# Content

Model Name	2
Key Features	
Specification	
Application	5
Application Mechanical Drawing	5
Packing List	6
Product Picture	
Bullet Points	8
FAQ	8
General Query	8
Product Ouery	
Ordering Information	
Order Procedure	14
Miscellaneous Fee	16
After-sales Support	
About Us	
How We Do Business	

Please click the bookmarks for easier reading Please pay attention to "remark" and "product query"

# Model Name

STI-222GP ST: Saga Telecom I: Industrial grade 2: 2 optical ports 2: 2 Ethernet ports 2: 2 PoE ports G: Gigabit based P: Support PoE

It is advised to read specific product description for more information



## **Key Features**

- 2\*10/100/1000Base-T RJ45 PoE port, 2\*100/1000Base-X SFP fiber port
- Redundant DC44-57V power input with polarity reverse protection
- Comply with IEEE802.3af PoE and IEEE802.3at PoE+ standard
- Powerful DIP switch function(on the top panel)
   1. Fiber redundant; 2. Fiber ports 100/1000M selection; 3. 250m long distance; 4. PoE watchdog
- Support 10K Bytes Jumbo frame
- Support 1M large buffer
- Support 4KV surge protection and ESD: Air-15KV, Contact-8KV protection
- IP40 fan-less and Din-rail design with compact size(85\*85\*30mm)
- Operation temperature:  $-40^{\circ}C \sim +75^{\circ}C$

With above features, it is an ideal solution for IP Surveillance, wind, electricity, assembly automation, subway PIS, power SCADA, sewage treatment, metallurgy, intelligent transportation, rail transportation, military and other industries

# Specification

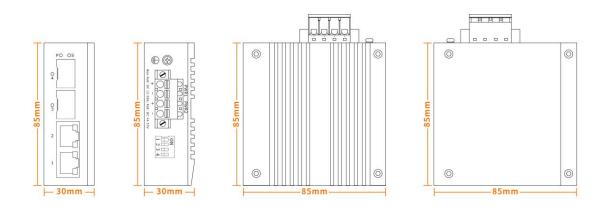
Product Name	4 Port 10/100/1000Mbps Industrial PoE Switch
Port	2*10/100/1000M PoE + 2 port 100/1000M Fiber
Network Medium	$10BASE-T: Cat3, 4, 5 \text{ or above UTP}(\leq 100 \text{ meters})$
	100BASE-TX: Cat5 or above UTP( $\leq 100$ meters)
	1000BASE-TX: Cat5 or above UTP( $\leq 100$ meters)
Network Protocol	IEEE 802.3 10Base-T Ethernet
	IEEE 802.3u Fast Ethernet
	IEEE 802.3ab Gigabit Ethernet
	IEEE 802.3x Full-Duplex Flow Control
	IEEE 802.3az Energy Efficient Ethernet
	IEEE 802.3af Power-Over-Ethernet
	IEEE 802.3at Power Over Ethernet plus PSE
Fiber Option	Hot Plug-able Module(LC), 100M or 1000M based
	DIP 2 on: 100/1000M auto-adaptive; DIP 2 off: 1000M
	SM: 1310nm/1550nm, 20Km; 1490nm/1550nm, 40~100Km
	MM: 1310nm, 2Km; 850nm, 500-meter
	Remark: 1*9 fixed module is NOT available on this model
Switching Capacity	8Gbps
Throughput	11.9Mpps
Packet Buffer	1M
MAC Address	8K
VLAN	4K
Jumbo Frame	10Kbytes
Transfer Mode	Store and forward, forwarding delay<5us
MDX/MIDX	Support
Watchdog	Support
Network Topology	Star topology
	Bus topology
	Tree Topology
MTBF	200,000 hours
PoE Protocol	IEEE802.3af(15.4W), IEEE802.3at(30W)
	Remark: auto-sensing PD standard and supply compatible power
PoE Distance	100-Meter or 250-meter(ONLY port 1, need to turn on DIP 3)
	Remark: A PoE extender is required for longer PoE transmission
PoE Wiring	1/2(+), 3/6(-)
PoE Budget	60W
	Max PoE output: 30W/port, 30W*2=60W
Input Voltage	DC44-57V, Redundant Input
	Removable 4 PIN Industrial Terminal Block
PoE Output	DC48V, Active PoE
	Remark: DC24V passive PoE is NOT supported
	A PoE splitter is required if the powered device receives DC24V voltage
Input Current	1.5A Max
Total Power Consumption	Full loading≤3W
Reverse Polarity Protection	Support

