

Model:GT-96600-7056-T3-AP

May 20, 2024

Level VI, DOE EPS 2.0/ErP2 compliant 70W Power over Ethernet (POE) Injector/ PoE HPOE+ PSE (Power Sourcing Equipment), Gigabit, Four Pair, Class I

Information

Model Number	GT-96600-7056-T3-AP
Description	GT-96600-7056-T3-AP, ICT/ITE Power Supply, Desktop/External, Non-IEEE 4PPoE, , Input Rating: 100-240V~, 50-60 Hz, IEC 60320/C14 AC Inlet Connector, Class I, Earth Ground, Output Rating: 70 Watts, Power rating with convection cooling (W) , 56V in 0.1V increments, Approvals: ETL; Patent US9838207B2; EAC; South Africa; UKCA; cETLus 60950-1; Morocco; South Africa; ETL 62368; CB 62368; CE; China RoHS; Class I; RoHS; Ukraine; VCCI; WEEE; Level VI; S-Mark 60950; CB 60950;
Model Picture	
Agency Documents	http://www.globtek.info/certs/GT-96600/
CE EC-Declaration	https://www.globtek.com/pdf/ec_declaration/a00a000000Mj0z4EAB
RoHS/RoHS2 Declaration	https://www.globtek.com/pdf/rohs_cert/a00a000000Mj0z4EAB
REACH Declaration	https://www.globtek.com/pdf/iso_certificates/REACH.pdf
Conflict Minerals Declaration	https://www.globtek.com/pdf/conflict-minerals.pdf

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MODEL PARAMETERS

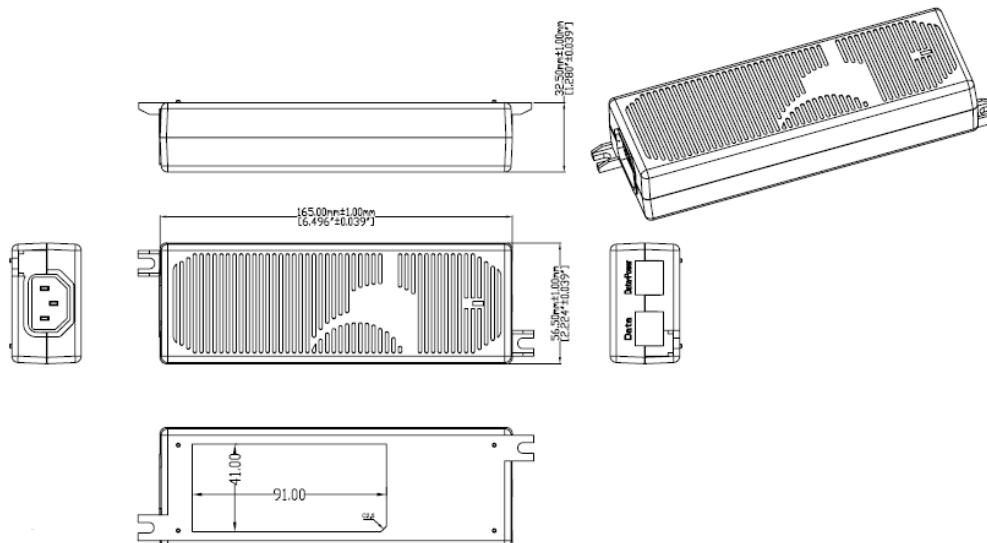
Type	Desktop/External
Technology	Non-IEEE 4PPoE
Category	ICT/ITE Power Supply
Input Voltage	100-240V~, 50-60 Hz
I/P Amps (A)	2.0A
Wattage (W)	70.0
Vout Range (V)	56
Efficiency Level	USA DOE Level VI / Eco-design Directive 2009/125/EC, (EU) 2019/1782
Ingress Protection	
Size (mm)	165*32.5*56.5 mm

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ENCLOSURE



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70W PoE Injector, Ethernet InterOperability and Compatibility Testing

Injector tested: *Model GT-96600-7056*, rated 70W output, 56Vdc, IEEE802.3-2012 Compliant

Note, assuming 80% eff splitter, max Pout = 56W (56/70 = 0.8)

