GE-4s plug-in card

D E S C R I P T I O N

The Calix C7 GE-4s plug-in card provides 4 Gigabit Ethernet interfaces. Each interface supports Layer 2 switching, Transparent LAN Services (TLS), 802.1Q VLAN tagging, MultiPoint-to-MultiPoint VLANs, VLAN stacking, Ethernet Packet Rings (EPR), Virtual Concatenation, and rate policing in 1 Mbps increments.

The Calix C7 GE-4s can be plugged into any of the 20 universal slots within the Calix C7 shelf. Physical access to each Gigabit Ethernet interface is provided through standard small form factor pluggable (SFP) optical transceivers inserted into the faceplate of the GE-4s card.

K E Y   A T T R I B U T E S

VIRTUAL CONCATENATION: The Calix C7 supports standard (ITU G.707-2000) Virtual Concatenation, enabling virtual concatenation of non-contiguous STS-1s (STS-1 to STS-21) in STS-1 increments—versus traditional SONET ADMs that use inefficient standard concatenated STS-1, STS-3c, or STS-12c SONET payloads.

ETHERNET PACKET RING: Ethernet Packet Rings provide a shared pool of bandwidth to all Ethernet ports, emulating a large LAN environment. EPRs are provisionable in STS-1 increments (STS-1 to STS-21) and support multiple point-to-point and multipoint-to-multipoint VLANS.

RATE-TUNABLE INTERFACES: Each Ethernet interface on the GE-4s is rate-tunable in 1 Mbps increments (ingress and egress) using standards-based IEEE flow-control 802.3x PAUSE frames.

VLAN TAGGING AND STACKING: The GE-4s supports 802.1Q VLAN tagging to differentiate customers from one another. VLAN stacking (VLAN double tagging) is supported for customers with pre-tagged 802.1Q frames. Up to 4093 VLANS are supported per XLAN.

INTERFACE DENSITY: The 14-inch high Calix C7 shelf can be equipped with up to 20 GE-4s cards for a total of 80 Gigabit Ethernet interfaces per shelf. Up to five shelves can be deployed in a single node configuration to deliver 400 GE interfaces from a single 7-foot bay.

FIELD-INSTALLABLE TRANSCEIVERS: The GE-4s features flexible physical interface options through support for industry standard, field-installable small form factor pluggable (SFP) optical transceivers. (Calix re-sells short- (SX) and intermediate- (LX) range SFPs for Ethernet applications and 1000BaseT SFPs for metallic applications. Contact your Calix Account Manager for specifications.

PLUG AND PLAY: New GE-4s cards can be added to the system with ease and minimum user intervention, allowing quick and easy turn up of new services. The GE-4s interoperates seamlessly with the FE-12s card.

Calix

SPECIFICATIONS

GE-4s plug-in card

ORDERING INFORMATION
Calix Part No. 100-00055

PORTS
4 Gigabit Ethernet interfaces
   per card
20 cards per shelf
80 GE interfaces per shelf
400 GE interfaces per 7-foot rack
   (5 shelves)

STATUS INDICATORS
ACTIVE: Green – Indicates card is
   active and operating properly
FAIL: Red – Indicates card has failed

POWER DISSIPATION
35 Watts per card

PHYSICAL DIMENSIONS
Size: 9.3 inches (height) x 0.7 inches
   (width) x 9.0 inches (depth)

OPERATING ENVIRONMENT
Temperature: –40 C to +65 C
   (–40 F to +149 F)
Humidity: 5 to 90% non-condensing
Altitude: to 13,125 feet

STORAGE TEMPERATURE
–40 C to +70 C (–40 F to +158 F)

NEBS LEVEL 3 COMPLIANCE
Telcordia GR-63-CORE, Network
   Equipment-Building System
   (NEBS) Requirements.
Telcordia GR-1089-CORE,
   Electromagnetic Compatibility and
   Electrical Safety.

SAFETY
NTRL-UL 60950-1

EMI/RFI
FCC Part 15 Class A

STANDARDS SUPPORT
IEEE 802.3, Ethernet (CSMA/CD)
IEEE 802.1Q, VLAN
IEEE 802.1D, MAC Bridging
ITU-G.707 Virtual Concatenation

1035 N. McDowell Blvd., Petaluma, CA 94954
tel: 877.766.3500 www.calix.com

#250-00074, Rev. 13