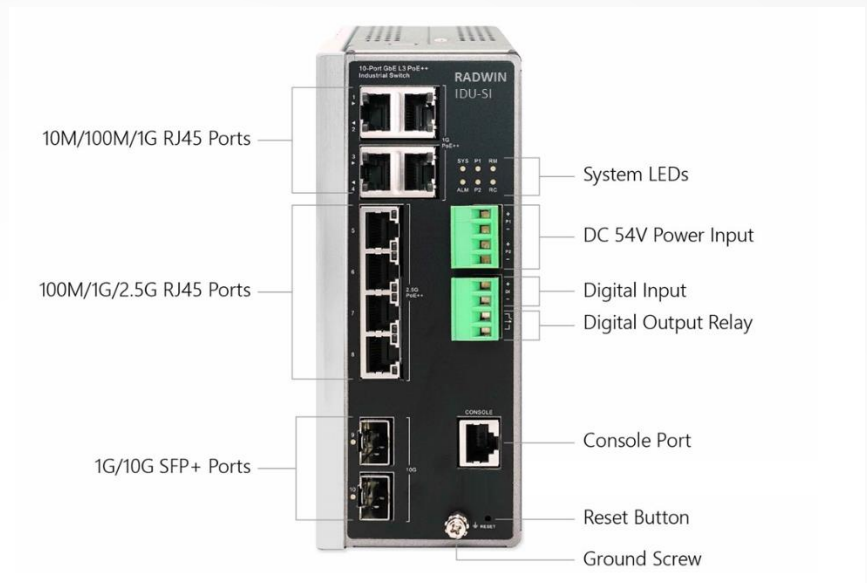# RADWIN

IDU-SI

Datasheet

RW-7400-8008

Product Description

» IDU-SI is a new addition to the RADWIN series of Indoor Units, designed to provide carrier-class, industrial-grade Ethernet switching capabilities. The IDU-SI is a rugged, L2 and L3 switch that supports PoE for powering RADWIN radios as well as third-party devices such as CCTV cameras, Wi-Fi outdoor access points, IoT Gateways, etc.

» Extremely compact, it supports a wide temperature range (-40 to +75 Celsius) and comes with a DIN rail mounting kit with digital I/O relays, making it suitable for outdoor cabinet installations.

» The IDU-SI is fanless, relying on passive cooling, and is extremely robust with extended MTBF, providing reliable and consistent performance.

» The IDU-SI is typically sold in conjunction with RADWIN's PtP and PtMP radios, but it can also be used as a standalone L2/L3 switch for various applications.

Product Highlights

» DIN-rail mount, fanless, carrier-class, industrial-grade, extended temperature Ethernet switch.

» Supports up to 8 x RADWIN ODUs and standard PoE devices.

» Two uplink SFP+ ports of 10GbE/1GbE.

» 8 RJ45 user ports. Four rated up to 1GbE and supporting 90W, and 4 rated up to 2.5GbE supporting up to 90W PoE.

» Comprehensive Layer 2 switching and advanced Layer 3 routing capabilities.

» Carrier-class protected ring topologies supporting EPS (G.8031), ERPS (G.8032) and mission-critical Rapid Ring or MRP with a self-recover time of less than 20ms.

» Redundant, dual DC power input.

» Managed by CLI, web GUI or RADWIN WINManage NMS.

Product Specifications:

Ethernet interfaces	
2.5 Gbps POE Ports	4x RJ-45 ports (100/1000/2500BaseTX with auto-negotiation) 90W POE++ (802.3af/at/bt and RADWIN POE support)
1 Gbps POE Ports	4x RJ-45 ports (10/100/1000BaseTX with auto-negotiation) 90W POE++ (802.3af/at/bt and RADWIN POE support)
PoE features	Automatic detection of 802.3af/at/bt and RADWIN/passive POE PoE watchdog, POE power-up delay timer
Cable Length	CAT-5e up to 75m (1Gbps or 2.5Gbps), up to 100m (100Mbps)
SFP Ports	2x dual speed 1/10Gbps SFP+ (1000BaseX / 10GBaseX)
Console Port	RJ-45 (RS-232)
Grounding	Ground wire connection point
LEDs	DC Power Status, System Status, Alarm, Ring Status, POE status and Link/Activity/Speed for each POE port, Link/Activity/Speed for each SFP/SFP+ port
Dry Contact	1 Digital Input / 1 Digital Output Relay
Switch capabilities	
MAC Addresses entries	16K
Switching Capacity	68Gbps
Forwarding Rate	58Mpps
Maximum Frame Size	10240 Bytes (Jumbo Frame)
L2 Features	
VLAN	Up to 4K; VLAN group; Tagged based
Link Aggregation	803.ad and LACP; up to 5 groups
IGMP snooping	IGMP Snooping V1/V2/V3; IPv6 MLD snooping
Storm Control	Broadcast; Multi-Cast; Unicast
Spanning Tree	STP (802.1d); RSTP (802.1w); MSTP (802.1s)
DHCP	DHCP Server, DHCP Client, DHCP Relay
PTP	IEEE 1588v2 Precision Time Protocol
Flow Control	802.3x (Full); Back-Pressure (Half)
L3 Features	
Static Routing	IPv4 and IPv6 Unicast
Routing Information Protocol	RIPv1/v2
Link-state routing protocol	OSPFv2/v3
QoS Features	
Number of priority Queues	8 queues per port
Rate Limiting	Support Ingress & Egress – Resolution of 1Kbps
Scheduling	WRR; Strict; Hybrid
Class of Service	IEEE 802.1p; DiffServ (RFC2474)
Classification and remapping	Based on ingress CoS and L2/L3/L4 criteria

