

CROSS DOMAIN SOLUTION

ArrowLinux

Data Diode — Secure Information Gateway

Hardware-enforced one-way transfer for isolated networks. 1280 and 5000 Series.



ArrowLinux 1280

Model 1280



ArrowLinux 5000 Series

Models 5280 • 5282 • 5283 • 5284 • 5285

10 + 10 Gbps

Unidirectional media transfer rate (up to, model 5283)

1 + 1 Gbps

Peak file transfer throughput (model 5283)

1 in 5M

Maximum file loss rate, all models

EAL 4+

Common Criteria certified by CSA (5282, 5283, 5284, 5285)*

OVERVIEW

ArrowLinux is a high-assurance data diode engineered for secure information exchange across isolated networks. Patented SFP+ technology physically enforces unidirectional communication, while real-time file loss detection ensures reliable data transfer and maintains strict network isolation.

Certified to Common Criteria EAL 4+ by the Cyber Security Agency of Singapore (CSA)*, ArrowLinux supports secure file transfer, video streaming, VoIP and cross-domain integration. An integrated management portal and stackable architecture simplify deployment and third-party integration, helping prevent data leakage and malware injection while protecting mission-critical infrastructure.

Key Capabilities

Across the range

- 01 Hardware-enforced one-way security**
Patented SFP+ technology physically enforces unidirectional communication between segregated high-assurance networks.
- 02 High-performance data transfer**
High-volume information exchange with built-in file loss detection for reliable mission-critical operations.
- 03 Broad IT/OT protocol support**
Enterprise and industrial protocols for secure integration across IT, OT and critical infrastructure environments.
- 04 High-assurance protection**
Common Criteria EAL 4+ certification provides independently validated security for high-assurance deployments.*
- 05 Scalable system integration**
Stackable architecture and integrated management enable deployment alongside third-party security and cross-domain solutions.

Technical Highlights

High performance

- ◆ **Up to 10 + 10 Gbps**
Unidirectional media transfer rate.
- ◆ **Up to 1 + 1 Gbps**
File transfer throughput; more than 200 files/sec for files under 10 KB.
- ◆ **Industrial & messaging protocols**
HTTP(S), OPC UA / DA, MODBUS, IEC 104, MQTT, Kafka and RTSP (5000 Series).
- ◆ **Integrated operational management**
Health monitoring, alerts via SYSLOG, email and SNMP traps, NTP synchronisation and a self-service configuration portal.
- ◆ **CC EAL 4+ certified**
By the Cyber Security Agency of Singapore (CSA).*
Safety: FCC, CE, UL+CB, BSMI, VCCI.

*Common Criteria EAL 4+ certification by CSA Singapore applies to models 5282, 5283, 5284 and 5285 only. Models 1280 and 5280 are not CC certified. See the specification tables on pages 2 and 3.

Technical Specifications

ArrowLinux 5000 Series (5280 / 5282 / 5283 / 5284 / 5285)

Model	5280	5282	5283	5284	5285
PERFORMANCE					
Unidirectional media transfer rate	10 Gbps	10 Gbps	10 + 10 Gbps	10 Gbps	10 Gbps
File transfer throughput	500 Mbps	1 Gbps	1 + 1 Gbps	1 Gbps	1 Gbps
Small files (under 10 KB)	More than 200 files/sec				
File loss	No more than 1 file lost for every 5,000,000 files transferred				
HARDWARE & INTERFACES					
Memory	2 × 8GB RAM	2 × 8GB RAM	4 × 8GB RAM	2 × 8GB RAM	2 × 8GB RAM
Hard disk	2 × 880GB	2 × 1.8TB	4 × 1.8TB	2 × 1.8TB	2 × 1.8TB
Production network (per node)	2 × 1GbE (RJ-45) or 2 × 10GbE (SFP+), teamed network				
Management network (per node)	1 × 1GbE (RJ-45)				
Power supply	Up to 2 × 300W (redundant PSU)				
AC input	AC 110 to 240V @ 50/60Hz (5A max)				
INTEGRATED APPLICATION COMPUTER (MODEL 5285 ONLY)					
Processor	Intel® Xeon® W-1290TE • 10 cores / 20 threads • 1.80 GHz base • 20 MB cache				
Memory & storage	32 GB RAM • 1 × 1.8TB NVMe SSD				
Graphics & operating system	Intel® UHD Graphics (integrated), 1 x HDMI • Microsoft Windows 11, 64-bit (UEFI)				
Production network	2 × 10GbE (SFP+) • 2 × 1GbE (RJ-45)				
Fibre & management ports	2 × 10G fibre (SFP+) • 1 x management (RJ-45)				
Virtualisation & security	Intel® VT-x virtualisation • Credential Guard • Kernel DMA protection				
PHYSICAL (PER SERVER)					
Dimensions (H x W x D, cm)	4.40 × 43.00 × 76.00				
Weight	10.6 kg	10.6 kg	11.8 kg	10.6 kg	12 kg
Shipping dimensions (H x W x D, cm)	16.00 × 60.00 × 88.00				
Shipping weight	14.2 kg	14.2 kg	15.4 kg	14.2 kg	15.6 kg
ENVIRONMENT & RELIABILITY					
Operating	0 to 40°C • 10 to 95% RH				
Storage	-20 to 70°C • 10 to 95% RH				
MTBF	114,218 hrs	114,218 hrs	62,936 hrs	114,218 hrs	114,218 hrs
CERTIFICATION & CUSTOMS					
Security certification	—	CC EAL 4+ certified by CSA Singapore			
Safety certifications	FCC, CE, UL+CB, BSMI, VCCI				
Export control / HS code	Harmonised System (HS) Code 8517.62.61				

