

C681

3U VPX Unmanaged GbE Switch



Embedded Computing
without Compromise



- Rugged 3U VPX Single-Slot Unmanaged Gigabit Ethernet Switch
- Multiple Port Configuration Options
 - ▶ Up to 10 Ports
 - ▶ 1000Base-BX/KX and 1000Base-T Port Options
 - ▶ Front Panel 1000Base-T Port in Air-Cooled Version
- Unmanaged, No User Configuration Required
- Full Wire-Speed Non-Blocking Forwarding
- Conduction and Air-Cooled Versions
- 2LM Option per VITA 48.2
- Vibration and Shock Resistant



www.rugged.com

C681

3U VPX Unmanaged GbE Switch



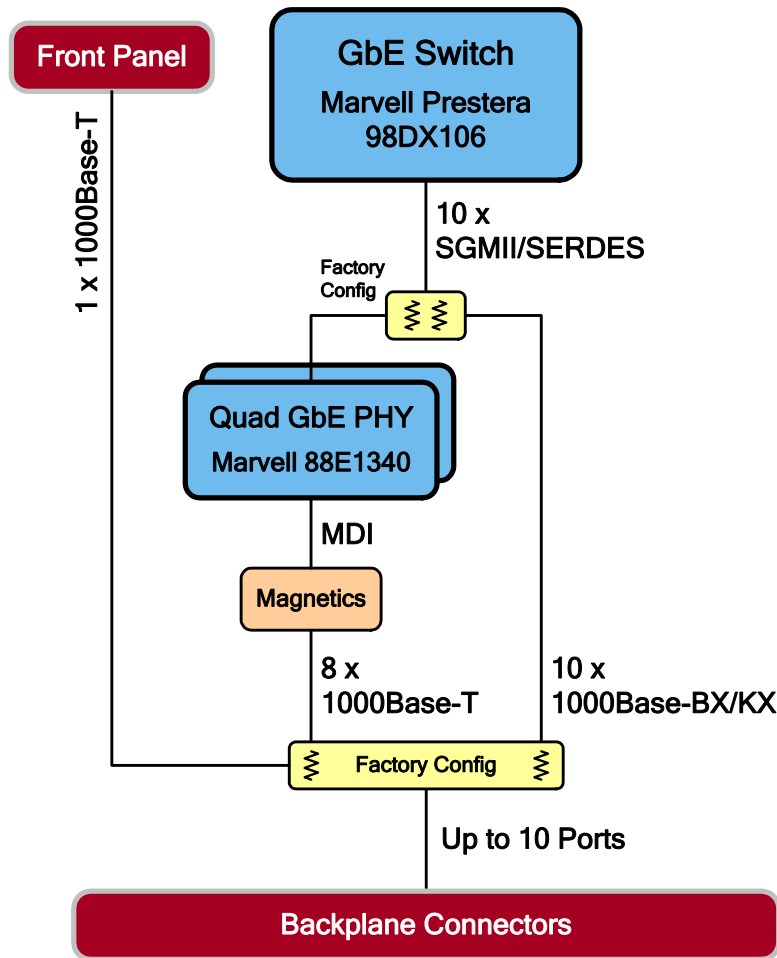
Embedded Computing
without Compromise

Aitech's C681 is a high-performance 3U VPX Unmanaged Gigabit Ethernet Switch for embedded and harsh environment applications.

Gigabit Ethernet switching is performed by the Marvell Prestera® 98DX106. The switch is unmanaged and does not require any user configuration.

The C681 is available in factory configured variants which offer different Ethernet port configuration options (1000Base-T or 1000Base-BX/KX).

1000Base-BX/KX ports support both backplane applications and external SFP modules. 1000Base-T ports support 10/100/1000 Mbps operation and are implemented with Marvell 88E1340 PHY devices and on-board magnetics modules.



I/O

I/O Variant ⁽¹⁾	Cooling	Backplane I/O		Front Panel I/O
		1000Base-BX/KX	1000Base-T	1000Base-T
1	Conduction	10	–	–
	Air	9	–	1
2	Conduction	–	8	–
	Air	–	7	1

Notes: (1) C681 I/O Variants offer different Ethernet port interfaces/quantities via factory configuration (options are specified when ordering the C681 and are not user configurable); additional Ethernet port configuration options may be available per customer request, contact an Aitech representative for more information

C681

3U VPX Unmanaged GbE Switch



Embedded Computing
without Compromise

Ethernet Switch Features

- Marvell Prestera® 98DX106 Ethernet switch device
- Unmanaged, no user configuration required
- Full wire-speed non-blocking forwarding
- Jumbo Frame support (up to 9 kB)
- 1 Mbit on-chip buffer memory
- 8k entries forwarding database
- Base-T auto-negotiation and auto cross-over (MDI/MDI-X)
- Full and half-duplex operation
- Port Status Indicator LEDs
- Additional Features available by Factory Configuration (contact an Aitech representative for information)
 - 802.1Q VLAN
 - Mirroring
 - QoS
 - Loopback
- OpenVPX/VITA 65 Slot Profiles (partially supported, compatible mapping of available ports/interfaces)
 - SLT3-SWH-2F24U (Variant 1)
9-10 x Ultra-Thin Pipes (1000Base-BX/KX ports)
 - SLT3-SWH-2F12T (Variant 2)
7-8 x Thin Pipes (1000Base-T ports)

