I(P)GS-L6424M-XSFP

24x GigaT + 4x1G/2.5G/10G SFP L2+ Industrial Managed Ethernet Switch; 2DCI/2AC input models

OVERVIEW

Lantech I(P)GS-L6424M-XSFP is a high performance L2+ (All Gigabit) modular Ethernet switch with 24port Gigabit + 4x1G/2.5G/10G SFP (total 28ports) (w/24 PoE 802.3af/at ports) which provides L2+ wire speed and advanced security function for network aggregation deployment.

Up to 24 PoE at/af ports w/advanced PoE management

Compliant with 802.3af/at standard, the PoE model is able to feed each PoE port up to 30 Watt at each PoE port for various IP PD devices. It supports advanced PoE management including PoE detection and scheduling. PoE detection can detect if the connected PD hangs then restart the PD; PoE scheduling is to allow pre-set power feeding schedule upon routine time table. Each PoE ports can be Enabled/disabled, get the voltage, current, Watt, and temperature info displayed on WebUI.

Lantech OS3 Platform with complete L2 management and upgradable optional L3 & communication protocols

The switch runs Lantech OS3 platform which is powerful with complete Layer 2 management features and optional upgradable for future expansion, such as Layer 3 Lite, Layer 3, etc. To learn more about the Lantech OS3 Platform, please refer to **Lantech OS3/OS4 Software Datasheet**

Enhanced cybersecurity features with IEC 62443-4-1 certification

Lantech OS3 platform is designed with high standard of cybersecurity to prevent the threats from network attack such as DDoS attacks. To ensure the safety and reliability of communication networks, Lantech develops our products under strict international security standard and is certified with IEC 62443-4-1 network security standard. To learn more about Lantech cybersecurity software solution, please refer to **Lantech OS3/OS4 Software Datasheet**

Miss-wiring avoidance, node failure protection, Loop protection

The switch also embedded several features for strong and reliable network protection in an easy and intuitive way. When the pre-set ring configuration failed or looped by miss-wiring, the switch being able to alert with the LED

indicator and disable ring automatically. Node failure protection ensures the switches in a ring to survive after power breakout is back. The status can be shown in NMS when each switch is back. Loop protection is also available to prevent the generation of broadcast storm when a dumb switch is inserted in a closed loop connection.

User friendly GUI, Auto topology drawing, Enhanced Environmental Monitoring

The user-friendly UI, innovative auto topology drawing and topology demo makes the switch much easier to get hands-on. The complete CLI enables professional engineer to configure setting by command line. It supports enhanced environmental monitoring for actual input voltage, current, ambient temperature and total power load.

Editable configuration file; USB port for import/export configuration

The configuration file of the switch can be imported and edited with word processor for the following switches to configure with ease. The USB port can import/export the configuration from/to USB dongle and also to upgrade firmware from USB dongle. TFTP/HTTP firmware upgrade is supported.

Factory reset button

The factory reset button can restore the setting back to factory default.

