3.7 Digital loopback test

The digital loopback test line provides a dialable, 4-wire test line capability; it consists of circuitry that accepts and loops back received octets from a digital circuit. The octets when looped back, are retransmitted so that the positions of the bits within the octet are preserved; that is, the most significant bit of the retransmitted octet corresponds to the most significant bit of the received octet, and so forth.

The loopback may be integrated into the switching network of the automatic digital switching machine, or may be provided in a stand-alone mode, having an external 4-wire 64 kbit/s appearance on the switching machine, similar to existing test lines.

Once the tester has accessed the test line at a remote location, the tester may transmit the desired analogue test signals or digital test patterns. The tester may examine the returning signal for the received power (or continuity) of the analogue test signals or the error performance (or continuity) of the digital test patterns.

The proposed dialling plan for this test line enables a particular line to be selected when the distant switching centre is equipped for this type of dialling access. If the normal test line number (access code) is busy, it is expected that the call should route to a busy indication.

Recommendation 0.11

MAINTENANCE ACCESS LINES

1. GENERAL

1.5.2 Digital loopback test line

The digital loopback test line provides a dialable 4-wire test line capability intended both for use in measuring the error performance of international digital circuits and as a quick method of verifying the continuity of wholly digital, non-PCM encoded and mixed analogue/digital circuits. It consists of circuitry that accepts and loops back on a digital basis the signal from a circuit. The test signal may be any arbitrary digital test pattern or analogue test signal.