

# » RES2400/2404 «



## 24/28 Port 1G/10G High-End Rugged Ethernet Switch

- » **Powerful** 19" 1U fully managed non blocking L2/L3 switch
- » **Flexible, Easy to use**  
Up to 24x 1G RJ45 ports plus 4x 10G SFP+ ports, SNMP, command line and web management
- » **Reliable**  
High temperature range, high shock and vibration robustness, optionally fanless operation

## RES2400/2404

### High-End performance in 19 Inch Rack Format

The **Rugged Ethernet Switch RES** extends Kontron's existing Ethernet switch portfolio (ATCA, AMC, CompactPCI, VPX, etc.) by the requirements of standalone switches for harsh industrial and governmental applications. Using highest integration of Ethernet switch silicon the **RES2400/2404** is specifically designed for working reliably under harsh environmental conditions.

The **RES** is a cost effective manageable Ethernet switch solution offering more capabilities than just Gigabit Ethernet. It is available in 2 versions:

- » **RES2400:** 24x Gigabit Ethernet copper interfaces, supporting 10/100/1000BASE-T
- » **RES2404:** features of RES2400, additional 4x 1/10 Gigabit Ethernet SFP+ ports

### Key features

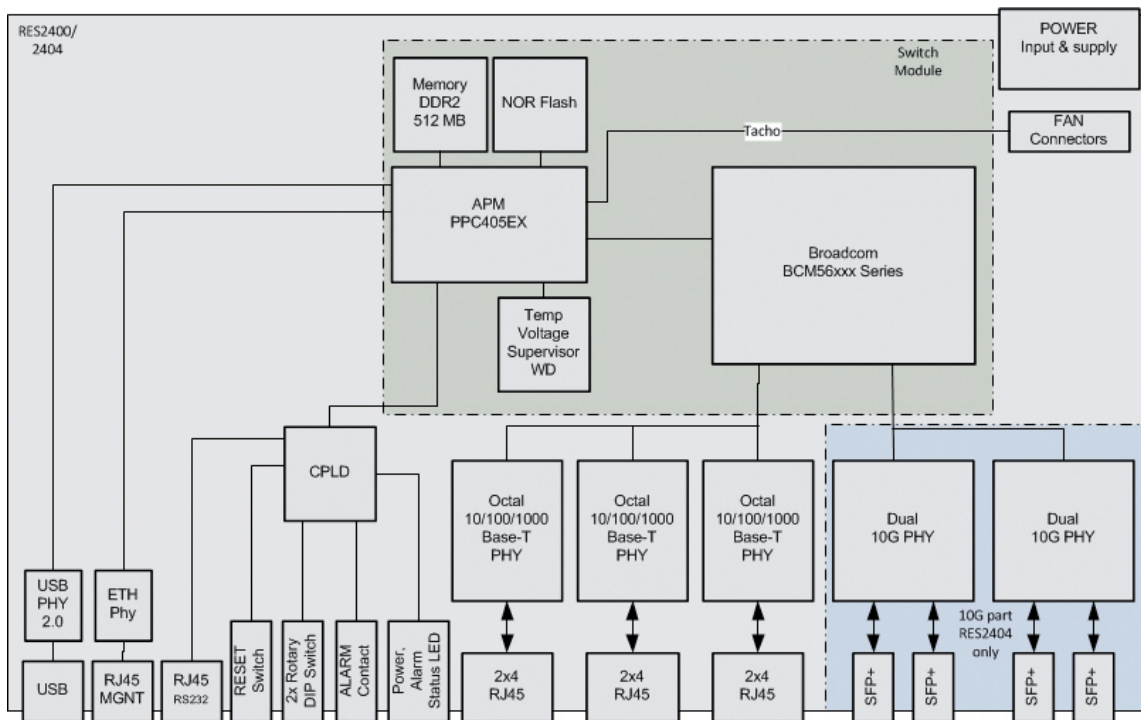
- » Fully managed Layer 2 / 3 non blocking Ethernet Switch, IPv6 support
- » 24 Ports 10/100/1000Base-T RJ45
- » 4x 10GBase-X SFP+ for direct attach copper or fiber
- » USB and DIP switches for configuration management
- » SNMP, command line and web management interface
- » 1U, 19 inch housing
- » Power supply for 110/230VAC or optionally 24VDC
- » Wide temperature range, -20°C to +70°C
- » Designed to meet industrial, naval and military norms

### Reliability

The robust mechanical design features including wide temperature range electronics and power supplies sets the foundation for systems, which require high availability and low total cost of ownership. Built-In test capabilities enable effective switch maintenance.

