

# Tellabs® Multi-Service Access Series Digital Bypass Pair (DBP)

## Overview

The Tellabs 1000 Multi-Service Access (MSA) Series Digital Bypass Pair (DBP) plug-in card provides bypass pair test access to remote subscriber drops and channel test functionality. The DBP dynamically establishes test sessions using available time slots, thus eliminating the need for nailed-up test circuits.

The DBP provides a central office to remote terminal metallic bypass pair emulation using Tollgrade Communications, Inc. MCU® technology. This bypass pair emulation utilizes existing transport media between terminals, eliminating the need for a physical bypass pair. The DBP card provides bypass pair emulation for MLT and 4TEL test systems and also eliminates the need for a Pair Gain Test Controller (PGTC).

Bypass pair emulation is provided by installing one DBP card in the Local Exchange Terminal (LET) and a second DPB card at each Remote Subscriber Terminal (RST) where subscriber drop testing is required. One DPB card at the LET can host up to 15 remote DBP cards at RSTs providing an optimal cost and space saving solution.

This card supports all Tellabs 1000 multi-service access network topologies including ring, star, drop-and-insert, and tree configurations with up to 15 remotes in configurations up to five terminals deep (drop-and-insert) and five terminals wide (star configurations). The DBP also supports all universal and integrated Tellabs 1000 series configurations including seven groups of TR-8 Mode I and Mode II, GR-303, and ETSI V5.1 and V5.2 interfaces. All aspects of channel test capability per TR-8 are supported on the DBP card.

## Features and Benefits:

- Bypass pair emulation testing for MLT and (4TEL) Test Systems
- Supports universal and integrated configurations, including GR-303, TR-8 Mode I, and TR-8 Mode II
- Channel test terminations and ring detection per TR-TSY-465
- Supports TR-8 and GR-303 channel test capability
- Supports ring, drop-and-insert, and tree topologies



## LED Indicators

LED indicators located on the DBP faceplate indicate the following:

- Red FAIL — the card is in a failed state and unable to function properly
- Green ACTV — the DBP card is functioning properly
- Yellow BUSY — the DBP card is in communication with the remote DBP card
- Flashing yellow BUSY — the DBP card is self-calibrating

## Specifications:

### *Metallic Bypass Emulation*

- Leakage: >10 MOhms
- Noise: <25 dB rnCO
- DBP to DBP synchronization: <150 msec
- Pulse metering detection: 12 kHz or 16 kHz selectable
- Self calibration sequence: <45 seconds, approximately every hour (2 minute warm-up at installation)

### *Channel Test Circuit*

- A-D converter: -200 V to +200 V  $\pm$  1 V
- VF channel terminations: 600 Ohms and 900 Ohms
- Loop current detection: >2 mA

### *Environmental*

- Operating temperature: -40° to +149°F (-40° to +65°C)
- Humidity (relative): 5 to 95% non-condensing
- Maximum power consumption: 2.0 W

### *Dimensions*

- Height: 5.125 in (13.018 cm)
- Width: 0.563 in (1.429 cm)
- Depth: 10.5 in (26.67 cm)

### *Weight*

- 0.5 lb (0.23 kg)

### *Compliance*

- TR-TSY-465
- TR-NWT-000057

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74.1564E Rev. B 4/06