	<u>www.sagatetecom.com.cn</u>
Industry Standard	Surge protection of power: IEC 61000-4-5 Level 3(4KV/2KV)(8/20us)
	Surge protection of Ethernet ports: IEC 61000-4-5 Level 3(4KV/2KV)
	(10/700us)
	DIP: IEC 61000-4-11 Level 3(10V)
	ESD: IEC 61000-4-2 Level 4(8K/15K)
	Shock: IEC 60068-2-27
	Free fall: IEC 60068-2-32
	Vibration: IEC 60068-2-6
Protection Level	IP40
Installation	Din Rail or Wall Mounted(1pc mounting hanger is offered)
Certification	CE/FCC/RoHS/Reach/UKCA
Working Environment	Working Temperature: -40°C~75°C
	Storage Temperature: -40°C~85°C
	Relative Humidity: 5%~95%, non-condensing
DIP	1. Fiber redundant
	1. Fiber port 100/1000M selection
	2. 250m long distance mode
	3. PoE watchdog
LED Indicators	PWR(Power indicator), Green Color
	On: power status is normal
	Off: power off or power connection failure
	on power on or power connection failure
	S(PoE usage indicator), Red Color
	On: PoE usage $\ge 90\%$ rated budget
	Blinking: 50% <poe budget<="" rated="" td="" usage<90%=""></poe>
	Off: PoE usage<50% rated budget
	on. Tol: usage <50% failed budget
	Eth source Dane
	Ethernet Port
	1. Green Indicator
	On: port link up
	Off: port link down
	Blinking: data is in normal transmission
	2. Yellow Indicator
	PoE ports
	On: PoE working
	Off: PoE not working
	Fiber port, Green Color
	On: port link up
	Off: port link down
	Blinking: data is in normal transmission
	Dinking, Gata is in normal transmission

# Application

- Any network utilizing a mixture of copper and fiber
- IP connectivity and communication
- CCTV system such as network camera, access control

#### **Mechanical Drawing**



#### Remark Please contact us if the source file is needed

## **Packing List**

- 1pc switch
- 1pc wall hanger(shared holes with DIN Rail Kit)
- 1pc user manual(including QIG information)

Please know that there is NOT a warranty card in the packing box

A "Certificate of Warranty" will be issued to indicate the order information and warranty coverage



Shipping box information(Below information is approximately accurate)

Product size: 85\*85\*30mm Inner box size: 153\*125\*44mm Product weight: 0.3Kg Packing weight: 0.4Kg

Master box size: 385\*385\*325mm Packing quantity: 48Pcs Packing weight: 20Kg

Remark

Accessories(optical module, power supply, patchcord etc.)are NOT included in the packing box Please prepare it by yourself or purchase a whole set from us

# **Product Picture**



Remark Please let us know if you need to check actual photos(not PS-modified)

# **Bullet Points**

This helps you understand the unique features of our models and why choose us.

# 1. Expert Design

We borrow the case design idea from Moxa and Simens(to have beauty, professionalism and practicality in industrial design)

- (1) The upper panel, aluminum
- (2) The other sides, iron
- (3) The curves and textures



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This ensures beautiful outlook and good heat dissipation especially for PoE models

## 2. DIP Function

This offers useful and flexible configurations based on the same model

3. Push-in Terminal Block

This is much easier in installation than traditional screw-type terminal block



For many models on the market

- 1. The design is not so good
- 2. Without DIP function
- 3. Traditional screw-type terminal block

FAQ

# **General Query**

- Leadtime
- Production starts AFTER payment is received
- 1. Please know that it usually takes 1~2 working days for our bank to receive the payment
- 2. Production time is usually 4~7 working days for standard(non-customized)models(no more than 50Pcs)
- 3. Shipping time is usually 4~7 days by express
- In total, it takes 10~15 calendar days to arrive at local customs for clearance

This is an estimated period, it usually does not take this long to receive the order

- Shipment
- 1. We will send the goods by express(DHL, UPS or FEDEX)or by sea(for bulk orders)
- 2. It is fine to ship purchased items via client's shipping account(DHL, UPS or FEDEX) or forwarders in China
- MoQ
- 1. 1 Pc/Pair(It is NOT free, Saga Telecom do NOT do FREE SAMPLES)
- 2. It is fine to have sample testing before bulk orders