Security features

802.1x	• RADIUS authentication, authorization, and accounting, MD5 hash, guest VLAN, single/multiple host mode and single/multiple sessions • Supports IGMP-RADIUS based 802.1X • Dynamic VLAN and QoS assignment
HTTPS / SSL / TLS	Secure Web GUI
SSH 2.0	Secure CLI
ACL	Supports up to 512 entries. Drop or rate limitation based on: • Source and destination MAC, VLAN ID or IP address, protocol, port • Differentiated services code point (DSCP) / IP precedence. • TCP/ UDP source and destination ports • 802.1p priority • Ethernet type • Internet Control Message Protocol (ICMP) packets • TCP flag
Loop Protection	Supported
BPDU Guard	Supported
DHCP Snooping	Supported

Management features

Management Protocols	HTTP/HTTPs, SSH, Telnet, SNMPv1/v2c/v3, RADIUS, TACACS+
Web GUI Interface	Built-in switch configuration utility for browser-based device configuration
CLI	Support
Event/Error Log	Support SNMP Trap/Syslog/SMTP
SNMP	Version1, 2c, 3
NTP	Support
LLDP	Support
Port Mirroring	Support
Remote Monitoring (RMON)	Embedded RMON agent supports RMON groups 1,2,3,9 (history, statistics, alarms, and events) for enhanced traffic management, monitoring and analysis
Firmware Upgrade	Web browser upgrade (HTTP/ HTTPs) and TFTP Upgrade through console port as well
UPnP	Supported
s-Flow	Supported
Dual Image	Independent primary and secondary images for backup while upgrading

Mechanics

Dimensions	73 x 168 x 130 mm / 2.44 x 6.61 x 5.11 Inches (w*h*d) – includes aluminum bracket
Weight	1.6 kg / 3.53 lbs
Mounting	DIN rail mount (included)

Power

DC Input Voltage	44~57 VDC when feeding IEEE 802.3af PDs or RADWIN ODUs 50~57 VDC when feeding IEEE 802.3at PDs 52~57 VDC when feeding IEEE 802.3bt PDs
Total PoE budget	360W
Device Power Consumption	<30W (without PoE)

Environmental

Operating Temperatures	-40°C to 75°C / -40°F to 167°F (passive cooling – fanless)
Humidity	Up to 95% non-condensing

Regulatory compliance:

Safety	IEC 62368-1:2014 EN 62368-1:2014+A11:2017 cTUVus UL 62368-1 cTUVus CAN/CSA-C22.2 No.62368-1-14
EMC	EN 300 386 EN 55032 EN IEC 61000-3-2 EN IEC 61000-3-3 EN 55035 IEC 61000-4-2 (ESD), IEC 61000-4-3 (RS), IEC 61000-4-4 (EFT), IEC 61000-4-5 (Surge), IEC 61000-4-6 (CS), IEC 61000-4-8, (MFI) IEC 61000-4-11 (Dips)
FCC	Part 15 Subpart B Class A
CAN/CSA	ICES 003 Issue 7 Class A
AS/NZS	CISPR32 Class A

Product ordering:

Product Number	Name/Description	
RW-7400-8008	Managed switch IDU-SI/HP/ET/8xETH/2xSFP+	
Power units	**Product Name**	**Description**
RW-9921-0086	AC/IDU-S/C14	AC Power Adaptor (90-240VAC to 54VDC) 480W with C14 plug

Datasheet information can be changed by manufacturer without prior notice