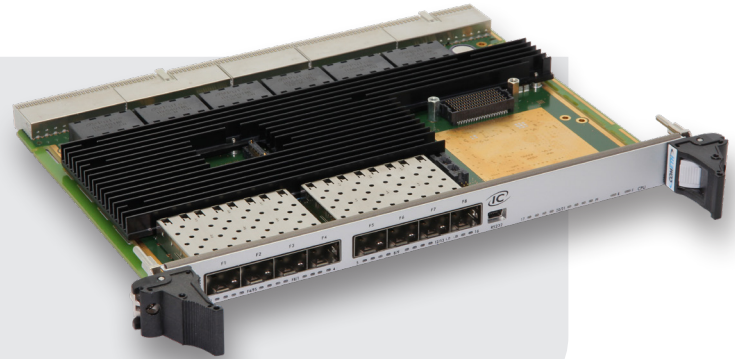


ComEth 4050e

6U cPCI 1/10/40 Gigabit Ethernet Switch

- *Managed Layer 2+/3 switch*
- *Up to 32 ports*
- *SFP+ (front)*
- *10/100/1000BASE-T (rear)*
- *PICMG 2.16 & VITA 31.1*



Overview

The **ComEth4050e** is a cutting-edge 6U cPCI Layer 2/3 Gigabit Ethernet switch, PICMG 2.16 and VITA 31.1 compliant.

Description

The **ComEth4050e** is powered by a state-of-the-art highly integrated Marvell system-on-a-chip (SoC) with programmable packet processors supporting a maximum bandwidth of 320 Gbps and a forwarding rate of 240 Mpps.

The ComEth40x0e line not only offers complete backward compatibility with the previous product generation, but also provides a large number of 10/40 Giga Ethernet ports, making these products unique compared to other cPCI and VME Ethernet switch products.

The **ComEth4050e** matrix coupled with an independent management processor is controlled by **Switchware**, our field-proven network management application.

In addition to a non-Flash device, a removable Flash disk allows storing switch configuration files and logs, offering flexibility to the user, and allowing sanitization when needed.

Ethernet interfaces

The **ComEth4050e** provides up to 32 Ethernet ports:

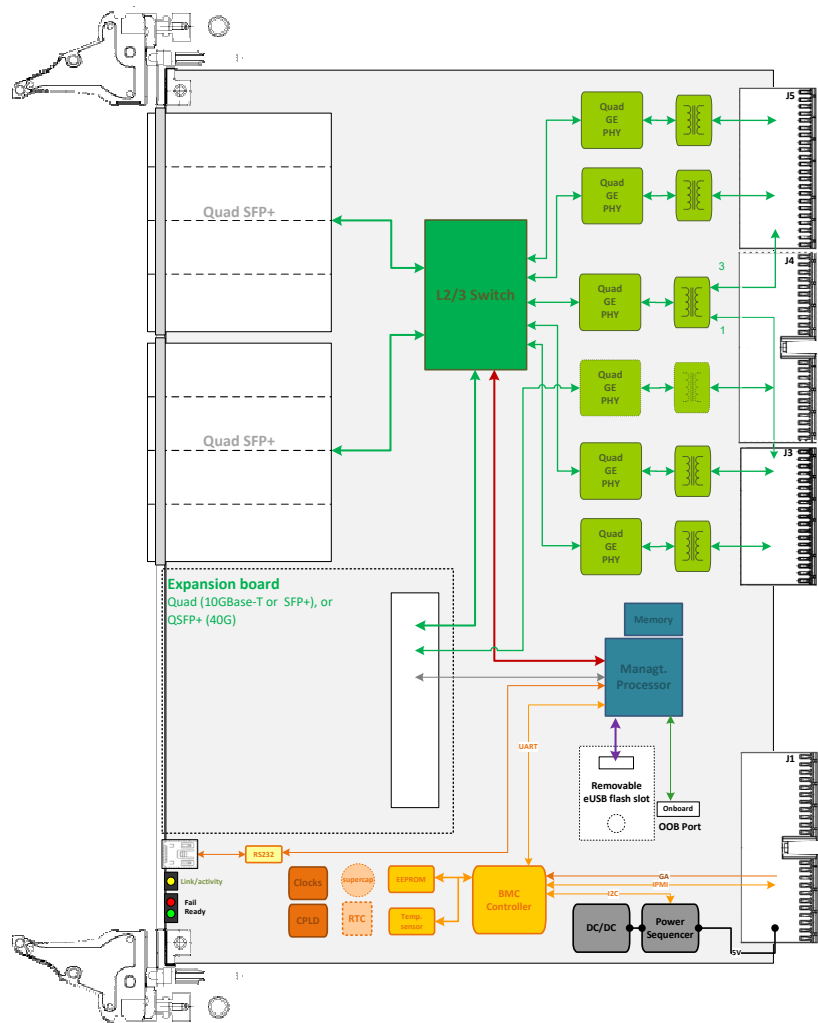
- 24 rear GbE ports and 8 front SFP+ (1/10Gbs)
- or
- 20 rear GbE ports, 8 front SFP+ (1/10Gbs) and a front interface mezzanine