Please know that we do NOT suggest 1pc/pair in sample testing, better make it at least 2 pieces/pairs in case of any possible dysfunction in production/transportation(then all efforts are gone, a big waste of time)

- Warranty
- 1. 1 year for commercial models(STC series) and 3 years for industrial models(STI series)
- 2. Please kindly refer to the "Warranty Policy" for more information
- 3. Technical assistance is always available

# • Discount

Available and it is usually based on quantity and AFTER sample testing

- 1. The price negotiation makes sense ONLY IF a client is satisfied with the quality
- 2. For distributorship, that we are now seeking, best prices will be provided
- Payment
- 1. T/T transfer and PayPal
- 2. It is fine to pay 50% first and another 50% before shipment for a bulk order(this is about standard/non-customized models)
- 3. FULL PAYMENT for a customization order BEFORE PRODUCTION(non-negotiated)
- 4. It is fine to be paid via client's forwarder(this is usually about RMB payment on Alipay or WeChat)
- Transaction Cost
- 1. It is standard charge 25usd for EACH T/T transfer whatever the invoice value is
- 2. It is 5usd for every 100usd to PayPal a/c, this ratio is standard charge by PayPal
- User Manual

Please know that there is a user manual (with necessary information for usage and installation) in the packing box Actually most of the necessary information is available in this datasheet We can help print a copy of your version and put it in the packing box

- Packing Box
- 1. Without Chinese letters or logo
- 2. Hard carton, resilient to wrinkle, good for reselling even after shipment(there is protective foam inside to avoid possible damage)
- 3. Customized version is available(with your logo/model/slogan or remove the patterns), but there is MoQ and cost for this, discussion is required
- Label
- 1. There is product information/model name/serial number on the label
- It is fine to write client's version
- 2. Standard language is English

If a different language is adopted like Russian, Italian, Korean...

Please share EXACT translation, we will simply copy and print

- 3. Barcodes are scannable for inbound statistics
- 4. "Made in China" description is there and can be removed if required

5. An example photo will be shared for confirmation before mass printing for a bulk order

There are 2 copies for each manufactured product. One is attached on the device, the other is on the packing box

• Certification

CE/RoHS/FCC/Reach/UKCA

Please let us know if you need to check the certificates

## • RMA

#### Please contact us ASAP once there is a problem of ANY KIND

Please also read below "after-sales support" information to understand how to proceed

- 1. For every 100Pcs, there will be 2 extra free units(2% RMA)against immediate warranty coverage
- 2. This rule stands for all Saga Telecom models and even there is not an after-sales issue
- (1) If it is about missing/faulty parts in the packing box

Please simply use the extra units for the replacem

ent and let us know this problem(we will improve)

(2) If it is about usage problem

Saga Telecom will provide technical support and send new units when necessary(in this occasion, we will be responsible for both product cost and shipping cost, but the local customs clearance cost, if any, is on clients)

#### • SKD/CKD

Available

SKD is simple, please just let us know how you would like to have it

CKD usually involves confidential information such as BOM list, schematic design, PCB layout etc.

It is based on solid cooperation AND bulk orders, thorough discussion is required to do CKD mode

# • OEM

Available

Discussion is required for complex changes, meanwhile an NDA(Non-disclosure Agreement)contract will be agreed upon and signed

Relevant cooperation information will not be leaked to a third party without client's permission

It is mainly about 2 categories

- 1. Industrial manufacturing
- (1) Show client's logo/model on the device/label
- (2) Use client's packing box
- (3) Design client's product PVC sticker
- (4) Customize some parts of a model like rear panel/power input terminal block/panels...

Please know that there might be an extra cost for such OEM services

- 2. Management features
- (1) Show client's logo/model on the management interface
- (2) Change IP address
- (3) MAC address
- (4) SNMP, OID

Above changes are free of cost and please know that

Font format&GUI color are NOT changeable for the management interface

We can also help with develop exact features/specifications based on given chips or PCB board designs, this is more complex, thorough discussion is required

• Incoterms

EXW term is our focus

Sometimes we do FOB/CIF for bulk orders, this depends on cases, please talk with us for more information

- Online Store Currently we do not have an online store(Amazon, Shopify, Aliexpress etc.) We will add a store link in this datasheet when available
- Branch/Distribution

Currently we do not have ANY overseas branches or distributors We are actively seeking good agents/resellers to promote our brand and products Necessary technical and pricing support will be provided Please let us know if you are interested

# **Product Query**

• If possible to remove DIP function?

