



## Quick Reference Guide Gemini Series Switches

The TE Connectivity extensive Gemini A and Gemini AE Series offer one and two poles with multi-circuit configurations, including: momentary function, locking toggle to avoid unwanted switching as well as bat and flat toggles in different lengths. The Gemini AE Series meets IP67 requirements. Terminals are epoxy sealed to prevent the entry of flux, solvent and other contaminants. Gemini A & Gemini AE Switches are available with solder lug, PC, wire wrap, vertical, bracketed and angle-mount PC terminal choices.

The Gemini series offers engineers many different combinations of toggle or rocker switches for their applications.

### FEATURES

#### Toggles

- Gold, gold over silver or silver contacts
- Epoxy sealed terminals
- Stainless steel frame with brass tin plated solder support
- Hardware included
- Boot seals available
- AE meets IP67 requirements

#### Rockers

- Multiple actuator colors available
- G and Q contacts UL recognition
- AE meets IP67 requirements

### APPLICATIONS

These devices are well suited for designs requiring human interface via toggle or rocker-style switch, including:

- Industrial equipment
- Audio-visual equipment
- Outdoor concert and lighting equipment
- Medical
- Instrumentation
- Communication equipment

**Typical Performance Characteristics**

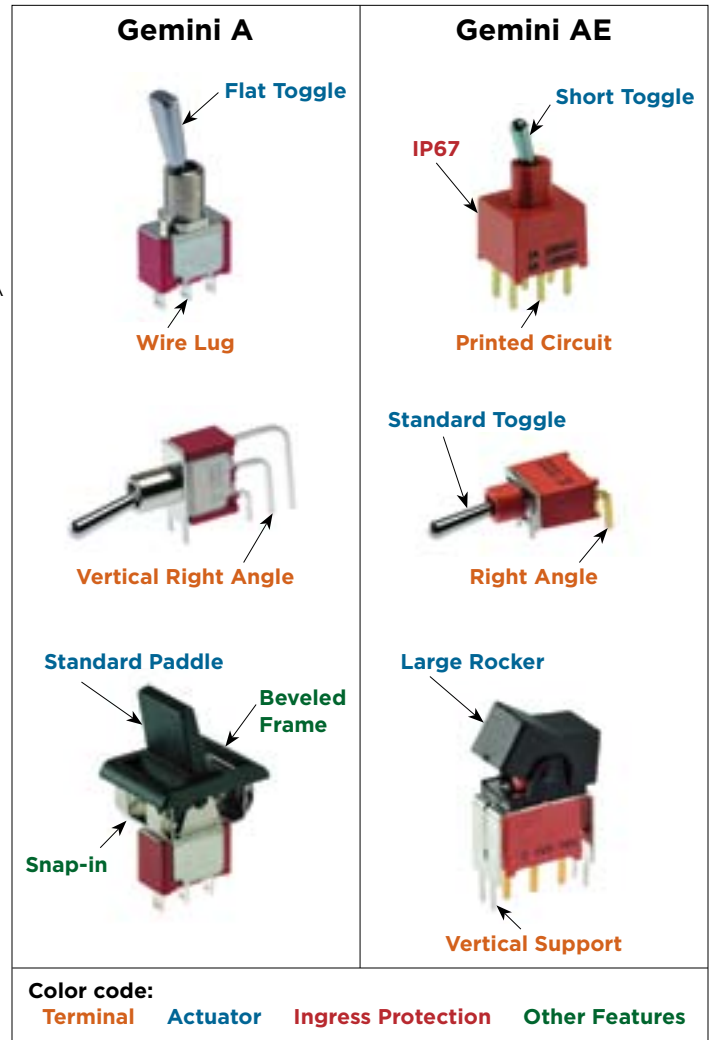
- Contact Configuration :** 1, 2, 3, and 4 pole
- Contact Timing :** Break before make
- Contact Rating Max. :**
  - Gold : 0.4VA @20V AC or DC
  - Gold over Silver : 5A @ 125VAC or 28VDC resistive  
0.4VA @ 20V AC or DC or  
2A @ 250VAC resistive
  - Silver : 5A @ 125VAC or 28VDC resistive
- Electrical Life :** 6000 cycles
- Contact Resistance, Initial :** 10 mOhms max. at 2-4 VDC 100 mA
- Insulation Resistance :** 1,000 MOhms
- Dielectric Strength :** 1,000 Vrms @ sea level
- Actuator Travel :** 22° for D and E function  
18° for F and G function

