

ComEth4082e

3U VPX 1/10/40 Gigabit Ethernet Switch for hybrid copper-optical backplanes

- 3U VPX
- Managed Layer 2+/3 switch
- Slot profile SLT3-SWH-8U8T1J
- Up to 28 ports
- 1000BASE-T/KX, 10GBASE-KR/SR, 40GBASE-KR4/SR4
- Hybrid copper-optical backplane (VITA 46 & VITA 66.5)



Overview

The **ComEth4082e** is a cutting-edge 3U VPX Layer 2/3 Ethernet switch for hybrid copper-optical backplanes supporting legacy 10/100/1000Base-T Ethernet over twisted pair, 1/10/40G Ethernet over copper backplane as well as 1/10/40G Ethernet over optical backplane.

It offers a high density of 1GbE, 10GbE & 40GbE ports on a small 3U footprint, a high-level of flexibility in the switch configuration and a rich layer 1/2/3 feature-set.

Description

The **ComEth4082e** is powered by a Marvell multi-layer Ethernet switch device and a high-performance dual-core ARM7 CPU controlled by Interface Concept's field-proven network management software called «Switchware».

Ethernet Interfaces

The **ComEth4082e** supports up to 28 ports on the VPX backplane:

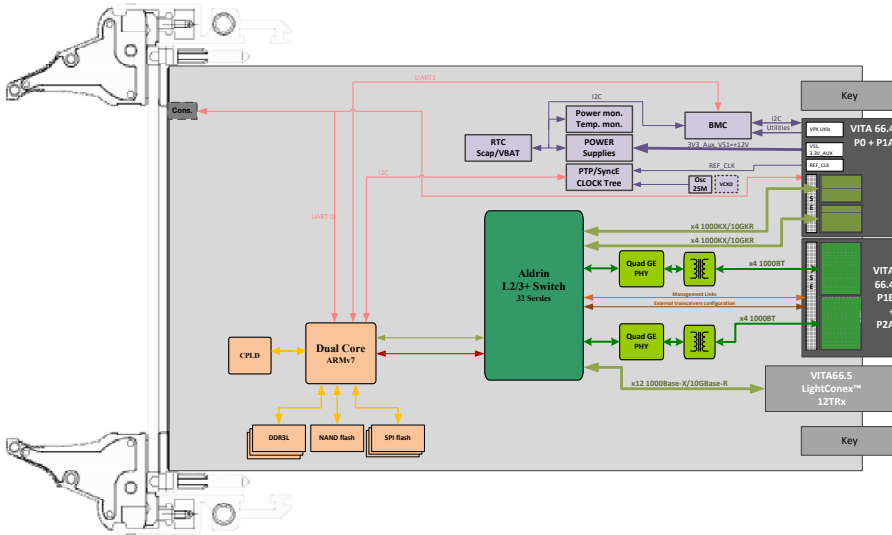
- 8 * 10/100/1000BASE-T [Ethernet on twisted pairs]
- 8 * 1GBase-KX/10GBASE-KR
- or
- 2 * 10GBASE-KX4/40GBASE-KR4 [Ethernet over copper backplane]
- 12 * 1000BASE-SX/10GBASE-SR
- or
- 3 * 40GBASE-SR4 [Ethernet over optical fiber/backplane]

The **ComEth4082e** is available in air-cooled and conduction-cooled versions.

ComEth 4082e

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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
- Temperatures and voltage information
- CPU load
- Switch state
- Global and detailed ports statistics
- VLANs statistics
- Bridge egress, ingress and RMON statistics
- Ingress and egress access list statistics
- Rate limiting statistics
- Queues and ingress buffer 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 **ComEth4082e** 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 **ComEth4082e** 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	0.002g ² /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	0.002g ² /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	0.05g ² /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	0.1g ² /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	0.1g ² /Hz [10..2000]Hz	40G

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

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