A: Most of our industrial unmanaged switches have DIP function, it is uniform. And this is an advantage over other switches on the market.

1. So NO for small quantities.

Just do not use it(ignore it)if relevant functions are not needed.

- 2. If it is about a bulk order, we can remove it for you(customization).
- Is it managed?

No, it is unmanaged.

We have many managed switches for your choice.

• What power supply should I use?

Please read below "ordering information" for our power supply models. Or it is fine to use a different brand, just make sure that the power input range stands in DC44V~DC57V.

• Can your switches work with other brand switches?

Yes, it is unmanaged and about the universal networking protocols, so there will not be incompliances.

• Can I just have a piece of PCB? I do not need the product case

Yes, we will pack the PCB board in an ESD bag, than locate it against the protective foam in the packing box. It is well protected from possible damage in transportation.

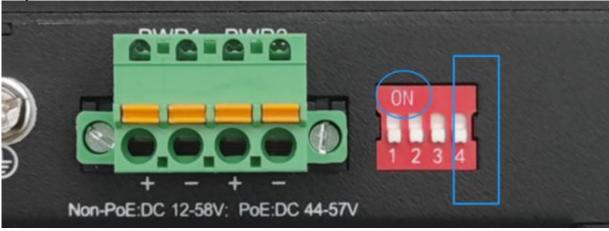
• What should I do if I temporarily do not need PoE function sometimes?

To realize this, please just use a DC12V or DC24V power supply, PoE function will not work then.

• Does the fiber port support 100M module?

Yes.

For SFP slot, it supports 100M or 1000M single-mode or multi-mode optical modules But you need to turn on/off DIP 4



ON=100M, OFF=1000M

# Remark

This model does NOT support 1\*9 fixed module

• I have a MEAN WELL NDR-120-12 power supply, its DC12V output. Is it possible to use it to make PoE work? NO

Our switches receive DC44V~DC57V to activate the PoE function, DC12V/DC24V input is not enough to make PoE work

We know that some suppliers are doing this type, DC12V/DC24V voltage input while active PoE output, there is a booster (another name is step-up) INSIDE

When DC12V/DC24V comes in, it will be boosted/converted to DC48V to make PoE chip work Currently we have a better solution for this occasion

We introduce an EXTERNAL power booster(model name STI-PA-120W-UP) which realizes exactly the same function, and it could be used to boost different devices, convenient and cost effective





# **Ordering Information**

Industrial PoE Switch(Unmanaged Series), DC44V~DC57V, Din Mounted		
Model	Description	
STI-054FP	1*10/100M RJ45+4*10/100 PoE, 120W budget	
STI-088FP	8*10/100 PoE, 240W budget	
STI-054GP	1*10/100/1000M RJ45+4*10/100/1000 PoE, 120W budget	
STI-088GP	8*10/100/1000 PoE, 240W budget	
STI-01616GP	16*10/100/1000 PoE, 240W budget	
STI-111FP	1*100M Fiber+1*10/100M PoE, 30W budget	
STI-122FP	1*100M Fiber+2*10/100M PoE, 60W budget	
STI-144FP	1*100M Fiber+4*10/100M PoE, 120W budget	
STI-188FP	1*100M Fiber+8*10/100M PoE, 240W budget	
STI-222FP	2*100M Fiber+2*10/100M PoE, 60W budget	
STI-244FP	2*100M Fiber+4*10/100M PoE, 120W budget	
STI-266FP	2*100M Fiber+6*10/100M PoE, 180W budget	
STI-111GP	1*100/1000M Fiber+1*10/100/1000M PoE, 30W budget	
STI-122GP	1*100/1000M Fiber+2*10/100/1000M PoE, 60W budget	
STI-222GP	2*100/1000M Fiber+2*10/100/1000M PoE, 60W budget	
STI-144GP	1*1000M Fiber+4*10/100/1000M PoE, 120W budget	
STI-154GP	1*1000M Fiber+1*10/100/1000M RJ45+4*10/100/1000M PoE, 120W budget	
STI-188GP	1*1000M Fiber+8*10/100/1000M PoE, 240W budget	
STI-244GP	2*1000M Fiber+4*10/100/1000M PoE, 120W budget	
STI-288GP	2*1000M Fiber+8*10/100/1000M PoE, 240W budget	
STI-21616GP	2*1000M Fiber+16*10/100/1000M PoE, 240W budget	
STI-488GP	4*1000M Fiber+8*10/100/1000M PoE, 240W budget	
STI-888GP	8*1000M Fiber+8*10/100/1000M PoE, 240W budget	

