



दूरसंचार विभाग, भारत सरकार

DEPARTMENT OF TELECOMMUNICATIONS, GOVERNMENT OF INDIA

दूरसंचार अभियांत्रिकी केंद्र

TELECOMMUNICATION ENGINEERING CENTRE

CERTIFICATE OF MANDATORY CONFORMANCE

This is to certify that the product described below conforms to the Essential Requirement issued by TEC under Mandatory Testing and Certification of Telecom Equipment as notified vide Indian Telegraph (Amendment) Rules, 2017.

i.	*Certificate No.: 147600390	ii.	Dated: 17-Dec-2024
iii.	Certificate Category: Provisional	iv.	Certificate Type: MODIFIED
v.	APPLICANT: Fibrsol Global Network Limited, 17, Deep Vihar, Vikas Nagar, Uttam Nagar, West Delhi, Delhi 110059	vi.	ORIGINAL EQUIPMENT MANUFACTURER: Fibrsol Global Network Limited, 17, Deep Vihar, Vikas Nagar, Uttam Nagar, West Delhi, Delhi 110059
vii.	PRODUCT NAME: PON Family of Broadband Equipment	viii.	PRODUCT VARIANT: PON OLT
ix.	PREVIOUS CERTIFICATE NO.: 147600390	x.	PREVIOUS CERTIFICATE ISSUED DATE: 2022-11-30
xi.	MODEL NO.: FS-16G-4X-GPON L3 DP	xii.	FAMILY NAME: NA
xiii.	ASSOCIATED MODEL NO.: As given at Table-1 overleaf	xiv.	INTERFACES TESTED: As given at Table-2 overleaf
xv.	SOFTWARE VERSION: V1.0.2R	xvi.	HARDWARE VERSION: V3.1.16
xvii.	VALID FROM: 17-Dec-2024	xviii.	VALID UPTO: 16-Dec-2026
xix.	ER NO.: TEC14762207	KHUSHBOO SHARMA Digitally signed by KHUSHBOO SHARMA Date: 2024.12.17 10:58:04 +05'30' DIRECTOR (TC-1) K L Bhawan, Janpath, New Delhi - 110001	
xx.	EMI / EMC CLASS: B		
xxi.	QR CODE: 		

Note:

- *1. This certificate is valid for product(s) manufactured in INDIA only, as per the details at Table-3.
2. This certificate is issued for model/family name indicated at (xi) above and applicable for associated/ family model(s) mentioned at Table-1, overleaf only.
3. Bill of Material covered under this certificate is given at Table-4.
4. Terms & Conditions mentioned at MTCTE portal (<https://www.mtcte.tec.gov.in/>) shall be applicable.

Table-1

List of Associated/Family Models	
i.	FS-8G-2X-GPON L3 DP
ii.	FS-4G-4X-GPON L3 DP
iii.	FS-4G-2X-GPON-L3 DP



Table-2

List of Interfaces Tested	
i.	1 G Optical Ethernet
ii.	10 G Optical Ethernet
iii.	GPON



Table-3

List of manufacturing locations (as declared by the applicant) for which this certificate (No. 147600390) is valid:								
S. No.	Product Model number	Contract Manufacturing	Manufacturing Location Address	Contact Person Name (Plant Incharge)	E-mail-ID	Contact number	*Country Of Origin	**Country of Manufacturing
1	FS-16G-4X-GPON L3 DP	Yes	SURBHI SATCOM PVT LTD D 23 SECTOR 11 NOIDA	Raju Pal	telco4@surbhiindia.com	9871647733	India	INDIA
2	FS-8G-2X-GPON L3 DP	Yes	SURBHI SATCOM PVT LTD D 23 SECTOR 11 NOIDA	Raju Pal	telco4@surbhiindia.com	9871647733	India	INDIA
3	FS-4G-4X-GPON L3 DP	Yes	SURBHI SATCOM PVT LTD D 23 SECTOR 11 NOIDA	Raju Pal	telco4@surbhiindia.com	9871647733	India	INDIA
4	FS-4G-2X-GPON-L3 DP	Yes	SURBHI SATCOM PVT LTD D 23 SECTOR 11 NOIDA	Raju Pal	telco4@surbhiindia.com	9871647733	India	INDIA

Note: *1. Country of Origin is as per the criteria defined under Custom Rules.

**2. Country of Manufacturing refers to the place where the Telecom product under certification against product model number given above is manufactured/assembled as complete unit only.