Splitter Model	Splitter Description	P/F	Notes:
Globtek GT-91087	5V, af Type	P	Low power type, tested at 7.5W load
PowerDSIne PD-AS-601/5	5V, af Type	P	
Linksys POEES5	5V, af Type	P	
Axis 5008-001-02	5V, af Type	P	
PowerDSIne PD-AS-701/12	12V, af type	P	24W rating, tested at 24W load
Phihong POE21-120-R	12V, at type	P	21W rating, tested at 21W load
PowerDSIne PD-AS-951/12-24	12V, DLL Classification	P	4 Pair, 54W rating, tested at 48W load
Phihong POE45-120-R	12V, 12.5K Classification	P	4 Pair, 45W rating, tested at 40W load
Hi-Power PS-1206G	12V, MSC201 Classifica.	P	4 Pair, 51W rating, tested at 48W load

100BaseT/1000 Base T network digital transmission testing

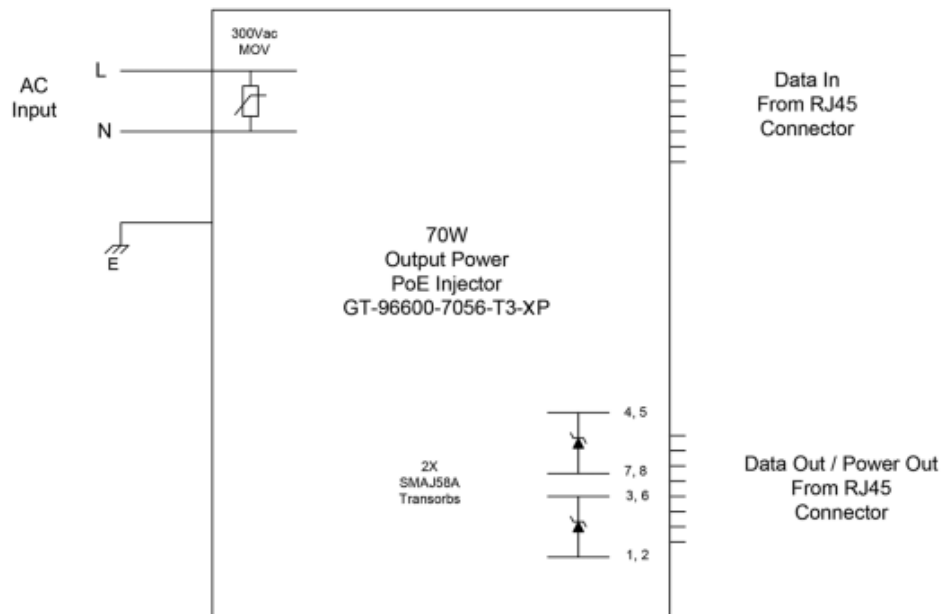
(During testing ethernet communications is passed thru Injector and then Splitter and then to a computer)

Injector tested: *Model GT-96600-7056*, rated 70W output, 56Vdc, IEEE802.3-2012 Compliant

Injector is Gigabit designed and tested, to 100 Base T and 1000 Base T

Splitter Model	Splitter Description	P/F	Notes:
Axis 5008-001-02	100 Base T rating	P	Limited bandwidth splitter
PowerDSIne PD-AS-701/12	1000 Base T rating	P	Full bandwidth splitter

Diagram of the lightning protection:



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RATING TABLE

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GT-96600-7056-T3-AP	56 V	1.25	70.00	RFQ

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SPECIFICATIONS

Overview

GlobTek's GT-96600-7056-AP Power over Ethernet (PoE) injector offers a cost effective and reliable solution for remote powering of wireless LAN access points, IoT sensor hubs, VoIP phones, security cameras and other IP terminals using existing network infrastructure. GlobTek GT-96600-7056-AP injector is configured to provide 70W of power over four pairs using a "Non-IEEE 4PPoE" implementation. When a load is connected, GT-96600-7056-AP immediately applies 56V to all four pairs.

Features

- Easy, low-cost system implementation without IEEE802.3af/at/bt identification or classification
- 10/100/1000Base-T (Gigabit) pass-through
- Dual independent current limiters ensure safe (balanced) current on each set of wire pairs
- Intelligent fault diagnostics via LED indicator
- IEEE802.3 compliant input/output lightning surge and output fault protection
- Compact 164 x 55 x 35mm size

Applications

- High power PoE equipment
- IoT sensor hubs
- VoIP phones with video
- WiFi, Bluetooth, and multi-band access points
- Networked security camera with motorized pan, tilt, and zoom
- Point-of-sale terminals/magnetic card readers
- Industrial/HVAC controllers
- Electronic time clocks
- Digital signage/lighting
- RFID readers
- Motion sensors

