Tellabs® 1000 Multiservice Access Platform (MSAP) iGPE Physical Line Module (PLM)

Overview
The Tellabs® 1000 Multiservice Access Platform (MSAP) Integrated Gateway Processing Engine (iGPE) Physical Line Module (PLM) provides Voice Gateway (VGW) functionality to any Tellabs® 1000 MSAP configured as a VGW in the Tellabs® DynamicHome™ solution for Gigabit Passive Optical Network (GPON) Fiber-to-the-Premises (FTTP). The Tellabs 1000 MSAP provides flexibility in the access network and the ability to support emerging services, such as Voice over IP (VoIP). The Tellabs 1000 MSAP with the iGPE PLM supports seamless integration for VoIP calls from the Tellabs® 8865 ServiceAware Optical Line Terminal (OLT) or the Tellabs® 1150 MSAP to legacy Class 5 switches, supporting service providers’ efforts to transparently leverage existing voice switches while IP-enabling their access network. This incremental migration process enables service providers to provide triple play services (voice, video and data) cost effectively.

Features
- Support for Session Initiation Protocol (SIP)-enabled voice services from the SIP-capable Tellabs® 1600 Series Optical Network Terminal (ONT)
- Support for all the commonly used legacy Class 5 call features
- Support for GR-303, GR-08 and GR-57 switch interfaces, including simultaneous support of multiple switch interfaces
- Interoperability with leading Class 5 Switches, e.g., the 5ESS® switch, the DMS® switch, the EWSD® switch and the GTDS® switch
- IP-to-TDM interworking
- Support for standard line testing
- 1+1 redundancy
- Echo cancellation per G.168 specifications
- Tellabs 1000 MSAP Gigabit Ethernet network interface support
- Support for voice line unbundling

Application
The iGPE PLM enables VGW capabilities on the Tellabs 1000 MSAP, providing for protocol and IP/Time Division Multiplexing (TDM) interworking of VoIP calls traversing the Tellabs® 8865 OLT or the Tellabs® 1150 MSAP that are destined to a legacy Class 5 switch utilizing existing switch interfaces, e.g., GR-303, GR-08 and GR-57. In addition, the Tellabs 1000 MSAP, when configured as a VGW, provides a means for facilities-based Unbundled Network Element Loop (UNE-L) unbundling of GPON FTTP voice lines.

Management
The Tellabs 1000 MSAP with the iGPE PLM, when deployed with the Tellabs 8865 OLT, can be managed by the Tellabs® 1090 Network Management System (NMS). When the Tellabs 1000 MSAP with the iGPE PLM is deployed in conjunction with the Tellabs 1150 MSAP, the Tellabs® 1191 NMS can be used to manage both systems.

Figure 1. Tellabs 1000® Multiservice Access Platform-enabled Voice Gateway and Tellabs® 8865 ServiceAware Optical Line Terminal

Figure 2. Tellabs® 1000 Multiservice Access Platform-enabled Voice Gateway and Tellabs® 1150 Multiservice Access Platform
Specifications

Environmental
- Operating temperature: -5° C to +55° C
- Operating humidity: 90% relative humidity; not to exceed 0.024 kg water/kg of dry air
- Storage temperature: -40° C to +70° C
- Storage humidity: 93% relative humidity max at +40° C

Power
- Maximum power consumption: 7W
- Operating voltage: -48 V nominal; +5 V input

Dimensions
- Height: 4.875 in (12.383 cm)
- Width: 0.625 in (1.588 cm)
- Depth: 10.625 in (26.988 cm)

Weight
- 0.421 lb (0.191 kg)

LEDs
- ACTV/STBY — Green: Module in-service and active; Amber: Module in standby mode
- FAIL — Red: Module failed to power-up and boot properly
- SYNC — Unlit: Reserved for future use

Compliance
- RFC 3261
- GR-303
- GR-08
- GR-57
- GR-909
- UL 60950-1
- CSA 22.2# 60950-1
- NEBS Level 3 (GR-63 and GR-1089 compliant)

Ordering & Availability
- Part Number: 0101-0071

The Tellabs 1000 MSAP iGPE PLM works with Tellabs 1000 MSAP Software Release 11.2. Please contact your Tellabs sales representative or visit tellabs.com for more information.

Figure 3. Tellabs® 1000 Multiservice Access Platform (MSAP) iGPE Physical Line Module (PLM) faceplate