**Environmental Specification**

- Operating Temperature :** -30 to +85°C
- Storage Temperature :** -30 to +85°C
- Solder Heat Resistance :** Wave solder capable to 265°C
- Terminal Seal :** Single pole: epoxy

**Material Specifications**

- Contacts :**
  - Contacts B : Copper alloy finish gold over nickel
  - Contacts G : Copper alloy finish gold over silver
  - Contacts Q : Copper alloy finish silver
- Actuator :** Brass alloy finish nickel
- Terminals :**
  - Contacts B : Copper alloy finish gold over nickel
  - Contacts G : Copper alloy finish gold over silver
  - Contacts Q : Copper alloy finish silver
- Case :** Thermoplastic
- Bushing :** Brass alloy finish nickel
- Internal Actuator :** Phenolic
- Spring :** Music wire
- Support Bracket :** Brass tin plated
- Seal :** Epoxy



**Gemini A Toggle Product Key**

		Typical Product Key		A	1	01	P3	Z	Q	04
Type	Gemini A Series Toggles									
Number of Poles	1	Single pole	2	Double pole						
Function	Single and double pole			Double pole only						
	01	ON-ON	07	ON-OFF-(ON)	11	ON-ON-ON				
	03	ON-OFF-ON	08	ON-(ON)	13	ON-ON-(ON)				
	05	(ON)-OFF-(ON)			15	(ON)-ON-(ON)				
Toggles	S	Bat long	M	Bat short	T	Large toggle & bushing (15/32)	L1	Lever		
	K	Locking	P3	Flatted (with bushing code Y only)	T1	Large toggle & bushing (15/32)	L2	Lever		
	K1	Locking			L	Lever				
Bushing	blank	Toggles K1 & P3: 1/4-40 threaded .35 (8.9) long		D	1/4-40 threaded .28 (7.1) long	Y	1/4-40 threaded .35 (8.9) long			
	CW	1/4-40 threaded .37 (9.4) long, environmental seals (toggles codes S & M only)		D9	unthreaded .28 (7.1) long	Y9	unthreaded .35 (8.9) long			
				H	1/4-40 threaded .3 (7.6) long					
Terminations	A	Right angle	C	Printed circuit	V40	Vertical support	W4	Wire wrap		
	AV2	Vertical right angle	V30	Vertical support	W	Wire wrap	Z	Wire lug		
Contacts	B	Gold	G	Gold over silver	Q	Silver				
Material	04	RoHS Compliant								

