

Delivering leading edge, innovative power solutions for more than 30 years....

Model:GTM96181-WWPD-T3

January 22, 2022

USB Adaptive Power Delivery (PD), 36W, Desktop Class I with 3 Prong IEC60320 c14 inlet, USB Type C connector

Information

Model Number	GTM96181-WWPD-T3
Description	GTM96181-WWPD-T3, USB Adaptive Power Source ICT/ITE/Medical Power supply, Desktop/External, USB Adaptive Power Supply AC Adaptor, , Input Rating: 100-240V~, 50-60 Hz, IEC 60320/C14 AC Inlet Connector, Class I, Earth Ground, Output Rating: 36 Watts, Power rating with convection cooling (W) , 3.6-20V in 0.1V increments, Approvals:

Model Picture



Agency Documents

CE EC-Declaration	https://www.globtek.com/pdf/ec_declaration/a003a00000M3yuUEAR
RoHS/RoHS2 Declaration	https://www.globtek.com/pdf/rohs_cert/a003a00000M3yuUEAR
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

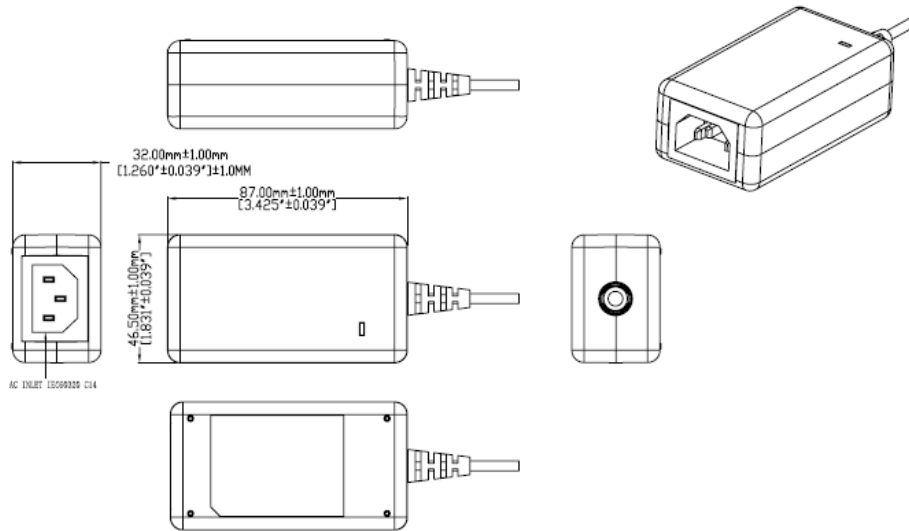
Type	Desktop/External
Technology	USB Adaptive Power Supply AC Adaptor
Category	USB Adaptive Power Source ICT/ITE/Medical Power supply
Input Voltage	100-240V~, 50-60 Hz
I/P Amps (A)	1.2A
Wattage (W)	36.0
Vout Range (V)	3.6-20
Efficiency Level	USA DOE Level VI / Eco-design Directive 2009/125/EC, (EU) 2019/1782
Ingress Protection	IP42
Size (mm)	(L)87x(W)47x(H)32mm

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ENCLOSURE



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RATING TABLE

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GTM96181-36PD-T3	V			RFQ
GTM96181-18PD-T3	V			RFQ
GTM96181-18PD-PPS-T3	V			RFQ
GTM96181-36PD-PPS-T3	V			RFQ

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SPECIFICATIONS

USB Power Delivery Capabilities

Protocol supported:	USB Power Delivery (PD) 2.0/3.0 + PPS
Advertised Power Data Objects (PDOs/APDOs):	Standard option: 5V, 5.8V, 9V, 12V, 15V, 15.1V, 20V PPS option (18W): 5V, 9V, 12V, 15V, 15.1V, 20V, PPS (5-21V) PPS option (36W): 5V, 9V, 15V, 20V, PPS (5-11V), PPS (5-16V), PPS (5-21V)
Note 1:	Custom fixed PDOs available upon request. PDO1 must be 5V. PDO2 through PDO7 may be set to any custom voltage from 5V to 20V, with a step size of 100mV.
Note 2:	In critical applications, the use of a non-authorized USB PD power supply may pose a substantial risk. Power supply authorization may be implemented using USB PD Vendor Defined Messages (VDMs) to prevent system operation with non-authorized power sources. Please see our article Product Security and Risk Mitigation for USB Power Delivery (PD) Based Systems for additional information.

