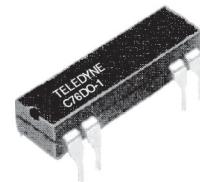
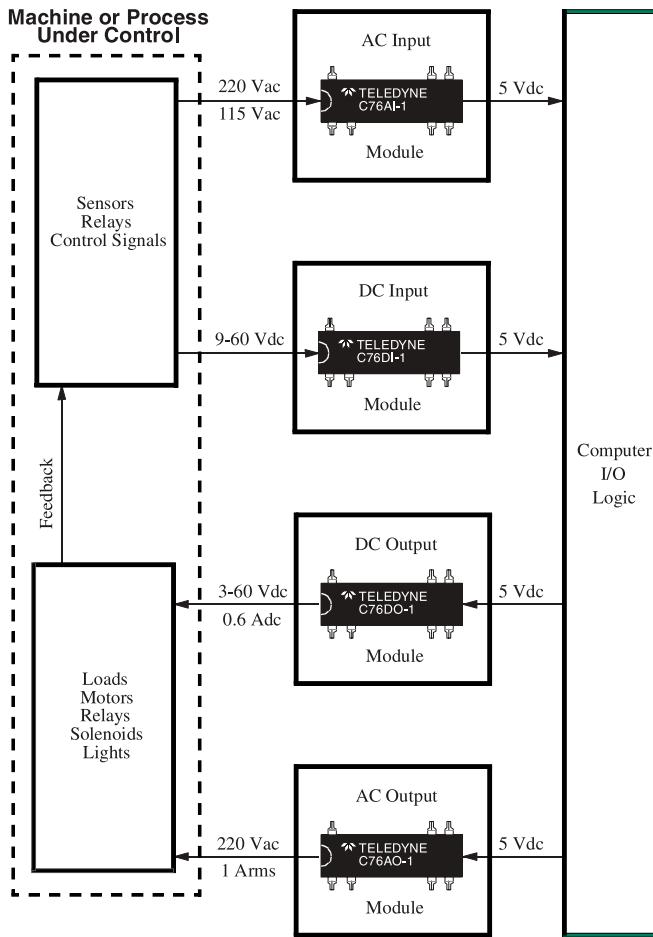


C76 I/O INTERFACE SYSTEM



APPLICATIONS

- Robotics
- Programmable Controllers
- Process Control
- Machine Tool Control
- Energy Management
- Automatic Test Equipment

FEATURES/BENEFITS

- Input Enable Function: For computer timing function control.
- Floating Outputs: Eliminates ground loops and signal noise. Protects computer I/O and logic circuits
- Low Off-State Leakage: High off-state impedance
- Switches/Controls High Voltages: To 250 Vrms
- Switches/Controls High Currents: To 1.0 Arms
- High Noise Immunity: Control signals isolated from switching noise
- High Dielectric Strength: Safety and protection of control and signal level circuits

DESCRIPTION

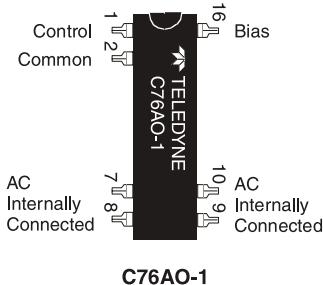
The Series C76 solid-state computer input/output modules are designed expressly for application in computerized control systems where reliable noise-free interface of switching is required to isolate computer logic elements from high conducted noise encountered in industrial environments. Sensitive logic circuitry is kept noise-free by means of optical isolation between logic and power lines.

Output modules allow either TTL or CMOS level signals to control the switching of power to high voltage and high current loads. Hysteresis at the input significantly increases the noise margin when used in the CMOS input mode, preventing false triggering in noisy environments.

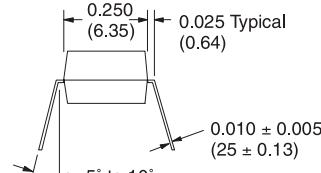
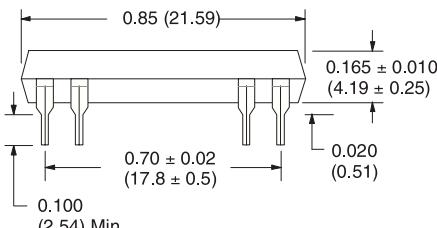
Input modules convert the presence or absence of load level voltages from pressure, flow, temperature and other transducers, limit switches, solenoids or relays to "clean" low level logic signals for computer input. An ENABLE function maintains the module's output in an "open" state until the ENABLE terminal is brought up to the bias supply level.