SUPPORTED NETWORK & DATA REPLICATION PROTOCOLS

TCP	UDP	SYSLOG	SNMP Traps	Probe Mode	Folders Mirroring (SMB, SAMBA)	SFTP	FTP	HTTP
HTTP(S)	SMTP	OPC (UA, DA)	Kafka	MODBUS (RS232/TCP)	IEC 104	MQTT	RTSP	

All 5000 Series models. Highlighted: industrial, messaging and streaming protocols. AVEVA PI Historian store-and-forward is supported through a third-party application.

OPERATIONS & MANAGEMENT (ALL MODELS)

Built-in health monitoring with alerts via SYSLOG, email (SMTP) and SNMP traps. NTP synchronisation through ArrowLinux. Self-service configuration portal.

Technical Specifications

ArrowLinux 1280 — compact data diode for file and network replication

Model	1280
PERFORMANCE	
Unidirectional media transfer rate	10 Gbps
File transfer throughput	200 Mbps
Small files (under 10 KB)	More than 200 files/sec
File loss	No more than 1 file lost for every 5,000,000 files transferred
HARDWARE & INTERFACES	
Memory	2 × 8GB RAM
Hard disk	2 × 880GB
Production network (per node)	2 × 1GbE (RJ-45) or 2 × 10GbE (SFP+), teamed network
Management network (per node)	1 × 1GbE (RJ-45)
Power supply	Up to 2 × 150W (redundant PSU)
AC input	AC 110 to 240V @ 50/60Hz (5A max)
PHYSICAL (PER SERVER)	
Dimensions (H x W x D, cm)	4.40 × 43.00 × 45.00
Weight	8.03 kg
Shipping dimensions (H x W x D, cm)	23.60 × 57.00 × 83.80
Shipping weight	16.1 kg
ENVIRONMENT & RELIABILITY	
Operating	0 to 40°C • 10 to 95% RH
Storage	-20 to 75°C • 10 to 95% RH
MTBF	93,703 hrs
CERTIFICATION & CUSTOMS	
Security certification	—
Safety certifications	FCC, CE, UL+CB, BSMI, VCCI
Export control / HS code	Harmonised System (HS) Code 8517.62.61

SUPPORTED NETWORK & DATA REPLICATION PROTOCOLS (1280)

TCP	UDP	SYSLOG	SNMP Traps	Probe Mode	Folders Mirroring (SMB, SAMBA)	SFTP	FTP
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CHOOSING A MODEL

	1280	5280	5282	5283	5284	5285
File transfer throughput	200 Mbps	500 Mbps	1 Gbps	1 + 1 Gbps	1 Gbps	1 Gbps
Industrial / OT protocols	—	✓	✓	✓	✓	✓
CC EAL 4+ (CSA Singapore)	—	—	✓	✓	✓	✓
Built-in application computer	—	—	—	—	—	✓
Chassis depth	45 cm	76 cm				

Industrial / OT protocols: OPC (UA, DA), MODBUS, IEC 104, MQTT, Kafka, RTSP, HTTP(S) and SMTP.