Industrial Din Power Adapter(-40°C~+75°C)		
STI-PA-75W-48V1.56A	90-264VAC Input, 48VDC Output, 1.56A, 75W, Metal Case, Din Mounted	
STI-PA-120W-48V2.5A	90-264VAC Input, 48VDC Output, 2.5A, 120W, Metal Case, Din Mounted	

Industrial Optical Module(-40°C~+75°C)		
STI-M0.5-MD	Megabit(100M), 0.5KM Multi-mode, Dual Fiber, 850nm, LC port	
STI-M2-MD	Megabit(100M), 2KM Multi-mode, Dual Fiber, 1310nm, LC port	
STI-M20-SD	Megabit(100M), 20KM Single-mode, Dual Fiber, 1310nm, LC port	
STI-M20-SST/R	Megabit(100M), 20KM Single-mode, Single Fiber, 1310nm/1550nm, LC port	
STI-G0.5-MD	Gigabit(1000M), 0.5KM Multi-mode, Dual Fiber, 850nm, LC port	
STI-G2-MD	Gigabit(1000M), 2KM Multi-mode, Dual Fiber, 1310nm, LC port	
STI-G20-SD	Gigabit(1000M), 20KM Single-mode, Dual Fiber, 1310nm, LC port	
STI-G20-SST/R	Gigabit(1000M), 20KM Single-mode, Single Fiber, 1310nm/1550nm, LC port	

Remarks

1. SFP Transceiver&Power Supply are NOT included in the packing box, need to purchase individually

2. Listed SFP transceiver and power supply are COMMONLY used for this device

Please talk with us for more specifications

## **Order Procedure**

- 1. Negotiation
- 2. Ordering
- 3. Payment
- 4. Shipment

## Negotiation

• Discuss specification, quantity, customized requirements... Move on to "Ordering" stage if every detail is finalized

• No agreement is achieved due to pricing, unavailable offer... Wait for next business opportunity

## Ordering

• Buyer sending PO This is not necessarily required

• Seller drafting PI

Required Contact information, pricing, quantity, shipping time etc. should be specified in this invoice

• Buyer checking Make payment if PI is approved Notify seller to revise the points in question

## Payment

• PayPal/Bank transfer ONLY

PayPal is usually for sample orders, 5Usd will be charged for EVERY 100Usd into our A/C Bank transfer is usually about repeat and bulk orders, standard charge in EACH order: 25Usd

• Buyer sending payment receipt Material preparation starts

• Seller receiving payment Production starts

## Shipping

• Dispatch ready

Photos and videos of ordered units are available Buyer confirmation(product label format, shipping marks...)is required to release out the order

- Shipping method
- 1. Via buyer's designated forwarder, this is usually about buyer's shipping agent, we will directly send purchased items to agent for further processing
- 2. Via Saga Telecom's shipping agent, we will quote based on total weight to buyer. It is usually air service by DHL/FedEx/UPS, cost will be included in PI after buyer approves
- 3. Via buyer's shipping A/C(DHL/FedEx/UPS)

• Shipping number

Seller should send shipping information to buyer once available

# **Miscellaneous Fee**

This covers most of small charges in an order

# • PVC mask

MoQ: 300Pcs, unit price: 1usd/pc
Examples are:
1. An order less than 300Pcs, lets say 50Pcs
50Pcs will be consumed and 250Pcs are left at the moment(Either ship them together with the purchased items or keep them in our warehouse for next orders)

2. An order over 300Pcs, lets say 350Pcs

Then we could order an exact amount 350Pcs for this order There will be none left





# Remark

It is neutral device(without logo)in a standard order

• COO(Certificate of Origin)

15usd/EACH copy

- 1. Client needs to go through the content, it is non-modifiable once confirmed
- 2. This has to be exercised AT LEAST 2 working days before shipment
- 3. Please let us know how we handle the copy(attach it on the outside or put it inside the box)
- Transaction Cost

As stated in General Query, it is standard charge in EACH order

Warranty comes in effect from the date of delivery

A "certificate of warranty" will be issued to indicate the coverage and relevant information