### Management

The RES2400/2404 can be monitored via remote SNMP. A comprehensive command line and web interface provides easy management and remote configuration by either serial or network interface. Support for comprehensive Ethernet switching/forwarding features, VLANs, Quality of Service and IPv4/IPv6 routing and Multicast, it is an ideal switch for diverse applications requesting high reliability and availability.



## Technical Information

	RES2400	RES2404
<b>Interfaces</b>		
10 Gigabit Ethernet	-	4x 10GBase-X SFP+ transceiver cages, configurable for 1GBase-X operation using SFP optical transceivers or direct attach copper
1 Gigabit Ethernet	24x RJ45 ports providing 10/100/1000Base-T modes of operation Power and reset Switch Serial and Ethernet management ports Status LEDs	
<b>Switch Controller</b>	Broadcom 10G/1G Ethernet Switch with up to 170Gb/s throughput PowerPC IBM PPC 600 MHz with 512MB DDR2 RAM	
<b>Management</b>	USB port and 2x DIP switches for user configuration  Layer 2/3 Management via SNMP Command Line (Telnet, SSH), web management console In-band - Out of band via Ethernet or RS232  Power On Self Test, Dual boot images with roll-back capabilities Field upgradable software  DHCP server, relay and Boot media support SNTP Client, diagnostic, multiple configuration support  Alarm contacts, freely programmable  Ethernet/Bridging protocols include: » Link aggregation (802.3ad) » VLANs (802.1Q) » QoS (IEEE 802.1p) » Spanning tree (802.1D, 802.1w) » Flow control (802.3x) » GARP/GVRP, GMRP  IPv4/IPv6 routing features: » ARP, ICMP, OSPF, RIP, VRRP, DVMRP  Enhanced Features are: » Egress ACLs, IP ACL support, DiffServ » Auto VoIP » IGMP snooping & proxy support » Startup configuration configurable » Watchdog » Cable test  MRP protocol, IEEE1588v2, PoE on project request	
<b>Options</b>		
<b>General</b>		
Power	110/230V, 40W; 24VDC (18 to 36VDC), 40W	110/230V, 62W; 24VDC (18 to 36VDC), 62W
Dimensions	19 inch, 1U Chassis 445 x 45 x 205 mm (WxHxD)	
Weight	2.5kg	
MTBF	92157h [MIL-HDBK-217 FN1 ; Method I Case 3; 25°C; GB]	
Temperature Range	-20°C to +70°C	
Humidity	93% RH at 40 °C, non condensing (acc. to IEC 60068-2-78)	
Shock Vibration	15G, 11ms 10 to 300Hz, 1G	
<b>Compliance</b>		
Shock / Vibration / Environment	IEC 60068-2-1, IEC 60068-2-2 IEC 60068-2-6, IEC 60068-2-27, IEC 60068-2-29, IEC 60068-2-78	
EMC	EN 55022, EN 55024 EN 61000-4-2/-3/-4/-5/-6 /-11	
Safety	EN 60950-1, UL60950-1	

## Ordering Information

Article	Description
<b>RES2400-AC</b>	<ul style="list-style-type: none"> <li>» 24 port Rugged Ethernet Switch</li> <li>» Fully managed L2/L3 19 inch, 1U Rack Switch</li> <li>» 24x 1G RJ45</li> <li>» 110/230V AC, 40W max.</li> <li>» -20°C to 70°C operating temperature</li> </ul>
<b>RES2404-AC</b>	<ul style="list-style-type: none"> <li>» 28 port Rugged Ethernet Switch</li> <li>» Fully managed L2/L3 19 inch, 1U Rack Switch</li> <li>» 4x 10G SFP+, 24x 1G RJ45</li> <li>» 110/230V AC, 62W max.</li> <li>» -20°C to 70°C operating temperature</li> </ul>
<b>Options</b>	<ul style="list-style-type: none"> <li>» 24 VDC</li> </ul>

Due to our technological know-how and existing building blocks, we also realize your custom specific switch design regarding your special requirements.

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