

RM-G4000 Module Series

Fast Ethernet and Gigabit modules for RKS-G4028 Series rackmount Ethernet switches

Features and Benefits

- -40 to 75°C operating temperature range
- IEC 61850-3 and IEEE 1613 compliant



Certifications



Introduction

The RM-G4000 Module Series includes Gigabit and Fast Ethernet modules for the RKS-G4000 Series rack-mount Ethernet switches. Each RM-G4000 Series module supports up to 8 ports with a variety of interface types including TX, MSC, SSC, and MST media types. Additionally, the RM-G4000-8GPoE and RM-G4000-8PoE modules provide the RKS-G4000 Series PoE models with high-capacity PoE functionality. IEEE 1588 interface modules provide hardware-based PTP functions for precise time synchronization across the network.

Specifications

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	RM-G4000-8TX: 8 RM-G4000-2MSC4TX: 4 RM-G4000-2MST4TX: 4 RM-G4000-2SSC4TX: 4 RM-G4000-4MSC2TX: 2 RM-G4000-4MST2TX: 2 RM-G4000-4SSC2TX: 2
10/100/1000BaseT(X) Ports (RJ45 connector)	RM-G4000-8GTX: 8
100/1000BaseSFP Slots	RM-G4000-8GSFP: 8
100BaseSFP Slots	RM-G4000-8SFP: 8
100BaseFX Ports (multi-mode SC connector)	RM-G4000-6MSC: 6 RM-G4000-2MSC4TX: 2 RM-G4000-4MSC2TX: 4
100BaseFX Ports (multi-mode ST connector)	RM-G4000-6MST: 6 RM-G4000-2MST4TX: 2 RM-G4000-4MST2TX: 4
100BaseFX Ports (single-mode ST connector)	RM-G4000-6SSC: 6 RM-G4000-2SSC4TX: 2 RM-G4000-4SSC2TX: 4
PoE Ports (10/100/1000BaseT(X), RJ45 connector)	RM-G4000-8GPoE: 8

PoE Ports (10/100BaseT(X), RJ45 connector)	RM-G4000-8PoE: 8				
Optical Fiber			100BaseFX		
			Multi-Mode	Single-Mode	
	Fiber Cable Type	OM1	50/125 μm	G.652	
			800 MHz x km		
	Typical Distance		4 km	5 km	40 km
	Wavelength	Typical (nm)	1300		1310
		TX Range (nm)	1260 to 1360		1280 to 1340
		RX Range (nm)	1100 to 1600		1100 to 1600
	Optical Power	TX Range (dBm)	-10 to -20		0 to -5
		RX Range (dBm)	-3 to -32		-3 to -34
		Link Budget (dB)	12		29
		Dispersion Penalty (dB)	3		1
	<p>Note: When connecting a single-mode fiber transceiver, we recommend using an attenuator to prevent damage caused by excessive optical power.</p> <p>Note: Compute the “typical distance” of a specific fiber transceiver as follows: Link budget (dB) > dispersion penalty (dB) + total link loss (dB).</p>				

Power Parameters

Power Consumption (Max.)	RM-G4000-8TX: 4.22 W RM-G4000-8GTX: 4.22 W RM-G4000-8PoE: 4.75 W RM-G4000-8GPoE: 4.75 W RM-G4000-8SFP: 6.91 W RM-G4000-8GSFP: 6.91 W RM-G4000-6MSC: 4.61 W RM-G4000-6MST: 4.61 W RM-G4000-6SSC: 5.47 W RM-G4000-2MSC4TX: 2.88 W RM-G4000-2MST4TX: 2.88 W RM-G4000-2SSC4TX: 3.17 W RM-G4000-4MSC2TX: 3.74 W RM-G4000-4MST2TX: 3.74 W RM-G4000-4SSC2TX: 4.03 W
--------------------------	--

Physical Characteristics

Weight	RM-G4000-8TX: 300 g (0.66 lb) RM-G4000-8GTX: 300 g (0.66 lb) RM-G4000-8PoE: 500 g (1.10 lb) RM-G4000-8GPoE: 500 g (1.10 lb) RM-G4000-8SFP: 400 g (0.88 lb) RM-G4000-8GSFP: 400 g (0.88 lb) RM-G4000-6MSC: 400 g (0.88 lb) RM-G4000-6MST: 400 g (0.88 lb) RM-G4000-6SSC: 400 g (0.88 lb) RM-G4000-2MSC4TX: 400 g (0.88 lb) RM-G4000-2MST4TX: 400 g (0.88 lb) RM-G4000-2SSC4TX: 400 g (0.88 lb) RM-G4000-4MSC2TX: 400 g (0.88 lb) RM-G4000-4MST2TX: 400 g (0.88 lb) RM-G4000-4SSC2TX: 400 g (0.88 lb)
--------	---