2DCI/2AC inputs and dedicated PoE power source input

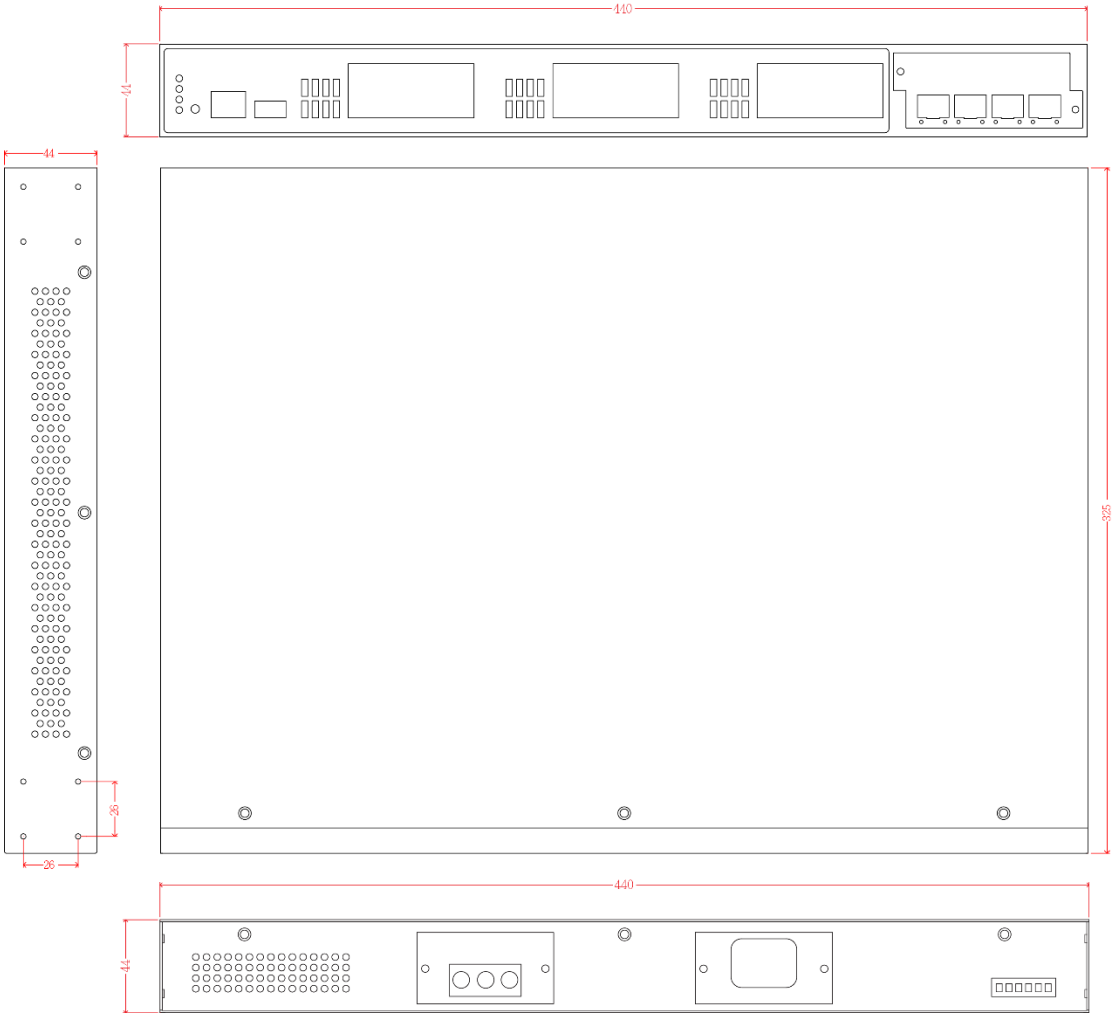
The chassis and modules of this switch are designed for easy maintenance and installation; It also supports 2DCI power supplies (galvanic isolated 16.8~137.5VDC) or 2AC (galvanic isolated 100~240VAC) input to increase the network reliability. The PoE model has independent PoE power source input by terminal block for connecting DC 48V PoE power source.

Industrial hardened design with high EFT and ESD protection

The switch features high reliability and robustness coping with extensive EMI/RFI phenomenon, environmental vibration and shocks usually found in factory, substation, steel automation, aviation, mining and process control. Featured with relay contact alarm function, the switch is able to connect with alarm system in case of power failure or port disconnection. It also provides 2000V EFT/SURGE and 6000V ESD CONTACT protection, which can reduce unstable situation caused by power line and Ethernet.

It is the best solution for Automation, transportation, surveillance, Wireless backhaul, Semi-conductor factory applications. The -E model can be used in extreme environments with an operating temperature range of -40°C to 75°C.

DIMENSIONS (unit=mm)