Table-4

Details of major modules / components (as declared by the applicant) of the model under certification (BILL OF MATERIAL)										
Module Name/Attribute Name	Module Code	Module Hardware Version	Module Software Version	Sub Unit Name	Sub Unit Model No.	Remarks	Module present in Main Model	Module present in Associated model-1	Module present in Associated model-2	Module present in Associated model-3
Module No.							FS-16G-4X-GPON L3 DP	FS-8G-2X-GPON L3 DP	FS-4G-4X-GPON L3 DP	FS-4G-2X-GPON-L3 DP
Classes of Equipemnt operating in-Class A		V3.1.16	V1.0.2R			Class A				
DC or AC Power supply - 12 Vdc, operated by AC-DC Power Adapter						AC:100240 V, 47/63Hz (Dual Power Supply AC+AC)	Y	Y	Y	Y
GPON Interface						FS-16G-4X-GPON-L3 DP - Total GPON Port=	Y	Y	Y	Y

Details of major modules / components (as declared by the applicant) of the model under certification (BILL OF MATERIAL)

Module Name/Atribute Name	Module Code	Module Hardware Version	Module Software Version	Sub Unit Name	Sub Unit Model No.	Remarks	Module present in Main Model	Module present in Associated model-1	Module present in Associated model-2	Module present in Associated model-3
						16Nos ,Total 1G Port=4Nos. (Uplink),Total 10G Port=4Nos. (Uplink) No of Interface/Port=1Nos.Switching Capacity Calculation 1)Down Link Ports:- 16GPON ports GPON Downstream Speed(Approx)=2.48Gbps				

Details of major modules / components (as declared by the applicant) of the model under certification (BILL OF MATERIAL)

Module Name/Attribute Name	Module Code	Module Hardware Version	Module Software Version	Sub Unit Name	Sub Unit Model No.	Remarks	Module present in Main Model	Module present in Associated model-1	Module present in Associated model-2	Module present in Associated model-3
						GPON Upstream Speed(Approx)=1.24Gbps Calculation :- $(2.48 \times 16 + 1.24 \times 16) = 40 + 20 \text{ Gbps}$ 2.Uplink Ports:- 1G=4Ports, 10G=4Ports Calculation :- $1 \text{ GE} \times 4 \text{ Ports} \times 2 (\text{Bidirectional}) = 8 \text{ Gbps}$ $10 \text{ GE} = 10 \text{ GE} \times 4 \text{ Ports} \times 2 (\text{Bidirectional}) = 80 \text{ Gbps}$				

Details of major modules / components (as declared by the applicant) of the model under certification (BILL OF MATERIAL)

Module Name/Attribute Name	Module Code	Module Hardware Version	Module Software Version	Sub Unit Name	Sub Unit Model No.	Remarks	Module present in Main Model	Module present in Associated model-1	Module present in Associated model-2	Module present in Associated model-3
						Total =8+80=88 Therefore Overall Switching Capacity is 60+88=148 Gbps FS-8G-2X- GEPON L3 DP - Total GPON Port=8Nos ,Total 10G Port=2Nos. (Uplink) No of Interface/Port=1Nos.				

Details of major modules / components (as declared by the applicant) of the model under certification (BILL OF MATERIAL)

Module Name/Atribute Name	Module Code	Module Hardware Version	Module Software Version	Sub Unit Name	Sub Unit Model No.	Remarks	Module present in Main Model	Module present in Associated model-1	Module present in Associated model-2	Module present in Associated model-3
						FS-4G-4X-GPON-L3 DP -Total GPON Port=4Nos Total 10G Port=4Nos.(Uplink) No of Interface/Port=1Nos. FS-4G-2X-GPON-L3 DP -Total GPON Port=4Nos Total 10G Port=2Nos.(Uplink) No of Interface/Port=1Nos.				

Details of major modules / components (as declared by the applicant) of the model under certification (BILL OF MATERIAL)

Module Name/Atribute Name	Module Code	Module Hardware Version	Module Software Version	Sub Unit Name	Sub Unit Model No.	Remarks	Module present in Main Model	Module present in Associated model-1	Module present in Associated model-2	Module present in Associated model-3
1G Optical						Total Port=4Nos	Y	Y	Y	Y
10G Optical						Total Port=4Nos	Y	Y	Y	Y
CPU: 1000MHz (BCM56150-Broadcom)						Same for all	Y	Y	Y	Y
1/10 Base T Ethernet Ports : 04 nos						Model-FS-16G-4X-GEPON-L3 DP Ethernet Port= 4 Model -FS-8G-2X-GEPON L3 DP,Ethernet Port= 2 Model-FS-4G-4X-GEPON-L3	Y	Y	Y	Y

Details of major modules / components (as declared by the applicant) of the model under certification (BILL OF MATERIAL)

Module Name/Attribute Name	Module Code	Module Hardware Version	Module Software Version	Sub Unit Name	Sub Unit Model No.	Remarks	Module present in Main Model	Module present in Associated model-1	Module present in Associated model-2	Module present in Associated model-3
						DP Ethernet Port= 4 Model-FS-4G-2X-GEAPON-L3 DP, Ethernet Port= 2				

*** End of the certificate***