Input

Input Voltage:	Specified: 90-264VAC (85-264V rating @ 85% rated output power) Nameplate: 100-240VAC
Input Frequency:	Specified: 47-63Hz, Nameplate: 50-60Hz
Input Current:	<2A @ 90VAC (full load)
No Load Input Power:	<210mW, DoE Efficiency Level VI (Patent US9838207B2)
Inrush Current:	<30A @ 230VAC (cold start @ 25°C)
Efficiency:	>88% @ 115VAC, DoE Efficiency Level VI (4-point average)

Output

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Output Voltage:	56VDC nom. (54VDC min., 57VDC max.)
Ripple:	100mV max. (peak-to-peak)
Turn-on Delay:	1 second typ. @ 115VAC
Hold-up Time:	8ms typ. @ nominal input voltage and full load
Output Current:	1.24A total, 620mA max. per pair-set
Power Injection Method:	"Non-IEEE 4PPoE"
IEEE802.3 Detection/ Classification:	No/No
Pair-Set 1:	+V: Pins 4,5 - V: Pins 7,8
Pair-Set 2:	+V: Pins 3,6 - V: Pins 1,2
Note 1:	Please note polarity reversal of pair-set 2 compared to typical IEEE802.3 implementation. A compliant IEEE802.3 compliant PD equipment will handle opposite polarity via diode bridge.
Minimum Holding Current:	10mA per pair-set, pulsating output (between 0-56V) if condition not met
Ethernet Pass-Through:	10/100/1000Base-T
LED Indicator:	Off: No output voltage, check AC input power Continuous: Power good (> 10mA on pair-set 1) Flashing @ 1.5Hz: Minimum holding current not met (< 10mA on pair-set 1) Flashing @ 10Hz: Fault condition, over-current or over-voltage

Protections

AC Input Protection:	MOV transient suppressor (10mm diameter) Input line fusing
Output Port Protection:	2X SMAJ58CA, one per pair-set, per IEEE802.3
Overload/Short-Circuit Protection:	Dual independent current monitors, one per pair-set, auto-recovery upon removal of overload condition, per IEEE802.3

Environmental

MTBF:	1,500,000 hours @ 25°C ambient, full load (Telcordia SR-332, Issue 3)
Operating Temperature:	-20°C to 40°C (full output power)
Storage Temperature:	-30°C to 80°C
Humidity:	0% to 95% relative humidity, non-condensing
Altitude:	5000m max.

Safety

Dielectric Withstand Voltage:	3000VAC
Leakage Current:	<100µA
Primary-Secondary Insulation System:	Double/reinforced

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EMC

Applicable Standards:	Emissions: EN55032, IEC61000-3-2, IEC61000-3-3 Immunity: EN55024
Conducted Emissions:	EN55032, Class B (with resistive load)
Radiated Emissions:	EN55032, Class B (with resistive load)
Harmonic Current Voltage Distortion:	EN61000-3-2, Class A
Voltage Fluctuations/Flicker:	EN61000-3-3
Electrostatic Discharge (ESD) Immunity:	EN61000-4-2, 4KV contact discharge, 8KV air discharge (applied to input/output terminals & VCP/HCP)
Radiated RF Immunity:	EN61000-4-3, 3V/m 80-1000MHz, 80% 1KHz AM
EFT/Burst Immunity:	EN61000-4-4, 1KV/100kHz.
Line Surge Immunity:	EN61000-4-5, 1KV differential, 2KV common-mode
Conducted RF Immunity:	EN61000-4-6, 3VRMS, 80% 1KHz AM
Voltage Dip Immunity:	EN61000-4-11

Mechanical

Dimensions:	164 x 55 x 35mm
Weight/Mass:	0.59lb, 264g
AC Input Connector:	IEC60320 inlet: C14, C8, C6, or C18 style
Data and Data + Power Connectors:	Fully shielded RJ45