GEMINI A SERIES TOGGLES								
Product Key	Poles	Function	Toggles	Bushing	Terminations	Contacts	Material	Part Number
A101KZQ04	1	ON-ON	Locking	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	1825136-7
A101MD9AB04	1	ON-ON	Bat Short	Unthreaded .28 (7.1)	Right Angle	Gold	RoHS Compliant	1-1825136-2
A101MD9AQ04	1	ON-ON	Bat Short	Unthreaded .28 (7.1)	Right Angle	Silver	RoHS Compliant	1-1825136-4
A101MD9AV2B04	1	ON-ON	Bat Short	Unthreaded .28 (7.1)	Vertical Right Angle	Gold	RoHS Compliant	1-1825136-5
A101MDZQ04	1	ON-ON	Bat Short	1/4-40 Threaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	2-1825136-2
A101MYZQ04	1	ON-ON	Bat Short	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	2-1825136-4
A101SCWZQ04	1	ON-ON	Bat Long	1/4-40 threaded .37 (9.4)	Wire Lug	Silver	RoHS Compliant	3-1825136-1
A101SD9AB04	1	ON-ON	Bat Long	Unthreaded .28 (7.1)	Right Angle	Gold	RoHS Compliant	3-1825136-2
A101SD9V30B04	1	ON-ON	Bat Long	Unthreaded .28 (7.1)	Vertical Support	Gold	RoHS Compliant	3-1825136-6
A101SHZQ04	1	ON-ON	Bat Long	1/4-40 threaded .3 (7.6)	Wire Lug	Silver	RoHS Compliant	4-1825136-0
A101SYCB04	1	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Gold	RoHS Compliant	4-1825136-4
A101SYCQ04	1	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	4-1825136-5
A101SYZB04	1	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Gold	RoHS Compliant	4-1825136-8
A101SYZQ04	1	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	4-1825136-9
A101TCQ04	1	ON-ON	Lg. Tgl. & Bushing	Unthreaded .28 (7.1)	Printed Circuit	Silver	RoHS Compliant	5-1825136-4
A101TZQ04	1	ON-ON	Lg. Tgl. & Bushing	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	5-1825136-5
A103KZQ04	1	ON-OFF-ON	Locking	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	1825137-1
A103MD9AV2B04	1	ON-OFF-ON	Bat Short	Unthreaded .28 (7.1)	Vertical Right Angle	Gold	RoHS Compliant	1825137-5
A103SYCQ04	1	ON-OFF-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	1-1825137-6
A103SYWB04	1	ON-OFF-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Wrap	Gold	RoHS Compliant	1-1825137-7
A103SYWQ04	1	ON-OFF-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Right Angle	Silver	RoHS Compliant	1-1825137-8
A103SYZB04	1	ON-OFF-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Gold	RoHS Compliant	1-1825137-9
A105MD9AB04	1	(ON)-OFF-(ON)	Bat Short	Unthreaded .28 (7.1)	Right Angle	Gold	RoHS Compliant	2-1825137-4
A105SYCQ04	1	(ON)-OFF-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	3-1825137-7
A105SYZQ04	1	(ON)-OFF-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	3-1825137-9
A105TZQ04	1	(ON)-OFF-(ON)	Lg. Tgl. & Bushing	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	4-1825137-2
A107SYCQ04	1	ON-OFF-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	5-1825137-1
A107SYZQ04	1	ON-OFF-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	5-1825137-2
A108SYZQ04	1	ON-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	6-1825136-4
A201KAB04	2	ON-ON	Locking	Unthreaded .28 (7.1)	Right Angle	Gold	RoHS Compliant	1825138-1
A201KZQ04	2	ON-ON	Locking	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	1825138-3
A201MD9AB04	2	ON-ON	Bat Short	Unthreaded .28 (7.1)	Right Angle	Gold	RoHS Compliant	1825138-6
A201MD9AQ04	2	ON-ON	Bat Short	Unthreaded .28 (7.1)	Right Angle	Silver	RoHS Compliant	1825138-7
A201MD9AV2Q04	2	ON-ON	Bat Short	Unthreaded .28 (7.1)	Vertical Right Angle	Silver	RoHS Compliant	1825138-9
A201SYCB04	2	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Gold	RoHS Compliant	2-1825138-4
A201SYCQ04	2	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	2-1825138-5
A201SYZB04	2	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Gold	RoHS Compliant	2-1825138-7
A201SYZQ04	2	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	2-1825138-8
A201TZQ04	2	ON-ON	Lg. Tgl. & Bushing	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	3-1825138-1
A203KZQ04	2	ON-OFF-ON	Locking	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	1825139-1
A203MD9AB04	2	ON-OFF-ON	Bat Short	Unthreaded .28 (7.1)	Right Angle	Gold	RoHS Compliant	1825139-2
A203SYCQ04	2	ON-OFF-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	1825139-9
A203SYZQ04	2	ON-OFF-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	1-1825139-0
A203TZQ04	2	ON-OFF-ON	Lg. Tgl. & Bushing	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	1-1825139-2
A205SYCQ04	2	(ON)-OFF-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	1-1825139-7
A205SYZQ04	2	(ON)-OFF-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	1-1825139-8
A207SYZQ04	2	ON-OFF-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	2-1825139-4
A208SYZQ04	2	ON-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	3-1825138-8
A211SYZQ04	2	ON-ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	3-1825139-9