SPECIFICATIONS

Hardware Specification

IEEE Standards	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Ethernet IEEE 802.3ab 1000Base-T Ethernet IEEE 802.3z Gigabit Fiber IEEE 802.3ae 10G Ethernet over Fiber IEEE 802.3x Flow Control Capability ANSI/IEEE 802.3 Auto-negotiation IEEE 802.1Q VLAN IEEE 802.1p Class of Service IEEE 802.1X Access Control IEEE 802.1D Spanning Tree IEEE 802.1w Rapid Spanning Tree IEEE 802.1s Multiple Spanning Tree IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.1AB Link Layer Discovery Protocol (LLDP) IEEE 802.1x User Authentication (Radius) IEEE 802.3at/af PoE (IPGS-L6424M-XSFP)
Switch Architecture	Back-plane (Switching Fabric): 128Gbps
Mac Address	16K MAC address table
Jumbo frame	10KB
Connectors	24 10/100/1000T RJ-45 with auto MDI/MDI-X function Mini-GBIC: 4 x 1G/2.5G/10G SFP+ auto-sensing socket with DDMI
	RS-232 connector: RJ-45 type USB slot for upload/download config file
Network Cable	100Base-TX: 2-pair UTP/STP Cat. 5/ 5E/ 6 cable; EIA/TIA-568 100-ohm (100m) 1000Base-T: 4-pair UTP/STP Cat5E/6 cable; 10GBaseT:4-pair STP Cat6/6A/7 cable
Optical Cable	**1Gbps:** Multi-mode: 0 to 550 m, 850 nm (50/125 µm); 0 to 2 km, 1310 nm (50/125 µm) Single mode: 0 to 10 km/ 30 km/ 40 km, 1310 nm (9/125 µm); 0 to 50 km/ 60 km/ 80km/ 120 km, 1550 nm (9/125 µm) **2.5Gbps** Multi-mode: 0 to 300 m, 850 nm (50/125 µm); Single mode: 0 to 2 km/ 15 km/ 40 km, 1310 nm (9/125 µm); 0 to 40 km/ 80 km/ 100km, 1550 nm (9/125 µm) **WDM 1Gbps:** Single mode: 0 to 10 km/ 20 km/ 40 km/ 60 km, 1310 nm (9/125 µm); 0 to 80 km, 1490 nm (9/125 µm); 0 to 10 km/ 20 km/ 40 km/ 60 km/ 80 km, 1550 nm (9/125 µm) **WDM 2.5Gbps** Single mode: 0 to 5 km/ 20 km/ 40 km/ 60 km, 1310 /1550nm (9/125 µm); 0 to 80 km, 1490/1550 nm (9/125 µm)

	10Gbps Multi-mode: 0 to 300 m, 850 nm (OM3 50/125 µm); Single mode: 0 to 10 km/ 20 km, 1310 nm (9/125 µm); 0 to 40 km/ 80km/ 100 km, 1550 nm (9/125 µm) **WDM 10Gbps** Single mode: 0 to 10 km/ 20 km/ 40 km/ 60 km, 1270/1330 nm (9/125 µm); 0 to 80km, 1490/1550 nm (9/125 µm)
LED	Per unit: Power 1 (Green), Power 2 (Green), FAULT (Red); RM(Green) Ethernet port: Link/Activity (Green), Speed (Green); PoE** : Link/Act (Green); Mini-GBIC: Link/Activity (Green)
Operating Humidity	5% ~ 95% (non-condensing)
Operating Temperature	-20°C~60°C / -4°F~140°F (Standard model) -40°C~75°C / -40°F~167°F (-E model)
Storage Temperature	-40°C~85°C / -40°F~185°F
Power Supply	2DCI model: Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply 2AC model: Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply PoE power dual input for 48VDC (IPGS-L6424M-XSFP)
PoE Budget	720W (from separate PoE power supply) (50-56VDC input is recommended for 802.3at 30W applications) Higher PoE budget can be applied upon request. **
PoE pin assignment	RJ-45 port # 1~#24 support IEEE 802.3at/af End-point, Alternative A mode. (IPGS-L6424M-XSFP & PoE modules)

	Positive (VCC+): RJ-45 pin 1,2. Negative (VCC-): RJ-45 pin 3,6.
Power Consumption	28W
Case Dimension	Metal case. IP-30 440mm(W)x325mm(D)x44mm(H)
Weight	2.9 kgs
Installation	Rackmount Design
EMI & EMS	FCC Part 15, Subpart B ICES-003 Issue 7-2020 EN 55035: 2017/A11:2020 EN 55032: 2015/A11:2020 EN 61000-3-2:2014 EN 61000-3-3:2013 IEC 61000-4-2:2008 IEC 61000-4-3:2020 IEC 61000-4-4:2012 IEC 61000-4-5: 2014+AMD1:2017 CSV IEC 61000-4-6:2013/COR1:2015 IEC 61000-4-8:2009 IEC 61000-4-11:2020 IEC 61000-6-2:2016 IEC 61000-6-4:2018 BS EN 55035:2017+A11:2020 BS EN 55032:2015+A1:2020 BS EN IEC 61000-3-2:2019+A1:2021 BS EN 61000-3-3:2013+A2:2021
Safety	EN IEC 62368-1:2020 (LVD)
Stability Testing	IEC 60068-2-27* (Shock) IEC 60068-2-6* (Vibration)
MTBF	191,002 hrs (standards IEC 62380)
Warranty	5 years
Software Specification	
Lantech OS3 Platform	Download Software Datasheet