Part Number	Type	Characteristics
C76AO-1	AC Output	3.8 to 16 Vdc Input 5 to 250 Vrms, 1 A Output
C76AI-1	AC Input	90 to 250 Vrms Input 0 to 60 Vdc, 100 mA Output
C76DO-1	DC Output	3.8 to 16 Vdc Input 3 to 60 Vdc, 0.6 A Output
C76DI-1	DC Input	9 to 60 Vdc Input 0 to 60 Vdc, 100 mA Output

PIN CONFIGURATIONS

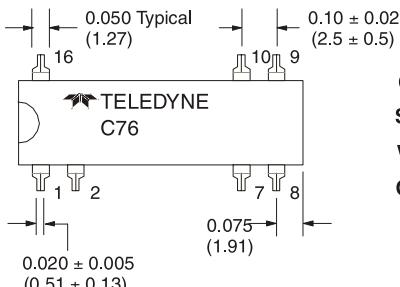
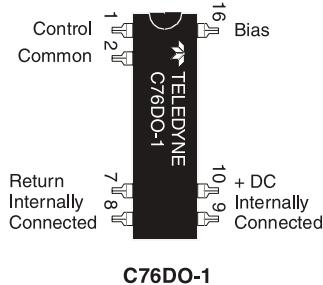


MECHANICAL SPECIFICATION



DIMENSIONS ARE SHOWN IN INCHES (MILLIMETERS)

Tolerances (unless otherwise specified) \pm 0.015 (0.38)

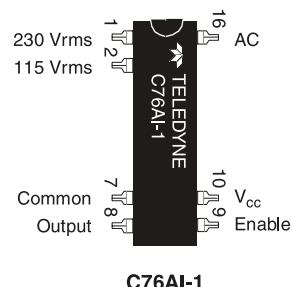


Operating Temperature Range: -40°C to 85°C

Storage Temperature Range: -40°C to 100°C

Weight: 2.0 gm. maximum

Case: Special 16 pin dual In line, filled epoxy.



TRUTH TABLE FOR ENABLE FUNCTION

V_{IN} ¹	ENABLE ²	OUTPUT ³
0	0	0
1	0	0
0	1	0
1	1	1

1. For C76AI-1:

When using 115 Vrms input, V_{IN} is a "1" when the voltage is ≥ 90 Vrms
When using 220 Vrms input, V_{IN} is a "1" when the voltage is ≥ 180 Vrms

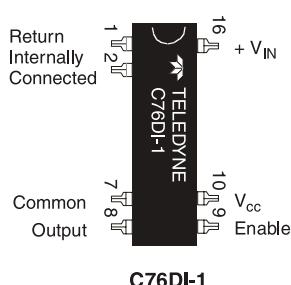
2. For C76AI-1 and C76DI-1:

The Enable input is a "1" when the Enable voltage V_E is ≥ 2.0 Vdc.
The Enable input is a "0" when the Enable voltage V_E is ≤ 0.4 Vdc.

3. A "0" represents an open output switch.
A "1" represents a closed output switch.

NOTE:

When used in the CMOS input configuration, the C76AO-1 and the C76DO-1 provide inversion. When the input voltage is 0.5 Vdc or less the output will be guaranteed "On". When the input voltage is 2.8 Vdc or more the output will be guaranteed "Off".



(TOP VIEW)

Series C76 / C76AO-1 Input Modules

ELECTRICAL SPECIFICATIONS (25°C UNLESS OTHERWISE SPECIFIED)

TTL INPUT (BIAS) SPECIFICATIONS (See Figure 4)

