

# ComEth 4050e

## 6U cPCI 1/10/40 Gigabit Ethernet Switch

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



## Description

The **ComEth 4050e** is a cutting-edge 6U cPCI Layer 2/3 Ethernet switch compliant with the PICMG 2.16 and VITA 31.1 standards.

Powered by the newest Marvell highly integrated system-on-chip (SoC) with programmable packet processors, the ComEth40x0e line not only offers complete backward compatibility with the previous generation of products, but also provides a high 10/40 Giga Ethernet port count, making these products unique compared to other cPCI and VME Ethernet switch products.

The ComEth40x0e matrix coupled with an independent management processor is controlled by Switchware, the field-proven Interface Concept network management application.

Switchware supports a wide range of Ethernet protocols and has an easy to use graphical user interface (GUI).

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.

### ComEth 4050e configurations

The **ComEth 4050e** offers up to 32 Ethernet ports in two different options:

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

The available mezzanines are:

- 4 front SFP+ (1/10Gbs)
- 2 front 1/2.5/5/10GigaE-baseT
- 1 front QSFP+(40Gbs).

### Switch Management

The management application, Switchware, is supported by the on-board processor of the **ComEth 4050e**. It provides a large number of network protocols (Layer 1/2/3).

The **ComEth 4050e** can be monitored via:

RS232 serial interface: CLI CONSOLE

Ethernet ports: TELNET or SSH, HTTP or HTTPS, SNMPv2c or SNMPv3 (Including private MIB)

FTP (or SFTP) can be used to:

- update or downgrade the switchware
- upload switchware configuration files
- download up-to-date MIB files.

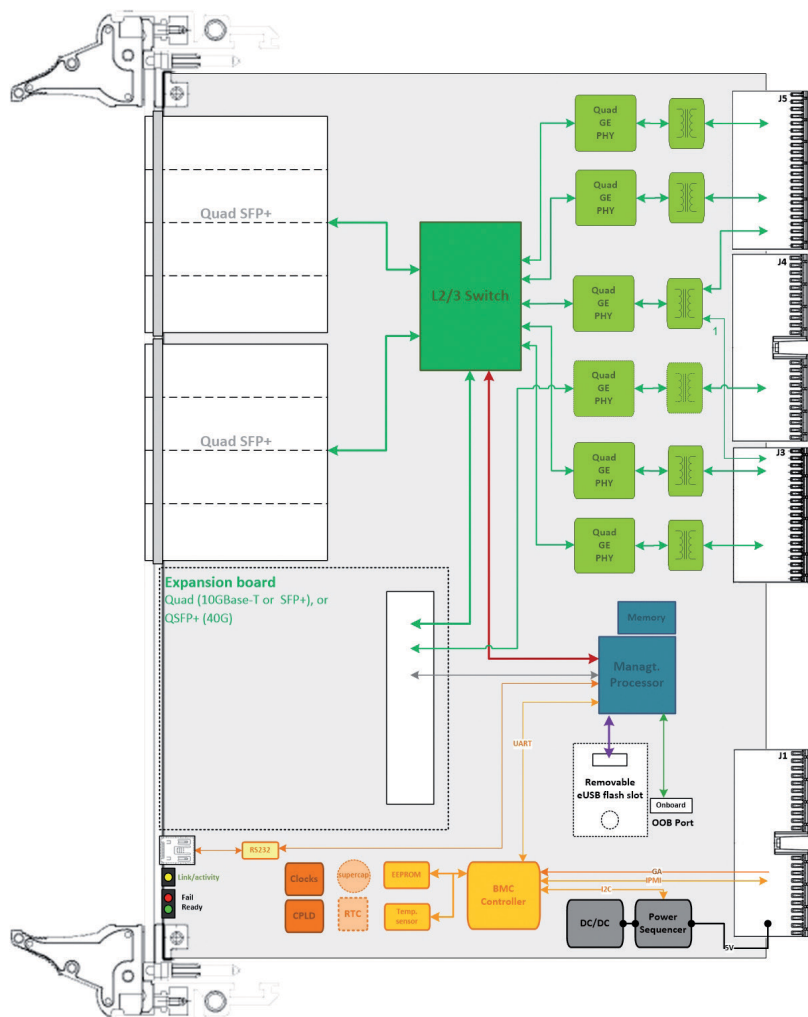
It is available in standard, extended, rugged air-cooled and conduction-cooled grades, as per Interface concept environmental grades.

**powerBridge**  
Computer

Ehlbeek 15a  
30938 Burgwedel  
fon 05139-9980-0  
fax 05139-9980-49

[www.powerbridge.de](http://www.powerbridge.de)  
[info@powerbridge.de](mailto:info@powerbridge.de)

### 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

# ComEth 4050e

6U cPCI 1/10/40 Gigabit Ethernet Switch

## 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 75°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	Yes	-40 to 75°C or 85° C at the thermal interface(+)		5 to 95%	-45 to 100°C	5G [20..2000]Hz	0.1g2 /Hz [10..2000]Hz	40G

(+): For some architectures, subject to limitation (or extension) depending on Frequency restriction / Processing usage rate. Consult us for more information.

All information contained herein is subject to change without notice.

[www.interfaceconcept.com](http://www.interfaceconcept.com)

For more information, please contact:



3, rue Félix Le Dantec  
29000 QUIMPER  
Tel. +33 (0)2 98 57 30 30  
Fax. +33 (0)2 98 57 30 00  
[info@interfaceconcept.com](mailto:info@interfaceconcept.com)