Special Options

- Custom labels/markings
- Reduced output power rating
- Special housing colors

PoE Interoperability

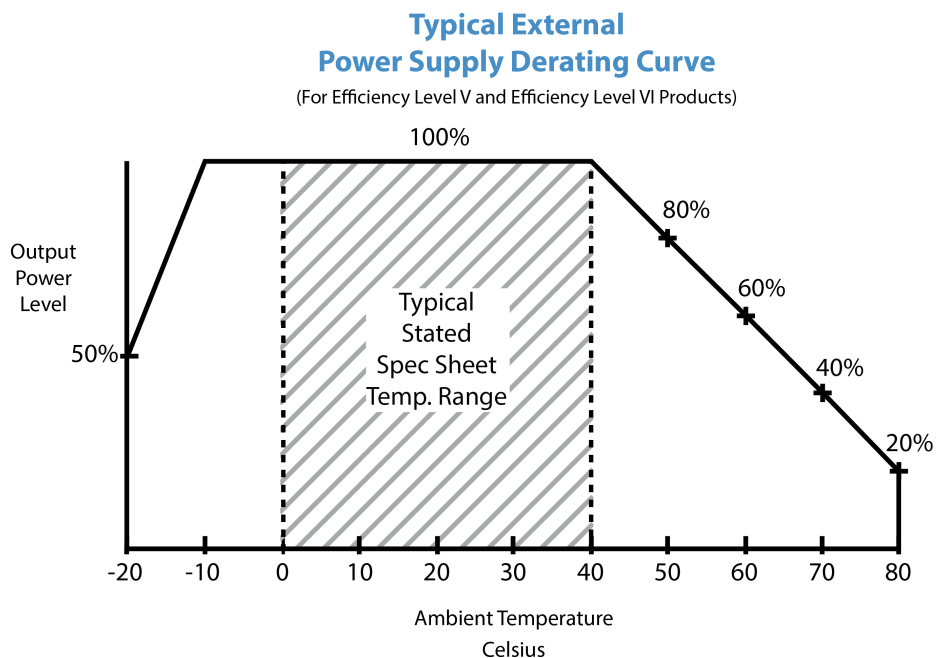
- GT-96600-7056's interoperability performance was verified with various third party PoE systems and products. Digital data pass-through performance was also verified. Please see below tables.

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DERATING CURVE

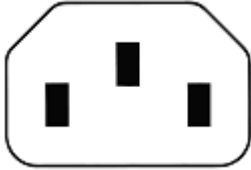


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INPUT CONFIGURATION

Description IEC 60320/C14 AC Inlet Connector, Class I, Earth Ground



Mates with IEC 60320/C13 Plug

Optional Locking IEC60320 Receptacle and cord option available on some models by request.:



[Standard International IEC 320/C13 Cordsets](#)

Below are standard cordsets which are "not included" (unless stated above); these can be purchased separately or packaged with the power supply. Contact your Sales Engineer if the style required is not shown below. Many more available in different lengths, colors or cable material.

Stock Power Supply Cords

Part Number/ Link	Country	Plug	Termination	Length (mm)	(Ft)
3021457F701(R)	N. American (Type B)	NEMA 5-15P	IEC 320/C13	2150	7
1191068F0701(R)	N. American (Type B)	NEMA 5-15P Hospital	IEC 320/C13	2459	8
2194272M5701-T(R)	Argentina (Type I)	IRAM 2073	IEC 320/C13	2500	8
5502022M5701A(R)	Australian (Type I)	AS3112 / 3 PRONG	IEC 320/C13	2500	8
204B4272M5701(R)	Brazil (Type N)	BRAZIL	IEC 320/C13	2500	8
6023602M5701(R)	China (Type I)	CCC GR2099	IEC 320/C13	2500	8
G8014272M5701(R)	Danish (Type K)	AFSNIT SECTION 107-2-D1	IEC 320/C13	2500	8
			IEC		

