



KUSA - Traffic High Security Ethernet Switch

KUSA Intelligent Traffic Series

KY-3182RM: - 10 Port Managed Card Rack Ethernet Switch

The KY-3182RM Managed Ethernet switch is a purpose built Cyber Secure Traffic Switch. This Industrial Ethernet switch is designed for use inside NEMA and Non-NEMA Traffic Cabinets for use in input file racks.

KY-3182RM Configuration:
8 X 10/100 Base(T)X & 2 X 100/1000 SFP Slots

Power: (Backplane Provided) 9-36 Volts DC **Temperature Rating -40C to +80C**

Introducing the KY-3182RM, an industrial grade, high performance, low power, Managed Ethernet switch designed exclusively for Traffic & Railway use.



- CalTrans, NEMA TS-2, IPv6
- Fiber Optic Diagnostics & Measurements
- ElectroMagneticPulse (EMP) Certified
- Cyber Secure Video (CSV)
- Clean Code Technology
- DOS / DDOS Auto Detect
- Easy Configuration
- Low Power Consumption
- Easy IP Security with Cyber Locks
- 5 Year Warranty

KUSA KY-3182RM Features:

Highly Efficient Integrated Design

KY-3182RM supports multiple protocols, built-in Web Server, embedded DHCP Server & Client, IP Cyber Locks, Cyber Secure Video, DOS & DDOS Auto-Detect. Low Power consumption - smallest carbon footprint in its class.

Fiber Optic Diagnostics & Measurements

Advanced Fiber Optic Diganostics & Measurements - version 3. Measure continuous optical performance combined with network notifications and auto reroute capability.

Integrated & Automatic Security Features

Based on powerful silicon enhanced security detection and monitoring. Continuous security protection without operator intervention. Auto detection of DOS / DDOS attacks, fiber tampering, and intrusion detection

Intelligent Network Features

In order to ensure the maximum video experience across challenging and disparate customer network environments, the KY-3182RM can auto-dynamically adapt to network conditions using features such as MVR, and QOS which guarantees the best quality video and audio even up to 10% packet loss.

Traffic Partner Only Product

Only available through KUSA Authorized Traffic Partners
Made in USA - Kansas City, Missouri
99% American Steel Content // 1% Foreign Steel Content
KUSA is a Veteran Owned Small Business (VOSB)



KUSA CORPORATION

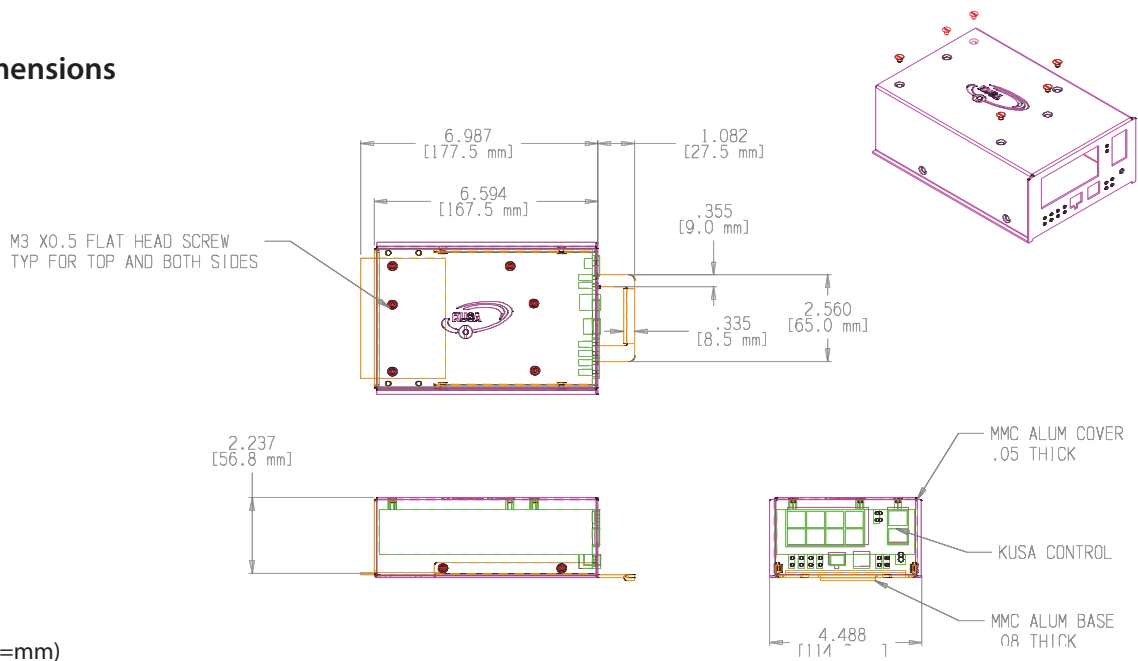
KUSA World Headquarters, 1107 SE Willow Pl
Blue Springs, MO 64014-5248, U.S.A

Telephone: (219) 595-2631 // (816) 988-7861
Fax: (480) 287-8605

Web Site: <http://kusa1.co>

Industrial Ethernet Switch

Dimensions



10/100Base(T)X RJ-45 Port	
RJ-45 Pin Definition	
Pin No.	Description
#1	TD+ with PoE Power input +
#2	TD- with PoE Power input +
#3	RD+ with PoE Power input -
#6	RD- with PoE Power input -

