

Model Name	10GBASE-SR SFP+ Module	Product Specification	401-59021-SG-SP02																												
Model No.	PN59021-SG		Page 1 of 2																												
<div>1. Summary</div> <div>10GBASE-SR SFP+ Module is SFP (Small-Factor Pluggable) module to be connected to a Panasonic Ethernet Switch's SFP+ extension slot.</div> <div>2. Rated/Environmental Conditions</div> <table><tr><td>2-1. Operating Voltage</td><td>DC 3.3V</td></tr><tr><td>2-2. Power consumption</td><td>1.0W max.</td></tr><tr><td>2-3. Operating environment</td><td>Temperature: 0 - 50℃ Humidity: 20 - 80%RH (no condensation)</td></tr><tr><td>2-4. Storage environment</td><td>Temperature: -20 - 70℃ Humidity: 10 - 90%RH ( no condensation )</td></tr><tr><td>2-5. Standards</td><td>IEEE802.3ae 10GBASE-SR SFF-8431 Specification for Enhanced Small Form Factor Pluggable Module SFP+ SFF-8472 Diagnostic Monitoring Interface Class 1 Laser Product (EN 62368-1, EN 62368-2) EN 62368-1</td></tr></table> <div>3. Form</div> <table><tr><td>3-1. External Dimensions</td><td>9mm (Height) × 15mm (Width) × 57mm (Depth) (Excluding protruding sections)</td></tr><tr><td>3-2. Mass (Weight)</td><td>17g</td></tr></table> <div>4. Hardware Specifications</div> <table><tr><td>4-1. Interface</td><td>Fiber port :LC connector (Duplex), 1port Transmitting and receiving network system: IEEE802.3ae 10GBASE-SR Transmission speed :10Gbps Compatible cable :Multi Mode Fiber cable 50/125 μ m, 62.5/125 μ m Maximum transmission distance :300m (50/125 μ m/2000MHz•km Fiber) 82m (50/125 μ m/500MHz•km Fiber) 66m (50/125 μ m/400MHz•km Fiber) 33m (62.5/125 μ m/200MHz•km Fiber) 260m (62.5/125 μ m/160MHz•km Fiber)</td></tr><tr><td>4-2. Optical wavelength</td><td>850nm</td></tr><tr><td>4-3. Output Optical Power</td><td>-7.1dBm min. - -1dBm max.</td></tr><tr><td>4-4. Optical Input Power minimum (Sensitivity)</td><td>-11.1dBm</td></tr><tr><td>4-5. Diagnostic Monitoring Interface</td><td>SFF-8472 Diagnostic Monitoring Interface for Optical Transceivers (DMI) Ethernet Switch that the device has been installed must have a DMI function too. * 1 Refer 6-1. Supported Products.</td></tr></table> <div>5. Accessories</div> <table><tr><td>5-1. Accessories</td><td>(1) Installation Guide :1 (2) Protection cap of the fiber optic port (Attached to the module) :1</td></tr></table> <div>6. Supported Products</div> <table><tr><td>6-1. Supported Products</td><td>Please use in Panasonic Ethernet Switches listed below. Supported Product Name Supported Product Number ZEQUO 6500 PN36242E-SG (*1 Supported DMI function) ZEQUO 6400 PN36240E-SG (*1 Supported DMI function)  For the latest information about supported product, check our website. *1 DMI: Diagnostic Monitoring Interface</td></tr></table>				2-1. Operating Voltage	DC 3.3V	2-2. Power consumption	1.0W max.	2-3. Operating environment	Temperature: 0 - 50℃ Humidity: 20 - 80%RH (no condensation)	2-4. Storage environment	Temperature: -20 - 70℃ Humidity: 10 - 90%RH ( no condensation )	2-5. Standards	IEEE802.3ae 10GBASE-SR SFF-8431 Specification for Enhanced Small Form Factor Pluggable Module SFP+ SFF-8472 Diagnostic Monitoring Interface Class 1 Laser Product (EN 62368-1, EN 62368-2) EN 62368-1	3-1. External Dimensions	9mm (Height) × 15mm (Width) × 57mm (Depth) (Excluding protruding sections)	3-2. Mass (Weight)	17g	4-1. Interface	Fiber port :LC connector (Duplex), 1port Transmitting and receiving network system: IEEE802.3ae 10GBASE-SR Transmission speed :10Gbps Compatible cable :Multi Mode Fiber cable 50/125 μ m, 62.5/125 μ m Maximum transmission distance :300m (50/125 μ m/2000MHz•km Fiber) 82m (50/125 μ m/500MHz•km Fiber) 66m (50/125 μ m/400MHz•km Fiber) 33m (62.5/125 μ m/200MHz•km Fiber) 260m (62.5/125 μ m/160MHz•km Fiber)	4-2. Optical wavelength	850nm	4-3. Output Optical Power	-7.1dBm min. - -1dBm max.	4-4. Optical Input Power minimum (Sensitivity)	-11.1dBm	4-5. Diagnostic Monitoring Interface	SFF-8472 Diagnostic Monitoring Interface for Optical Transceivers (DMI) Ethernet Switch that the device has been installed must have a DMI function too. * 1 Refer 6-1. Supported Products.	5-1. Accessories	(1) Installation Guide :1 (2) Protection cap of the fiber optic port (Attached to the module) :1	6-1. Supported Products	Please use in Panasonic Ethernet Switches listed below. Supported Product Name Supported Product Number ZEQUO 6500 PN36242E-SG (*1 Supported DMI function) ZEQUO 6400 PN36240E-SG (*1 Supported DMI function)  For the latest information about supported product, check our website. *1 DMI: Diagnostic Monitoring Interface