MTBF

Time	RM-G4000-8TX: 12,132,675 hrs RM-G4000-8GTX: 12,132,675 hrs RM-G4000-8PoE: 2,063,404 hrs RM-G4000-8GPoE: 2,063,404 hrs RM-G4000-8SFP: 3,005,803 hrs RM-G4000-8GSFP: 3,005,803 hrs RM-G4000-6MSC: 2,183,161 hrs RM-G4000-6MST: 2,183,161 hrs RM-G4000-6SSC: 2,183,161 hrs RM-G4000-2MSC4TX: 2,891,502 hrs RM-G4000-2MST4TX: 2,891,502 hrs RM-G4000-2SSC4TX: 2,891,502 hrs RM-G4000-4MSC2TX: 2,469,891 hrs RM-G4000-4MST2TX: 2,469,891 hrs RM-G4000-4SSC2TX: 2,469,891 hrs
Standards	Telcordia (Bellcore), GB

Warranty

Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x RM-G4000 Series module
Documentation	1 x warranty card

Ordering Information

Model Name	10/100/ 1000BaseT(X) Ports	10/100BaseT(X) Ports	100/ 1000BaseSFP Ports	100BaseSFP Ports	100BaseFX Ports Multi- mode, SC Connector	100BaseFX Port Multi-mode, ST Connector	100BaseFX Port Single-mode, SC Connector
RM-G4000-8GTX	8	-	-	-	-	-	-
RM-G4000-8TX	-	8	-	-	-	-	-
RM-G4000-8GSFP	-	-	8	-	-	-	-
RM-G4000-8SFP	-	-	-	8	-	-	-
RM-G4000-6MSC	-	-	-	-	6	-	-
RM-G4000-6MST	-	-	-	-	-	6	-
RM-G4000-6SSC	-	-	-	-	-	-	6
RM-G4000-4MSC2TX	-	2	-	-	4	-	-
RM-G4000-4MST2TX	-	2	-	-	-	4	-
RM-G4000-4SSC2TX	-	2	-	-	-	-	4
RM-G4000-2MSC4TX	-	4	-	-	2	-	-
RM-G4000-2MST4TX	-	4	-	-	-	2	-
RM-G4000-2SSC4TX	-	4	-	-	-	-	2
RM-G4000-8GPoE	8 (IEEE 802.3bt PoE)	-	-	-	-	-	-
RM-G4000-8PoE	-	8 (IEEE 802.3bt PoE)	-	-	-	-	-

Accessories (sold separately)

SFP Modules

SFP-1FELLC-T	SFP module with 1 100Base single-mode with LC connector for 80 km transmission, -40 to 85°C operating temperature
SFP-1FEMLC-T	SFP module with 1 100Base multi-mode with LC connector for 4 km transmission, -40 to 85°C operating temperature
SFP-1FESLC-T	SFP module with 1 100Base single-mode with LC connector for 40 km transmission, -40 to 85°C operating temperature
SFP-1G10ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G10ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G10BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G10BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1G20ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G20ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G20BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G20BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1G40ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G40ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G40BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G40BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1GEZXC	SFP module with 1 1000BaseEZXC port with LC connector for 110 km transmission, 0 to 60°C operating temperature
SFP-1GEZXC-120	SFP module with 1 1000BaseEZXC port with LC connector for 120 km transmission, 0 to 60°C operating temperature
SFP-1GLHLC	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, 0 to 60°C operating temperature
SFP-1GLHLC-T	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, -40 to 85°C operating temperature
SFP-1GLHXC	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature
SFP-1GLHXC-T	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, -40 to 85°C operating temperature
SFP-1GLSXC	SFP module with 1 1000BaseLSX port with LC connector for 500 m transmission, 0 to 60°C operating temperature
SFP-1GLSXC-T	SFP module with 1 1000BaseLSX port with LC connector for 500 m transmission, -40 to 85°C operating temperature
SFP-1GLXLC	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, 0 to 60°C operating temperature
SFP-1GLXLC-T	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to 85°C operating temperature
SFP-1GSXC	SFP module with 1 1000BaseSX port with LC connector for 300/550 m transmission, 0 to 60°C operating temperature

SFP-1GSXLC-T	SFP module with 1 1000BaseSX port with LC connector for 300/550 m transmission, -40 to 85°C operating temperature
SFP-1GZXLC	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, 0 to 60°C operating temperature
SFP-1GZXLC-T	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, -40 to 85°C operating temperature

© Moxa Inc. All rights reserved. Updated Jan 09, 2023.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.