AEC Data Diode

Cross Domain CD-S-E-001

General Description

The core of the AEC Cross Domain Product lies in the hardware unit. This network solution enforces only two isolated one-way network connections. Using the AEC Cross Domain product will increase the security level of the company network. Also, it will control and filter the data flow on cross domain networks.

Physical Specifications

2U high rack mountable unit	
Casing dimensions H x W x D	88.9 x 434 x 700 mm
Front panel dimensions W x H	482.6 x 88.90mm
Weight (without two arm installation)	9.6 kg
Casing material	Aluminum
Rear panel functions	Data input/output
Front panel functions	Power push-buttons and LEDs indicators

Power Specifications

Power inlet	IEC 60320-C14 (male)
Power input	130 - 360VDC 100 ~ 255VAC, 50 - 60 Hz
Power consumption	330 watt

Networking Features

1. SYSLOG UDP (SYSLOG over UDP)
2. Raw UDP (support raw UDP data stream)
3. SYSLOG TCP (SYSLOG over TCP)
4. Raw TCP (support raw TCP data stream)
5. FTP (File Transfer Protocol)
6. SFTP (Secure File Transfer Protocol)
7. SCP (Secure Copy Protocol)
8. OSIsoft PI (web PI-API)

Environment

Operating environment	10 °C - 35 °C
Storage environment	-40 °C - 60 °C
Humidity range	20 - 90 % (non-condensing)

Cross Domain CD-S-E-001

Operates in a principle of bidirectional stream of data using two isolated unidirectional streams of data travelling in opposite directions. By hardware, it can only send data in one direction using optical fiber and it can have the data stream bidirectional but through isolated one-directional path.

This gives the ability of controlling and filtering the data flow of each data stream without affecting the other data direction.

The Cross Domain SW accepts/initiates the connection requests as per the protocol functionality and terminates full duplex protocols by permitting only one-way traffic through the Cross Domain in each data flow direction.

The SW is designed to handle high speed data flows simultaneously and is capable of transferring the data securely to the specified destination.

Rear Panel Interfaces:

Interfaces	
Power Switch	Three power switches, one for the low side, the second for the high side, and the third for the cross domain.
Power Inlet	3 independent power sockets for the low side, the high side, and the cross domain.
USB port	A total of 6 ports, 2 ports for the low side, 2 ports for the high side, and 2 ports for the cross domain.
VGA Interface	A total of 3 VGA ports, 1 for the low side, 1 for the high side, and 1 for the cross domain.
Admin Interface	A total of 3 admin ports, 1 for the low side, 1 for the high side, and 1 for the cross domain.
Data IN/Out ports	**CD-S-E-001:** 1Gbps Ethernet interface (RJ45) **CD-H-F-001:** 10Gbps Fiber interface (LC)