### Gemini AE Toggle Product Key



GEMINI AE SERIES TOGGLES								
Product Key	Poles	Function	Toggles	Bushing	Terminations	Contacts	Material	Part Number
AE101MD1AB04	1	ON-ON	Bat Short	Unthreaded	Right Angle	Gold	RoHS Compliant	1825142-1
AE101MD1AQ04	1	ON-ON	Bat Short	Unthreaded	Right Angle	Gold over Silver	RoHS Compliant	1825142-4
AE101MD1AV2B04	1	ON-ON	Bat Short	Unthreaded	Vertical Right Angle	Gold	RoHS Compliant	1825142-5
AE101MD1CB04	1	ON-ON	Bat Short	Unthreaded	Printed Circuit	Gold	RoHS Compliant	1825142-8
AE101SD1AB04	1	ON-ON	Bat Long	Unthreaded	Right Angle	Gold	RoHS Compliant	1-1825142-5
AE101SD1CB04	1	ON-ON	Bat Long	Unthreaded	Printed Circuit	Gold	RoHS Compliant	2-1825142-0
AE103MD1AV2B04	1	ON-OFF-ON	Bat Short	Unthreaded	Vertical Right Angle	Gold	RoHS Compliant	2-1825142-5
AE103SD1CB04	1	ON-OFF-ON	Bat Long	Unthreaded	Printed Circuit	Gold	RoHS Compliant	3-1825142-0
AE105SD1CB04	1	ON-OFF-ON	Bat Long	Unthreaded	Printed Circuit	Gold	RoHS Compliant	3-1825142-9
AE201SD1AV2B04	2	ON-ON	Bat Long	Unthreaded	Vertical Right Angle	Gold	RoHS Compliant	1825143-9
AE201SD1CB04	2	ON-ON	Bat Long	Unthreaded	Printed Circuit	Gold	RoHS Compliant	1-1825143-0
AE201SD1CQ04	2	ON-ON	Bat Long	Unthreaded	Printed Circuit	Silver	RoHS Compliant	1-1825143-1
AE203SD1AV2B04	2	ON-OFF-ON	Bat Long	Unthreaded	Vertical Right Angle	Gold	RoHS Compliant	1-1825143-7
AE203SD1AV2Q04	2	ON-OFF-ON	Bat Long	Unthreaded	Vertical Right Angle	Silver	RoHS Compliant	1-1825143-8
AE203SD1CB04	2	ON-OFF-ON	Bat Long	Unthreaded	Printed Circuit	Gold	RoHS Compliant	1-1825143-9

### Gemini A Rocker Paddle Product Key



GEMINI A SERIES ROCKER/PADDLE									
Product Key	Poles	Function	Actuator	Terminals	Contacts	Act. Color	Fr. Color	Material	Part Number
A101J1AV2Q004	1	ON-ON	Small	Vertical Right Angle	Silver	Black	N/A	RoHS Compliant	1-1571986-1
A101J1ZQ004	1	ON-ON	Small	Wire Lug	Silver	Black	N/A	RoHS Compliant	1-1571986-7
A101J51ZQ004	1	ON-ON	Snap-in	Wire Lug	Silver	Black	Black	RoHS Compliant	3-1571986-4
A103J51ZQ004	1	ON-OFF-ON	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	4-1571986-5
A105J1ZQ004	1	(ON)-OFF-(ON)	Small	Wire Lug	Silver	Black	N/A	RoHS Compliant	5-1571986-3
A105J3ZQ004	1	(ON)-OFF-(ON)	Large	Wire Lug	Silver	Black	N/A	RoHS Compliant	5-1571986-9
A105J51ZQ004	1	(ON)-OFF-(ON)	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	6-1571986-1
A107J51ZQ004	1	ON-OFF-(ON)	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	6-1571986-5
A108J51ZQ004	1	ON-(ON)	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	6-1571986-9
A201J1AQ004	2	ON-ON	Small	Right Angle	Silver	Black	N/A	RoHS Compliant	1571987-2
A201J1AV2Q004	2	ON-ON	Small	Vertical Right Angle	Silver	Black	N/A	RoHS Compliant	1571987-4
A201J50ZQ004	2	ON-ON	Snap-in	Wire Lug	Silver	Black	N/A	RoHS Compliant	1-1571987-4
A201J51ZQ004	2	ON-ON	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	1-1571987-5
A201J61ZQ004	2	ON-ON	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	1-1571987-9
A203J51ZQ004	2	ON-OFF-ON	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	2-1571987-6
A203J61ZQ004	2	ON-OFF-ON	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	2-1571987-7
A205J51ZQ004	2	(ON)-OFF-(ON)	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	3-1571987-3
A205J61ZQ004	2	(ON)-OFF-(ON)	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	3-1571987-4

