Product Specification

Carrier-band IEEE 802.4

CBTester

The Carrier-Band Tester, CB Tester, is a field service instrument designed specifically for the carrier-band network as it is defined in the IEEE-802.4 standards. The CB Tester is used for the network's cable system component qualification, cable-system installation and verification. The following types of measurements are made with the CB Tester:

- Before installation, cable attenuation and structural return loss can be determined. Tap insertion loss, attenuation and return loss can be measured.

- During installation, the CB Tester and the Auxiliary Signal Generator (a standard accessory) are used to test the cable-system as it is being installed. The Auxiliary Signal Generator is used as a signal source at one end of the cable. The CB Tester is used to measure the signal strength and the return loss as the taps are installed along the trunk cable. The unique feature of this testing is that the Auxiliary Signal Generator and the CB Tester are synchronized with each other so that the signal strength and the return loss measurements can be made without having to turn the signal source on and off. With this technique, installation problems are identified as they occur and can be corrected immediately.

At the end of the installation process, the cable system is verified. This makes it unnecessary to go back to check the work and to locate any problems.

- After installation, the CB Tester is used to determine the amount of noise on the cable system.

- Prior to attaching a station to the cable-system, the CB Tester is used to determine the output signal level of the station.

These cable-system measurements normally require a number of individual pieces of test equipment that are difficult to use in the places where the network is installed. The CB Tester is portable, self-contained, and can work from its internal rechargeable battery.

With ordinary test equipment, an expert operator is required. The CB Tester is intended to be used by cable-system installation and maintenance personnel who do not have specific electronics training. The operations manual describes what measurements are to be made, how they are to be performed, and what values are to be expected.

Product specifications are subject to change without notice.

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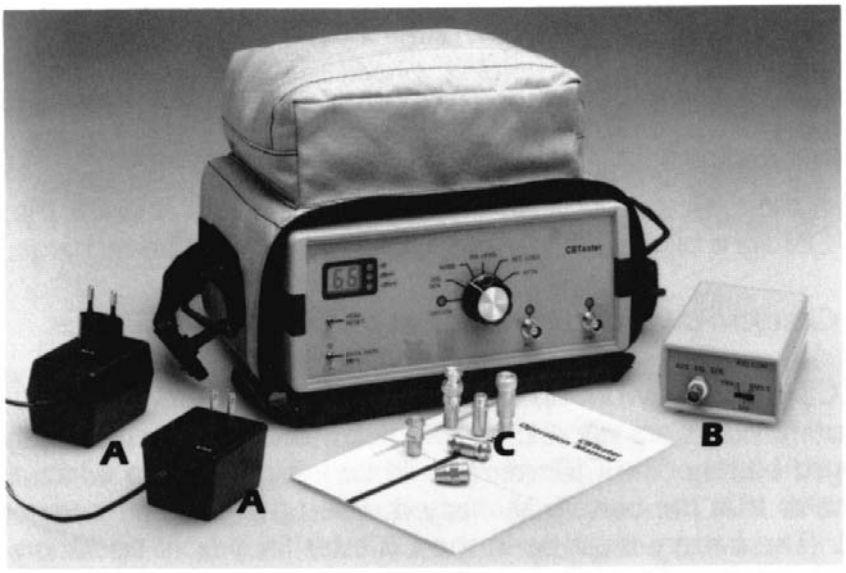

Accessories Included With the CBTester:

A. The **Charger/Power-plug** is used to eithe- power the CBTester or to charge the CBTester's internal battery. The Charger/Power-plug connects to the back of the CBTester. It is also used to power the Auxiliary Signal Generator. One type of Charger/Power-plug is used with 90/120 VAC; the other with 220/240 VAC power. (When ordering, please specify charger type).

B. **Auxiliary Signal Generator**. **ASG**. is used to provide signals for testing the installed cable system attenuation. The switch on the ASG selects a 10 MHz signal for a 5 MBit/sec. network or a 20 MHz signal for a 10 Mbit/sec. network.

C. **Adapter Connectors** are used to connect the CBTester to cables or to devices being tested. These include:

1. F-female to F-female
2. F-male to F-male
3. BNC-male to F-female
4. BNC-female to F-male
5. Quick connect F-male
6. Precision 75 ohm terminator

D. The padded **Carrying Case** protects the CBTester and allows it to be carried and used where it is needed. The pocket on the carrying case holds all the accessories.

E. The **Operation Manual**

F. **Probe Cable** (not shown) is used to connect the CBTester to the devices being tested.

Specifications:

Size: 4 x 10 x 7 inches; 10 x 26 x 18 cm.
Weight: 4.5 pounds; 2 kg.
Power: 120 VAC, 50-60 Hz to Power/Plug module. Adapters to other types of power lines are available.
Operation from internal battery: 6 hours minimum
Signal generator output level: 66±2 dBmV

Signal Level: measurement by peak detection method.
Range: 5 to 70 dBmV. Accuracy: ±2 dBmV

Noise level measurement by peak detection method.
Range: -25 to 0 dBmV. **Accuracy:** ±3 dBmV

Attenuation measurement accuracy:
±0.2 dB in 0 to 3 dB range,
±0.5 dB in 3 to 9.9 dB range
±2 dB in the 10 to 35 dB range.
Return Loss Range: 0 to 35 dB.
Accuracy: ±2dB