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23144272M5701-T(R)	Europe (Type E)	CEE 7/7	320/C13	2500	8
23134272M5701EUKR(R)	Europe/Korea Combo (Type E)	CEE 7/7 / KSC8305	IEC 320/C13	2500	8
205IN4272M5701(R)	India (Type D)	India IS 1293 (also known as IA16A3 or BS546)	IEC 320/C13	2500	8
208IN4272M5701(R)	India (Type M)	India IS 1293 (also known as IA16A3 or BS546)	IEC 320/C13	2500	8
377C4272M5701(R)	Israel (Type H)	ISL 377C	IEC 320/C13	2500	8
23024272M5701(R)	Italy (Type L)	CEI 23-16/VII	IEC 320/C13	2500	8
3003339F701(R) [3x1.25mm2]	Japan (Type B)	JIS 8303 / 3 PINS	IEC 320/C13	2500	8
3003068F2701-HK(R) [3 x 2.0mm2]					
302J115J6F0701J(R)	North America / Japan (Type B – 12A)	NEMA 5-15P (cULus approved), Japan JIS C 8303 (PSE Approved)	IEC 320/C13	1830	6
302J104J6F0701J(R)	North America / Japan (Type B – 15A)	NEMA 5-15P (cULus approved), Japan JIS C 8303 (PSE Approved)	IEC 320/C13	1830	6
302JT104J9F0701JT(R)	North America / Japan / Taiwan (Type B – 15A)	NEMA 5-15P (cULus approved), Japan JIS C 8303 (PSE Approved), Taiwan CNS 6797 (BSMI Approved)	IEC 320/C13	2800	9
2313K3432M5701(R)	Korea (Type F)	KS C 8305	IEC 320/C13	2500	8
5804272M5701(R)	Russia (Type F)	GOST 7396	IEC 320/C13	2500	8
2084272M5701(R)	South Africa (Type M)	South Africa SABS164-1 (16A type)	IEC 320/C13	2500	8
23214272M5701(R)	Switzerland (Type J)	SEV 1011	IEC 320/C13	2500	8
3003322M5701(R)	Taiwan (Type B)	BSMI	IEC 320/C13	2500	8
6363762M5701(R)	Thailand (Type O)	TIS 166-2549	IEC 320/C13	2500	8
PZ0800100-2M5BK13H(R)	UK, Hong Kong, Singapore, Gulf States (Type G)	BS 1363A	IEC 320/C13	2500	8
7055002M5701A(R)	International	IEC 320 C14-C13	IEC 320/C13	2500	8

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OUTPUT CONFIGURATION

Common output connector options:



L Type (Coaxial
5.5x2.5mm plug)



C Type (Coaxial
5.5x2.1mm plug)



K Type (Coaxial
3.5x1.3mm plug)



LL Type (5.5x2.5mm
Locking 760k type)



CL Type (5.5x2.1mm
Locking S761k type)



ML2 Type (Molex
housing 43025-0200)



YL3 Type
(KPPX-3P)



YL4 Type (KPPX-4P)



EJ1/2/3/4/5 (EIAJ
RC-5320A type
connectors)



MSB Type (Micro
USB)



USBC Type (USB
Type C)



Inquire for custom
design

For a comprehensive list of options, [click here](#)

Contact GlobTek for your specific requirements or custom solutions.

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Approvals

Logo	Description
No Logo Applicable	CB for IEC 60950-1:2005+A1+A2
No Logo Applicable	CB for IEC 62368-1:2014 (Second Edition)
	CE Certification
	Audio/Video, Information And Communication Technology Equipment - Part 1: Safety Requirements [UL 62368-1:2014 Ed.2] Audio/Video, Information And Communication Technology Equipment - Part 1: Safety Requirements [CSA C22.2#62368-1:2014 Ed.2]
	CHINA SJ/T 11364-2014, China RoHS Chart: http://www.globtek.com/pdf/F-GT-DJD-8.4.1-006%20China%20RoHS%20Declaration%205-20-22.pdf
Conforms to UL STD. 60950-1 Certified to CSA STD C22.2 NO.60950-1	Conforms to UL STD. 60950-1 Certified to CSA STD C22.2 NO.60950-1
	Declaration ДС № EAЭС N RU Д-US.KA01.B.10453_19 Custom Union of Russia, Belarus and Kazakhstan http://www.globtek.com/redirect/?loc=gost-certificate-eac-declaration
	Information Technology Equipment Safety Part 1: General Requirements >Valid without technical revision:01Jan2022< [UL 60950-1:2007 Ed.2 +R:14Oct2014
EFFICIENCY LEVEL 	Efficiency: complies to section 301 of Energy Independence and Security Act (EISA) complies with Energy Star tier 2 (North America), ECP tier 2 (China), MEPS tier 2 (Australia), Code of Conduct (Europe)

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	Morocco SDoC declaration http://www.globtek.info/certs/Morocco%20SDoC%20Declaration/
Patent US9838207B2	Protected by US and international patents, US patent number US9838207B2
RoHS	Specifications of directive 2011/65/EU Annex VI (ROHS-2) with amendment 2015/863-EU (ROHS-3) http://www.ce-mark.com/Rohs%20final.pdf
	S-Mark Certificate EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011+A2:2013 (http://www.intertek.com/marks/s/)
No Logo	12
No Logo	South Africa approval to SANS IEC 60950
	UKCA Certification
	Ukraine UKRSepro (Document: www.globtek.com/html/iso_certificates/GT_Ukraine.pdf)
	Japan: Voluntary Control Council for Interference (VCCI)
	WEEE: Complies with EU 2012/19/EU (http://ec.europa.eu/environment/waste/weee/index_en.htm) Mark is on the label or Molded in the case