Input

Input Voltage:	Specified: 90-264VAC, Nameplate: 100-240VAC 100% rated load current for 90-264VAC 85% rated load current for 85-264VAC 100% rated load current for 110-370VDC
Input Frequency:	Specified: 47-63Hz, Nameplate: 50-60Hz
No Load Input Power:	< 75mW @ 230VAC (EU CoC Tier 2 compliant)
Inrush Current:	< 30A @ 115VAC, < 60A @ 230VAC (cold start)
Efficiency:	DoE Efficiency Level VI and CoC Tier 2 compliant (tested according to DoE 10 CFR Part 430, Subpart B, Appendix Z)

Output

Turn-on Delay:	< 1 second @ 115VAC and full load
Output Regulation	± 4% max. (measured at the end of a 1m long output cord)
Line Regulation:	± 0.5% typ. (measured at the end of a 1m long output cord)
Ripple:	100mV max. (using a 47µF low-ESR electrolytic cap + 0.1µF ceramic cap, measured @ 20MHz BW, at the output connector)
Transient Response:	5% max. deviation, 1ms max. recovery time (with 25% load step),
Hold-up Time:	8ms min. (100VAC and full load)
Power Indicator:	Green LED

Protections

Input Protection:	MOV transient suppressor, input line fusing
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Over-Voltage Protection:	Level 1: 110-130%, Auto-recovery, adaptive to selected PDO Level 2: 24-28V, Latched off, cycle AC to reset
Over-Current Protection:	110-130%, Auto-recovery, adaptive to selected PDO
Short-Circuit Protection:	Auto-recovery
Over-Temperature Protection:	Auto-recovery

Environmental

MTBF:	1,500,000 hours @ 25°C ambient, full load (Telcordia SR-332, Issue 3)
Operating Temperature:	-10°C to 40°C (full load)
Storage Temperature:	-40°C to 80°C
Humidity:	0% to 95% relative humidity, non-condensing
Altitude	5000m
Cooling:	Convection
RoHS:	Complies with EU 2011/65/EU and China SJ/T 11363-2006

Safety

Dielectric Withstand Voltage:	4000VAC or 5656VDC from input to output 10mA, 1 minute
Touch Current:	NC: 80µA max. SFC: 400µA max.
Earth Leakage Current	300µA max. NC/SFC (N/A for 2-conductor input models)
Means of Protection:	2 x MOPP
Output Isolation Options:	-Q suffix: Class II 2-conductor (interchangeable blades) -T2 suffix: Class II 2-conductor -T3 suffix: Class II, with functional earth (FE) Class I, earth wire connected directly to output negative
Note 3:	Review output isolation options with our article: PSU Isolation and Identify

EMC

Applicable Standards:	Medical: EN 60601-1-2 (4e) Emissions: EN55032, EN61000-6-3, EN61000-6-4 Immunity: EN55024, EN61000-6-1 (4e), EN61000-6-2 (4e)
Conducted Emissions:	Class B, FCC Part 15, Class B (with resistive load)
Radiated Emissions:	Class B, FCC Part 15, 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, 10KV contact discharge, 18KV air discharge, Criterion A
Radiated RF Immunity:	EN61000-4-3, 10V/m @ 80-1000MHz, 3V/m @ 1-2.7GHz, 80% 1KHz AM, Criterion A
EFT/Burst Immunity:	EN61000-4-4, 4KV/100KHz., Criterion A
Line Surge Immunity:	EN61000-4-5, 2KV differential, 4KV common-mode, Criterion A

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Conducted RF Immunity:	EN61000-4-6, 10VRMS, 80% 1KHz AM, Criterion A
Voltage Dip Immunity:	EN61000-4-11, Criterion B/C
Note 4:	When a Class II power supply is connected to an earth-referenced system, conducted/radiated EMI levels tend to increase since the distant earth connection creates a long return path for common-mode EMI currents. This model includes an output common-mode choke to help alleviate system-level EMI issues. This choke can be removed for cost-sensitive applications.

