

# Tellabs® 1000 Multiservice Access Platform (MSAP) Gigabit Ethernet Transceiver (GbE221) — BBDLC

## Overview

The Tellabs® 1000 Multiservice Access Platform (MSAP) Gigabit Ethernet Transceiver (GbE221) is a high-bandwidth, cost-effective Gigabit Ethernet uplink interface for the Tellabs® 1000 MSAP Broadband Digital Loop Carrier (BBDLC) application. The GbE221 installs into the Tellabs 1000 MSAP to support Ethernet traffic aggregation for High Speed Internet (HSI) and IP Television (IPTV) applications. The GbE221 provides two Gigabit Ethernet ports equipped with optional configurations of 1000-Base-SX SFP and 1000-Base-LX SFP optics.

Network operators can use the GbE221 to provide new high-bandwidth Services. Virtual Local Area Network (VLAN) tagging (802.1q) and prioritization (802.1p) provide the capability to easily segregate traffic by service, customer and priority. Data services such as Transparent LAN Service (TLS) and IPTV services are supported by VLAN stacking (802.1ad) and Internet Group Management Protocol (IGMP) Version 2 and Version 3 snooping. Redundancy is supported with the implementation of Link Aggregation (LAG 802.3ad).

## Features and Benefits

- Two GigE Ports on a single card
- Small Form-factor Pluggable (SFP) optics supporting 1000Base-SX or 1000Base-LX with LC connectors
- Dynamic MAC learning with support for up to 8,000 MAC addresses
- 2 Gbps bandwidth capable with Link Aggregation (802.3ad)
- 4096 VLANs (802.1q) and stacked VLAN support (802.1ad)
- Queuing priority (802.1p) and mapping to Asynchronous Transfer Mode (ATM) Quality of Service (QoS) traffic profiles
- Traffic management on a per flow basis
- Multicast support with IGMP snooping for IGMPv2 and IGMPv3
- Dual memory for minimal service interruption during programming/software upgrades
- Fully managed through the Tellabs® 1090 Network Management System (NMS)

## Fiber Optic Interface

- SFP Optics
- GigE 1000Base-SX and 1000Base-LX options
- 850nm (SX) and 1310nm (LX) laser transmitter
- LC optical connector
- Single Mode (SM) or Multimode (MM) optical fiber

## LEDs

- Fail — Red LED if hardware or communications failure detected
- ACTV — Green LED if card is active and can carry traffic
- LINK 1 — Green LED if Link 1 is enabled and detects a valid Gigabit Ethernet link
- LINK 2 — Green LED if Link 2 is enabled and detects a valid Gigabit Ethernet link

## Specifications

### Environmental

- Operating Temperature: -40° C to +85° C
- Humidity: 5–95% non-condensing
- Average power consumption: 26W (21W min, 30W max)

### Dimensions

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

### Compliance

- GR-63-Core, GR-1089-Core
- 802.3z, 802.3ad
- 802.1q, 802.1p, 802.1ad

## Ordering Information

- GBE221 0120-0155 GIGABIT ETHERNET 2 PORT equipped with one SX SFP and one LX SFP
- GBE221 0120-0156 GIGABIT ETHERNET 2 PORT equipped with two LX SFPs
- GBE221 0120-0157 GIGABIT ETHERNET 2 PORT equipped with two SX SFPs



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