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<div>7. Prohibitions when Using the Product to Guarantee Safety</div> <div>The manufacturer assumes no responsibility for any problems occurring when the following conditions are not satisfied. Observe the following items when using the product.</div> <div><div><div>(1)</div><div>Do not look at the laser light. Deviation could lead to visual impairment. (Class 1 Laser Product)</div></div><div><div>(2)</div><div>Do not disassemble and/or modify this SFP+ Module. Deviation could lead to fire, electric shock, and/or equipment failure.</div></div><div><div>(3)</div><div>Handle the SFP+ Module carefully so that fibers or hands may not be injured by its end connected to the Ethernet Switch or the SFP+ extension slot of the Ethernet Switch.</div></div><div><div>(4)</div><div>Do not handle this SFP+ Module and connection cables during a thunderstorm. Deviation could lead to electric shock.</div></div><div><div>(5)</div><div>Do not put foreign objects (such as metal and combustible) into the opening (such as fiber port, case), and/or do not drop them into the inside of the SFP+ Module. Deviation could lead to fire, electric shock, and/or equipment failure.</div></div><div><div>(6)</div><div>Do not place this SFP+ Module in harsh environment (such as near water, high humid, and/or high dust). Deviation could lead to fire, electric shock, and/or equipment failure.</div></div><div><div>(7)</div><div>Do not place this SFP+ Module under direct sunlight and/or high temperature. Deviation could lead to high internal temperature and fire.</div></div><div><div>(8)</div><div>Do not install this SFP+ Module at the location with continuous vibration or strong shock, or at the unstable location. Deviation could lead to injury and/or equipment failure.</div></div><div><div>(9)</div><div>Do not connect any equipment other than compliance to fiber port. Deviation could lead to fire, electric shock, and/or equipment failure.</div></div><div><div>(10)</div><div>Do not put this SFP+ Module into fire. Deviation could lead to explosion and/or fire.</div></div></div> <div><div>8. Basic Instructions for the Use of This Product</div><div><div><div>(1)</div><div>For inspection and/or diagnosis, consult the retailer.</div></div><div><div>(2)</div><div>Correctly and securely connect the SFP+ Module to the SFP+ extension slot of a Panasonic Ethernet Switch.</div></div><div><div>(3)</div><div>Check the connector of the fiber optic cable for dirt and dust. If it is dirty, be sure to clean it before connecting it to the fiber optic port.</div></div><div><div>(4)</div><div>When removing this SFP+ Module from the SFP+ extension slot, unlatch the fiber optic cable and remove it from the SFP+ Module. Then pull down the lever of the SFP+ Module to the front, pull out the SFP+ Module in a state where its latch is released.</div></div><div><div>(5)</div><div>Remove the SFP+ Module from the SFP+ extension slot before cleaning the SFP+ Module.</div></div><div><div>(6)</div><div>Do not touch the metal terminal or place electrically-charged objects in the proximity of the SFP+ Module. Static electricity could lead to breakdown.</div></div><div><div>(7)</div><div>Please use the SFP+ Module in locations where the ambient temperature is from 0 to 50°C.</div></div><div><div>(8)</div><div>Do not use the SFP+ Module in any condition where the specification limits are exceeded. Deviation could lead to equipment failure.</div></div></div></div>			
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