*Future release
**Optional

ORDERING INFORMATION

- **IGS-L6424M-XSFP-2DCI .....P/N: 8380-20012**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial Ethernet Switch Chassis
  Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply ; -20°C to 60°C
- **IGS-L6424M-XSFP-2DCI-E .....P/N: 8380-20013**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial Ethernet Switch Chassis
  Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply ; -40°C to 75°C
- **IGS-L6424M-XSFP-2AC-EU .....P/N: 8380-20072**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial Ethernet Switch Chassis
  Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply (EU plug) ; -20°C to 60°C
- **IGS-L6424M-XSFP-2AC-EU-E .....P/N: 8380-20073**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial Ethernet Switch Chassis
  Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply (EU plug) ; -40°C to 75°C
- **IGS-L6424M-XSFP-2AC-UK .....P/N: 8380-20028**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial Ethernet Switch Chassis
  Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply (UK plug) ; -20°C to 60°C
- **IGS-L6424M-XSFP-2AC-UK-E .....P/N: 8380-20029**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial Ethernet Switch Chassis
  Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply (UK plug) ; -40°C to 75°C
- **IGS-L6424M-XSFP-2AC-US .....P/N: 8380-20032**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial Ethernet Switch Chassis
  Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply (US plug) ; -20°C to 60°C
- **IGS-L6424M-XSFP-2AC-US-E .....P/N: 8380-20033**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial Ethernet Switch Chassis
  Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply (US plug) ; -40°C to 75°C

- **IPGS-L6424M-XSFP-2DCI ……..…….…….....P/N: 8380-20034**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial PoE Ethernet Switch Chassis
  Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply + 1x 48VDC PoE power input; -20˚C to 60˚C
- **IPGS-L6424M-XSFP-2DCI-E ……..…….…….....P/N: 8380-20035**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial PoE Ethernet Switch Chassis
  Built-in x2 galvanic isolated DC 16.8~137.5VDC power supply + 1x 48VDC PoE power input; -40˚C to 75˚C
- **IPGS-L6424M-XSFP-2AC-EU……...P/N: 8380-20066**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial PoE Ethernet Switch Chassis
  Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply (EU plug) + 1x 48VDC PoE power input; -20˚C to 60˚C
- **IPGS-L6424M-XSFP-2AC-EU-E ……...P/N: 8380-20067**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial PoE Ethernet Switch Chassis
  Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply (EU plug) + 1x 48VDC PoE power input; -40˚C to 75˚C
- **IPGS-L6424M-XSFP-2AC-UK……...P/N: 8380-20068**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial PoE Ethernet Switch Chassis
  Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply (UK plug) + 1x 48VDC PoE power input; -20˚C to 60˚C
- **IPGS-L6424M-XSFP-2AC-UK-E ……...P/N: 8380-20069**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial PoE Ethernet Switch Chassis
  Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply (UK plug) + 1x 48VDC PoE power input; -40˚C to 75˚C
- **IPGS-L6424M-XSFP-2AC-US……...P/N: 8380-20052**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial PoE Ethernet Switch Chassis
  Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply (US plug) + 1x 48VDC PoE power input; -20˚C to 60˚C
- **IPGS-L6424M-XSFP-2AC-US-E ……...P/N: 8380-20053**
  24x GigaT + 4x1G/2.5G/10G SFP+ Industrial PoE Ethernet Switch Chassis
  Built-in 2x galvanic isolated AC 100~240VAC IEC320 power supply (US plug) + 1x 48VDC PoE power input; -40˚C to 75˚C

OPTIONAL ACCESSORIES

Software package

Please refer to the software datasheet

DIN Rail Power

- **NDR-480 Series** 480W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)
- **NDR-240 Series** 240W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)
- **NDR-120 Series** 120W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C; For 115VAC, please refer to derating curve on NDR-120 Series datasheet)
- **NDR-75 Series** 75W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C; For 115VAC, please refer to derating curve on NDR-120 Series datasheet)

Mini GBIC (SFP)