1000Base(T) X RJ-45 Port	
RJ-45 Pin Definition	
Pin No.	Description
#1	BI_DA+ with PoE Power input +
#2	BI_DA- with PoE Power input +
#3	BI_DB+ with PoE Power input -
#4	BI_DC+
#5	BI_DC-
#6	BI_DB- with PoE Power input -
#7	BI_DD+
#8	BI_DD-



KUSA - Network Security for the 21st Century - Traffic Product

KUSA Industrial Ethernet Switch

KY-3182RM

Physical Ports	
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	8
100/1000Base-X SFP Port	2
Technology	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3z for 1000Base-X IEEE 802.3x for Flow control IEEE 802.3ad for LACP (Link Aggregation Control Protocol) IEEE 802.1D for STP (Spanning Tree Protocol) IEEE 802.1p for COS (Class of Service) IEEE 802.1Q for VLAN Tagging IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol) IEEE 802.1X for Authentication IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)
MAC Table	8192 MAC addresses
Priority Queues	4
Processing	Store-and-Forward
Switch Properties	Switching latency : 6 μ s Switching bandwidth : 5.6Gbps Max. Number of Available VLANs : 4096 IGMP multicast groups : 1024 Port rate limiting : User Defined
Security Features	Enable/disable ports, MAC based port security // CYBER-SECURE Video Port based network access control (802.1x) VLAN (802.1Q) to segregate and secure network traffic Supports Q-in-Q VLAN for performance & security to expand the VLAN space Radius centralized password management SNMP v1/v2c/v3 encrypted authentication and access security
Software Features	STP/RSTP/MSTP (IEEE 802.1D/w/s) Redundant Ring with recovery time less than 10ms over 300 switches TOS/Diffserv supported Quality of Service (802.1p) for real-time traffic VLAN (802.1Q) with VLAN tagging and GVRP supported IGMP v2/v3 (IGMP snooping support) for multicast filtering Port configuration, status, statistics, monitoring, security SNTP for synchronizing of clocks over network Supports PTP Client (Precision Time Protocol) clock synchronization DHCP Server / Client support Port Trunk support MVR (Multicast VLAN Registration) support, Protocol 41 (IPv6 and IPv6 Secure)
Network Redundancy	Ring Open-Ring RSTPe STP RSTP MSTP
Warning / Monitoring System	Relay output for fault event alarming / Fiber Diagnostic Monitoring // DDMI Syslog server / client to record and view events Include SMTP for event warning notification via email Event selection support
RS-232 Serial Console Port	RS-232 in RJ45 connector with console cable. Baud rate setting: 9600bps, 8, N, 1
LED Indicators	
Power Indicator	Green : Power LED x 3
R.M. Indicator	Green : Indicates that the system is operating in Ring Master mode
Ring Indicator	Green : Indicates that the system is operating in Ring mode
Fault Indicator	Amber : Indicates unexpected events occurred
10/100Base-T(X) RJ45 Port Indicator	Green for port Link/Activity Amber for Duplex/Collision
100/1000Base-X SFP Port Indicator	Green for port Link/Activity

KUSA - Network Security For The 21st Century

Industrial Ethernet Switch

Fault Contact	
Relay	N/A
Power	
Input Power	9~36 Volts DC (Backplane)
Power Consumption (Typical)	9 Watts
Overload Current Protection	YES
Reverse Polarity Protection	YES
Physical Characteristics	
Enclosure	IP-30
Dimensions (W x D x H)	2 SLOT Input File for NEMA and Non-NEMA Cabinets
Weight (g)	730 g
Environmental	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-40 to 80°C (-40 to 176°F)
Operating Humidity	5% to 95% Non-condensing
Regulatory Approvals	
EMI and EMP (NNEMP)	FCC Part 15, CISPR (EN55022) class A and Oak Ridge National Laboratory
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-11. EN61000-4-6 (CS), EN61000-4-8
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Safety	EN60950-1
MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C)	297,689 (HOURS)
Warranty	5 years
Fiber Optic / DDMI Optical Diagnostics	
DDMI	Digital Diagnostic & Monitoring Interface / with Silicon Security Enhancements
Cryptologic	
Cyber-Secure Video with Clean Code Technology	NSA / CSS Coding Guidelines / with Silicon Enhancements
Exceeds NEMA TS-2 for Traffic Control Equipment	



ORDER Model	PRODUCT	DESCRIPTION
	KY-3182RM	Industrial 10-Port Managed Ethernet Switch with 8 x 10/100Base-T(X) and 2 x 100/1000Base-X, SFP Sockets, DDMI / PTP / DHCP CYBER-SECURE Video & Clean Code Technology



KUSA
1107 SE Willow Place
Blue Springs, Missouri 64014

www.KUSA1.co



Telephone: (219) 595 - 2631
(816) 988 - 7861
FAX: (480) 287 - 8605
EMAIL: SALES@KUSA1.co

Networks That Serve People

KUSA - An American ECO Engineering Company