Front Panel⁽¹⁾

I/O	One 1000Base-T port via RJ45 connector
Pushbuttons	Reset pushbutton
Indicator LEDs	Board status, power supply status, and Ethernet port link status

Notes: (1) Included only in air-cooled versions of the C681

Mechanical

	Form Factor & Dimensions ⁽¹⁾	Weight
Air-Cooled	3U VPX REDI per ANSI/VITA 48.1	< 470 g (1.04 lbs)
Conduction-Cooled	3U VPX REDI per ANSI/VITA 48.2	< 380 g (0.84 lbs)
Conduction-Cooled 2LM	3U VPX REDI 2LM (Two Level Maintenance) per ANSI/VITA 48.2	< 530 g (1.17 lbs)

Notes: (1) See *Ordering Information* below for available pitches

Power

+5V	Total ^(1, 2)
1.2 A	6 W

Notes: (1) C681 is powered by the +5V backplane power supply (+12V, +3.3V, +3.3V_AUX, and ±12V_AUX are not required)
(2) Total power consumption with all Ethernet ports active

Environmental

Specs per VITA 47	Air-Cooled			Conduction-Cooled	
	Commercial	Rugged	Military	Rugged	Military
Operating Temp.	AC1 (0 to +55°C) ⁽²⁾	AC3 (-40 to +70°C) ⁽²⁾	AC4 (-40 to +85°C) ^(1,2)	CC3 (-40 to +70°C) ⁽³⁾	CC4 (-40 to +85°C) ^(1,3)
Non-Operating Temp.	C1 (-40 to +85°C)	C3 (-50 to +100°C)	C4 (-55 to +125°C)	C3 (-50 to +100°C)	C4 (-55 to +125°C)
Vibration	V1	V2	V2	V3	V3
Operating Shock	OS1	OS1	OS1	OS2	OS2
Altitude	15,000 ft.	35,000 ft.	70,000 ft.	35,000 ft.	70,000 ft.
Relative Humidity⁽⁴⁾	0 - 90% 0 - 100%				
Conformal Coating	N/A Acrylic (Silicone and Urethane Optional)				

Notes: (1) -55°C available, contact an Aitech representative for more information (3) Operating card edge temperature
(2) Operating ambient air temperature (with sufficient airflow) (4) Non-condensing

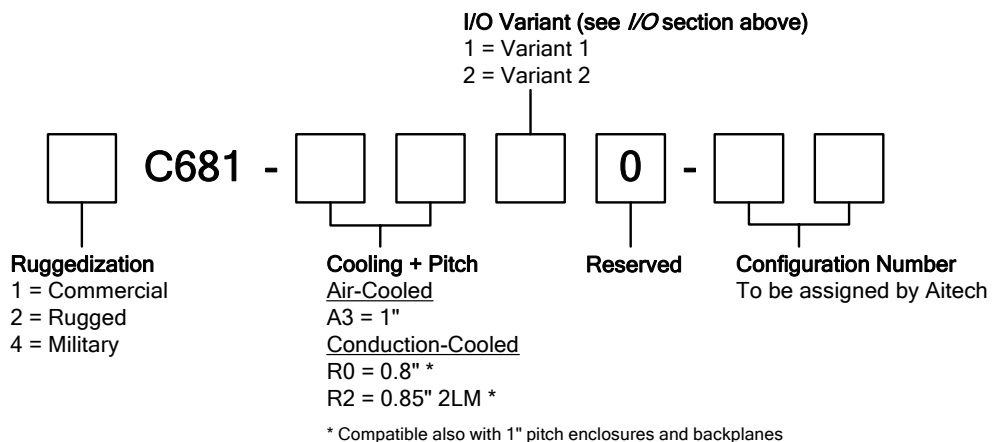
C681

3U VPX Unmanaged GbE Switch



Embedded Computing
without Compromise

Ordering Information



Example: 4C681-R020-00

Contact Aitech

Contact your Aitech sales representative for additional product information, and for inquiries regarding customized configurations of the C681 and additional software support.



Aitech Defense Systems, Inc.
Chatsworth, CA, USA
Toll Free: (888) Aitech-8 [248-3248]
Direct: +1 (818) 700-2000
Fax: +1 (818) 407-1502
Email: sales@rugged.com

www.rugged.com

Aitech Systems, Ltd.
Herzlia, Israel
Tel: +972 (9) 960-0600
Fax: +972 (9) 954-4315
Email: sales@rugged.com