- **8330-162D-V1** MINI GBIC 1000SX (LC/0.5km) Transceiver
- **8330-163D-V1** MINI GBIC 1000SX2 (LC/2km) Transceiver
- **8330-165D-V1** MINI GBIC 1000LX (LC/10km) Transceiver
- **8340-0591D-V1** MINI GBIC 1000LHX (LC/40km) Transceiver
- **8330-166D-V1** MINI GBIC 1000XD (LC/50km) Transceiver
- **8330-169D-V1** MINI GBIC 1000XD (LC/60km) Transceiver
- **8330-167D-V1** MINI GBIC 1000ZX (LC/80km) Transceiver
- **8330-170D-V1** MINI GBIC 1000EZX (120km) Transceiver
- **8330-168-V1** MINI GBIC 1000T (100m) Transceiver
- **8330-188D-V1** LTSFP-1000BX-10KM Transceiver (WDM 1310)
- **8330-189D-V1** LTSFP-1000BX-10KM Transceiver (WDM 1550)
- **8330-186D-V1** LTSFP-1000BX-20KM Transceiver (WDM 1310)
- **8330-187D-V1** LTSFP-1000BX-20KM Transceiver (WDM 1550)
- **8330-180D-V1** LTSFP-1000BX-40KM Transceiver (WDM 1310)
- **8330-182D-V1** LTSFP-1000BX-40KM Transceiver (WDM 1550)
- **8330-181D-V1** LTSFP-1000BX-60KM Transceiver (WDM 1310)
- **8330-183D-V1** LTSFP-1000BX-60KM Transceiver (WDM 1550)
- **8330-184D-V1** LTSFP-1000BX-80KM Transceiver (WDM 1490)
- **8330-185D-V1** LTSFP-1000BX-80KM Transceiver (WDM 1550)
- **8330-262D-V1** MINI GBIC 2.5G 850nm VCSEL (LC/0.3km) Transceiver
- **8330-263D-V1** MINI GBIC 2.5G 1310nm FP (LC/2km) Transceiver
- **8330-265D-V1** MINI GBIC 2.5G 1310nm DFB (LC/15km) Transceiver
- **8330-193D-V1** 10G Base SFP+ SR, Multi-mode (LC/300m) Transceiver
- **8330-194D-V1** 10G Base SFP+ LR, Single-mode (LC/10km) Transceiver
- **8330-223D-V1** 10G Base SFP+ LR, Single-mode (LC/1310nm/20km) DDM Transceiver
- **8330-225D-V1** 10G Base SFP+ LR , Single-mode (LC/1310nm /40km) DDM Transceiver
- **8330-205D-V1** 10G Base SFP+ LR , Single-mode (LC/1550nm/40km) DDM Transceiver
- **8330-209D-V1** 10G Base SFP+ , Single-mode(10km) Transceiver (WDM 1270)
- **8330-210D-V1** 10G Base SFP+ , Single-mode(10km) Transceiver (WDM 1330)
- **8330-200D-V1** 10G Base SFP+ , Single-mode(20km) Transceiver

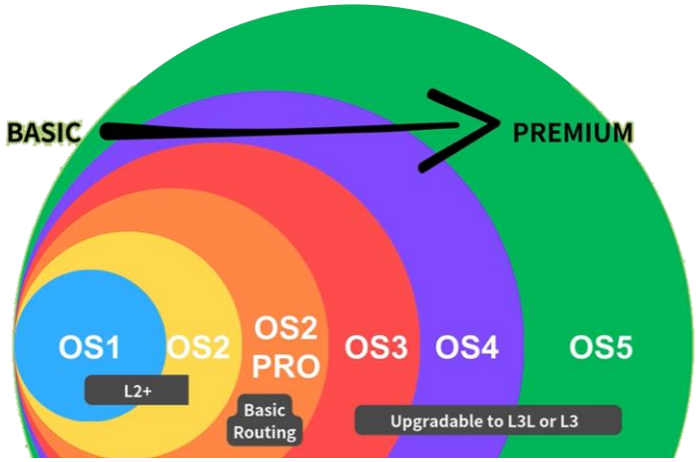
(WDM 1270)
- **8330-201D-V1** 10G Base SFP+ , Single-mode(20km) Transceiver (WDM 1330)
- **8330-202D-V1** 10G Base SFP+ , Single-mode(40km) Transceiver

(WDM 1270)
- **8330-203D-V1** 10G Base SFP+ , Single-mode(40km) Transceiver (WDM 1330)

All SFPs ended with D are with Diagnostic function

Managed Switch OS Generations

We offer a comprehensive range of managed switches, from OS1 and OS2 with rich L2+ management features, to OS2 PRO with basic routing functionality, and OS3, OS4, and OS5, which can be upgraded with optional Layer 3 Lite or Layer 3 capabilities to meet diverse customer needs. Note: Model differences include both software features and hardware specifications.



[LEARN MORE]

→ OS2PRO Generation

→ OS3/OS4 Generation

→ OS5 Generation

[CHECK THE DIFFERENCES]

→ Generation Comparison Table

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