENANCE ACCESS LINES***(Published 1972; revised 1984, 1988, and 1992)**Abstract*

Defines a number of test access lines for manual and automatic maintenance of international circuits.

Keywords

- automatic testing;
- maintenance access lines;
- testing.

1 General**1.1 Introduction**

In order to carry out manual and automatic maintenance of international circuits in an automatic telephone network more effectively, the following international maintenance access lines are recommended:

- a) a balanced quiet termination which initially returns a -10 dBm0 test tone;
- b) a maintenance test position or console access line with multiple access codes for both voice communications and/or circuit testing;
- c) a test line to terminate the echo suppressor testing system (ESTS);
- d) a loopback test line (analogue or digital);
- e) a test line to terminate the echo canceller test responder;
- f) a test line to terminate the signalling system functional testing and transmission measuring responder (type *a*) for use with ATME No. 2 (see Recommendation O.22 [6]);
- g) a test line which returns a busy flash signal for use with ATME No. 2 (also referred to as type *c* responding equipment, see Recommendation O.22 [6]).

These test lines should be provided as modular units so that each Administration may choose the number of each type it wishes to install at a given centre.

The test lines listed in a) to e) above will not provide reliable test results for a circuit which is routed through a circuit multiplication system (CMS) employing interpolation techniques [this includes the case where a circuit is routed over time division multiple access/digital speech interpolation (TDMA/DSI) satellite channels] and therefore should not be used in this instance unless a permanent trunk-channel association in both directions of transmission can be made for the duration of the test sequence. The reason for this is that without such a trunk-channel association, circuit continuity may not be maintained within the CMS in the absence of a signal and during very low signal level conditions.