The available mezzanines for this switch provide:

- 4 front SFP+ (1/10Gbs)
- 4 front 1/2.5/5/10GbE-BASE-T
- 1 front QSFP+ (40Gbs)

The **ComEth4050e** is available in standard, extended, rugged air-cooled and conduction-cooled grades, as per Interface concept environmental grades.

Block Diagram



Main features

Layer 1/2

- Speed, duplex, auto-negotiation, flow control and power management on all ports
- VLAN support / 802.1Q tagging
- Port mirroring
- Port rights management
- Static MAC address list
- Static IPM address list
- Port static authentication
- IEEE 802.1X authentication
- Ingress filtering
- Storm prevention
- QoS on all ports
- Ingress / egress access lists
- Rate limiting
- QoS remarking
- Static trunking / LACP
- STP / RSTP
- IGMP/MLD snooping

Security management

- Login/password, key or certificate authentication
- Secure switch management by HTTPS, SSH or SNMPv3
- 802.1X port-based authentication

QoS

- Layer 2 802.1p User Priority tagging
- Layer 3 IP DSCP (Diffsev)
- Access Control Lists (L2, L3, L4)

Multicast

- IGMP snooping (v1, v2, v3)
- MLD snooping (v1, v2)

Layer3

- ICMP
- Proxy-ARP
- DHCP-relay
- NAT
- IPv4 routing (unicast/multicast)

- Static IP routing (unicast and multicast)
- RIPv1, RIPv2 (IPv4)
- RIPng(IPv6)
- OSPFv2 (IPv4) / OSPFv3(IPv6)

Others

- PBIT results
- Temperature information
- CPU load
- Switch state
- Global and detailed ports statistics
- VLANs statistics
- Bridge egress, ingress and RMON statistics
- Ingress and egress access lists statistics
- Rate limiting statistics
- Queues and ingress buffers counters
- IGMP snooping state by VLAN and by port
- MAC address table access
- IPM address table access
- STP/RTSP state
- 1588-PTP-Transparent mode

Switch management

Switchware is a comprehensive switch management stack running on Interface Concept's Ethernet switch product line. It is running on the **ComEth4050e** on-board processor and supports a rich set of Layer 2/3 features controlled through the following interfaces:

- Graphical User Interface (GUI)
- Command Line Interface (CLI)
- SNMP (v2c or v3)

The **ComEth4050e** also supports VPX System Management in compliance with VITA 46.11 and based on the Intelligent Platform Management Interface (IPMI v1.5) for sensor management (temperature, voltage, current), inventory management, system configuration, recovery and diagnostic management.

Grades

Criterion	Coating	Operation Temperature	Rec. Airflow	Oper. HR% no cond.	Storage Temperature	Sinusoidal Vibration	Random Vibration	Shock 1/2 Sin. 11ms
Standard	Optional	0 to 55°C	1 .. 2 m/s	5 to 90%	-45 to 85°C	2G [20..2000]Hz	0.002g2 /Hz [10..2000]Hz	20G
Extended	Yes	-20 to 65°C	2 .. 3 m/s	5 to 95%	-45 to 85°C	2G [20..2000]Hz	0.002g2 /Hz [10..2000]Hz	20G
Rugged	Yes	-40 to 71°C or 85°C(+)	2 .. 5 m/s	5 to 95%	-45 to 100°C	5G [20..2000]Hz	0.05g2 /Hz [10..2000]Hz	40G
Conduction Cooled 71°C	Yes	-40 to 71°C at the thermal interface(+)		5 to 95%	-45 to 100°C	5G [20..2000]Hz	0.1g2 /Hz [10..2000]Hz	40G
Conduction Cooled 85°C	Yes	-40 to 85°C at the thermal interface(+)		5 to 95%	-45 to 100°C	5G [20..2000]Hz	0.1g2 /Hz [10..2000]Hz	40G

(+) Temperature grades are subject to availability according to IC products. Please consult us.

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All information contained herein is subject to change without notice.