Enclosure

Housing:	High impact plastic, 94V0 polycarbonate, non-vented
Markings:	Adhesive backed label or laser engraving

Security

USB Power Delivery:	Two non-standard voltage profiles are included: 5.8V and 15.1V. System designers may use these non-standard profiles to reduce the likelihood of system operation with non-GlobTek power supplies. 12.0V is also not standard, but is often included in other power supplies. The power supply will respond to a USB PD "Discover Identity" VDM with 0x4754 in the "ProductID" field. USB PD host systems may check this value before initiating/allowing power negotiation.
Note 5:	These measures do not guarantee a secure implementation, and are only suggested as a method of risk mitigation.
Note 6:	Please see our article Product Security and Risk Mitigation for USB Power Delivery (PD) Based Systems for additional information.

Special Options

Non-standard - Contact GlobTek

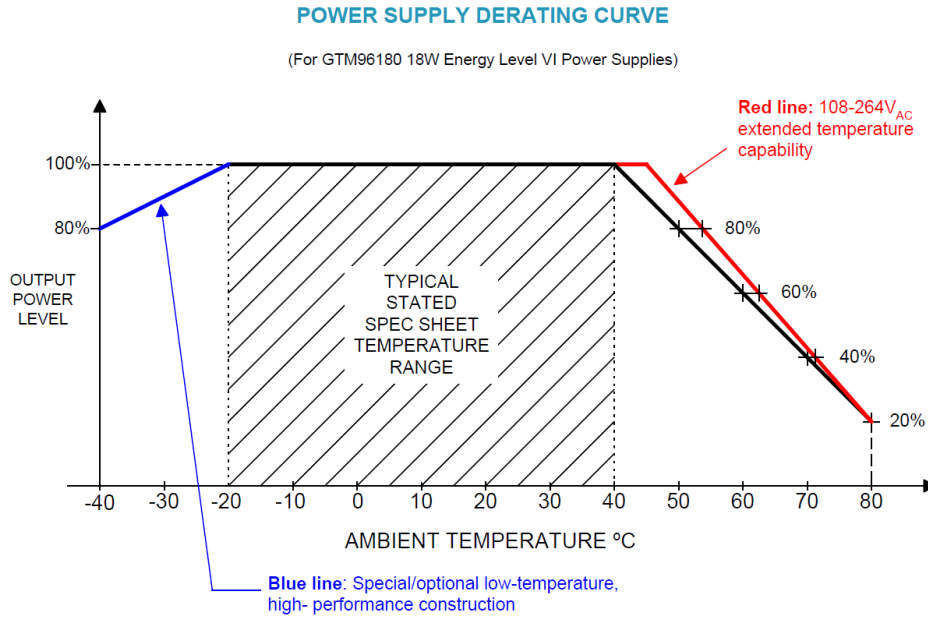
1. Custom housing and output cord colors
2. Custom fixed output cord length, for applicable models (1m, 2m, 3m lengths)
3. Custom markings and marking methods
4. Custom USB PD PDOs: Output voltages selectable between 5V and 20V, in 100mV increments

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DERATING CURVE



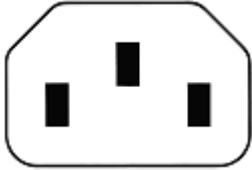
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INPUT CONFIGURATION

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)	Length (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
23144272M5701-T(R)	Europe (Type E)	CEE 7/7	IEC 320/C13	2500	8
23134272M5701EUKR(R)	Europe/Korea Combo (Type E)	CEE 7/7 / KSC8305	IEC 320/C13	2500	8

PROPRIETARY INFORMATION

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<https://www.globtek.com/datasheet/w70613>

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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)	IEC320/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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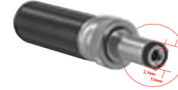
OUTPUT CONFIGURATION

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
	Morocco SDoC declaration http://www.globtek.info/certs/Morocco%20SDoC%20Declaration/
	UKCA Certification