• If you have no idea how to install/configure/use the purchased devices, please contact us A detailed introduction will be shared

• If something is faulty in usage(especially managed models)

1, please describe what happened, examples as below

- (1) When this problem occurred
- (2) What you did to adjust it like restart the device or change new accessories
- (3) How you use this device like outdoor use for connecting some IP cameras

With this information, Saga telecom could quickly know what is going on and do trouble-shooting

## 2, please do your best to provide as many actual photos/videos as possible

Wrong connection or improper use may occur, photos and videos are helpful and efficient It is NOT suggested to discuss after-sales issues ONLY by text, we find it difficult to understand the situation and find out the root reasons

At the same time, we know that it might not be easy to get some photos/videos due to different reasons Please try your best(at least draw a sketch or something), this is the most efficient method based on our many aftersales cases

3, please prepare necessary accessories such as new SFP modules/other brand switches...

An example is, in a linear network connection, if one SFP module fails, the whole system might have a transmission problem

The solution would be as simple as replacing a new workable SFP module

With in-hand accessories, sometimes it is easy to fix the problem

4, please get ready for online meeting

If early tests and communication failed to identify the problem, an online meeting will be held to better discuss the after-sales issues(usually on Zoom or Microsoft Teams)

Saga telecom might remotely control your PC to do trouble-shooting with the help of Teamviewer/Anydesk

TeamViewer		- 🗆 X	♦ AnyDesk □ New Session □	- 0 ×
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	Free license (non-commercial use only) - Simon Ch	ang <u>Learn more</u>	Your Address 1 685 814 869 @ @ / mitte	
Remote Control	Allow Remote Control	Control Remote Computer	News Favorites Recent Sessions Discovered Invitations	88 88 🗉
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More Solutions NUM	Unattended Access	Join a Session Do you have a session code? <u>Enter code</u>	Reard Socions	Show all

Please do NOT wire or test the devices casually without our knowing, just follow our instructions and our engineers will do next moves based on the feedback.

For more information, please talk with us or visit www.sagatelecom.com.cn

Saga Telecom is a reliable manufacturer and trader of good-quality fiber optic devices and transmission solutions, and focuses on industrial networking, CCTV surveillance, fiber optic conversion and featured optical devices for industrial automation, vehicle network, security monitoring etc.

Backed by diversified product portfolio and mature business system, Saga Telecom gains good feedback overseas especially in USA, Turkey, Italy, Russia and India

Meantime, Saga Telecom is actively seeking trustworthy partners and enhancing its presence in optical telecommunication field

#### **Core Value**

Connecting, Converting, Creating Saga Telecom connects talents and ideas that may drive itself forward Saga Telecom converts mature business system to all-round growth Saga Telecom creates betterness from expertise and solution package

#### **Product Line**

Commercial Ethernet Industrial Networking Din Power Adapter Ethernet Media Converter PoE Accessory Optical Module Featured Optical Fiber Devices

A reliable networking solution supplier



- Simplified, Standard, Solution based
- All is about a s truly helpful solution

Saga Telecom proposes a buffet-style business communication

- 1. All the information is available without asking
- 2. Business details are being continuously updated
- 3. Value and growth manifest itself
- 1

A google link containing full information is created with access to everyone Anyone could read or download it anytime and anywhere

# People with access



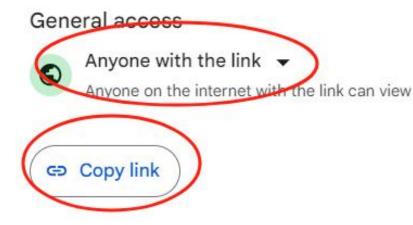
Simon (Saga Telecom) (you) s.sagatelecom@gmail.com

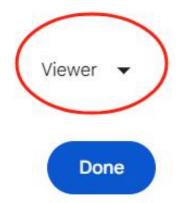


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Saga Telecom





# 2

We have been absorbing useful information and will update it in the link Like product query, application...

So latest information will be available all the time

# 3

- We are welcoming comparisons and suggestions from you
- Compare our products with existing or other suppliers
- Let us know where we could improve

Saga Telecom aims to be a marathoner in fiber optic telecommunication field

## A link to all the information

https://drive.google.com/drive/folders/10pI-PIGftC6UVEngjg\_cLlC8-X14fA9A?usp=drive\_link