Gemini AE Rocker Paddle Product Key



GEMINI AE SERIES ROCKER/PADDLE									
Product Key	Poles	Function	Actuator	Terminals	Contacts	Act. Color	Material	Part Number	
AE101J1AQ004	1	ON-ON	Standard	Right Angle	Silver	Black	RoHS Compliant	1571988-2	
AE101J1AV2Q004	1	ON-ON	Standard	Vertical Right Angle	Silver	Black	RoHS Compliant	1571988-4	
AE101J1V3B004	1	ON-ON	Standard	Br. .620 (15.75)	Gold	Black	RoHS Compliant	1571988-5	
AE105J1V3B004	1	(ON)-OFF-(ON)	Standard	Br. .620 (15.75)	Gold	Black	RoHS Compliant	1-1571988-0	
AE201J1AV2Q004	2	ON-ON	Standard	Vertical Right Angle	Silver	Black	RoHS Compliant	1571989-2	
AE201J1V3B004	2	ON-ON	Standard	Br. .620 (15.75)	Gold	Black	RoHS Compliant	1571989-3	

# How to Specify a Switch

## Electrical Considerations

Voltage of Applications: \_\_\_\_\_ Current of Application: \_\_\_\_\_

Circuitry Configuration: Number of Poles: \_\_\_\_\_ Number of Throws: \_\_\_\_\_

Number of Operations anticipated: \_\_\_\_\_

Agency Approvals or Listings Desired: \_\_\_\_\_

## Mechanical Considerations

Type of Switch (Actuator Type): \_\_\_\_\_ Toggle \_\_\_\_\_ Pushbutton \_\_\_\_\_ Rotary \_\_\_\_\_ Rocker \_\_\_\_\_ Other

Switch Function (On/Off/On): \_\_\_\_\_ On/Off: \_\_\_\_\_ Momentary: \_\_\_\_\_

Termination: \_\_\_\_\_ Thru-Hole (PC) \_\_\_\_\_ Surface Mount \_\_\_\_\_ Wire Lug \_\_\_\_\_ Quick Connect \_\_\_\_\_ Other

Sealing Contamination Requirements: \_\_\_\_\_

## Product Processing Considerations

Anticipated Soldering Process: \_\_\_\_\_ Hand \_\_\_\_\_ Wave \_\_\_\_\_ SMT \_\_\_\_\_ Other

## FOR MORE INFORMATION

### TE Technical Support Center

USA: +1 (800) 522-6752  
Canada: +1 (905) 475-6222  
Mexico: +52 (0) 55-1106-0800  
Latin/S. America: +54 (0) 11-4733-2200  
Germany: +49 (0) 6251-133-1999  
UK: +44 (0) 800-267666  
France: +33 (0) 1-3420-8686  
Netherlands: +31 (0) 73-6246-999  
China: +86 (0) 400-820-6015

Part numbers in this brochure are RoHS Compliant\*, unless marked otherwise.

\*as defined [www.te.com/leadfree](http://www.te.com/leadfree)

## te.com

© 2011 Tyco Electronics Corporation, a TE Connectivity Ltd. Company. All Rights Reserved.

2-1773458-5 CIS LUG FP 1M 04/2011

TE Connectivity, TE connectivity (logo) and TE (logo) are trademarks. Other logos, product and/or company names might be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information in this brochure, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this catalog are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE for the latest dimensions and design specifications.





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.