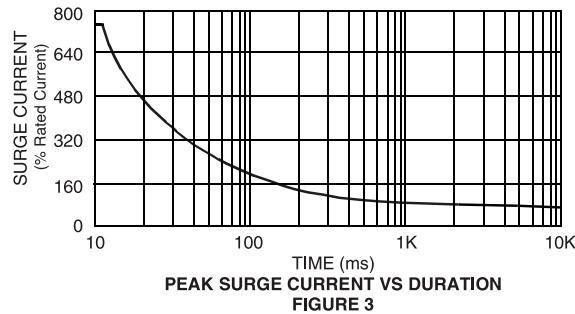
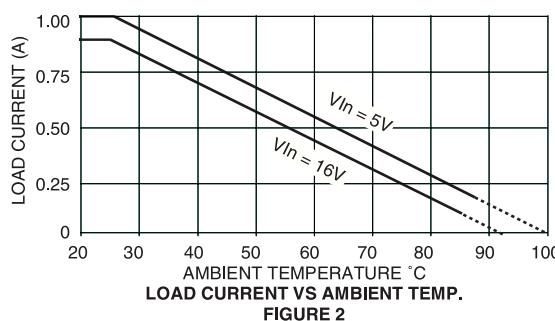
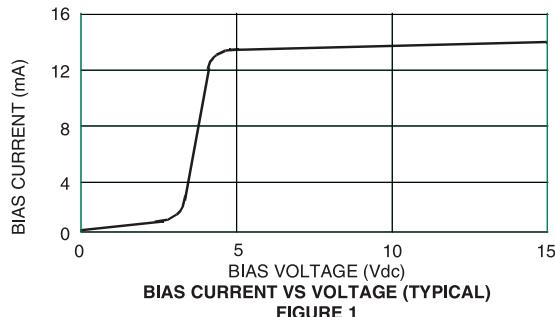
Parameter	Min	Max	Units
Bias Voltage Range (See Fig. 1)	3.8	16.0	Vdc
Bias Current @ 5 Vdc	16.0		mA
Must Turn-On Voltage	3.8		Vdc
Must Turn-Off Voltage	1.5		Vdc
Reverse Voltage Protection	-32.0		Vdc

CMOS INPUT (CONTROL) SPECIFICATIONS (See Figure 4)

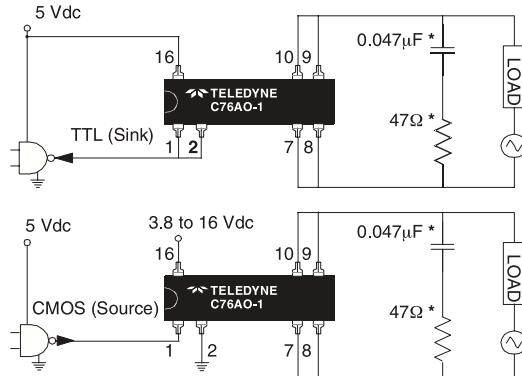
Parameter	Min	Max	Units
Control Voltage Range	16.0		Vdc
Control Current at 5 Vdc	250		Adc
Must Turn-On Voltage	0.5		Vdc
Must Turn-Off Voltage	2.8		Vdc
Bias Voltage Range	3.8	16	Vdc

OUTPUT (LOAD) SPECIFICATIONS

Parameter	Min	Max	Units
Load Voltage Range	5.0	250	Vrms
Output Current Rating (See Fig. 2)	0.01	1.0	Arms
Frequency Range	40	80	Hz
Over Voltage Rating (25°C)	±500		Vpeak
On-State Voltage Drop @ 1 Arms	1.5		Vrms
Zero Voltage Turn-On	±17.0		Vpeak
Surge Current Rating (See Fig. 3) 16 msec, 25°C	8.0		Apeak
Turn-On Time	1/2		Cycle
Turn-Off Time	1		Cycle
Leakage Current (Off-State) @ 230 Vrms	1.0		mA
Off-State dV/dt w/o Snubber	200		V/μs
Isolation (Input to Output)	10 ⁹		Ohms
Dielectric Strength (Input to Output)	3750		Vac
Capacitance (Input to Output)	5.0		pF
Junction Temperature (T _J)	150		°C



TYPICAL INTERFACE TO TTL AND CMOS LOGIC



* RC snubber network is optional for protecting switching system from high voltage transients

FIGURE 4

Series C76 / C76AI-1 Input Modules

INPUT (CONTROL) SPECIFICATIONS				
Parameter		Min	Max	Units
Control Voltage Range	$V_{IN} = 115$ Vrms	90	135	Vrms
	$V_{IN} = 220$ Vrms	180	250	Vrms
Input Current	$V_{IN} = 115$ Vrms		3.5	mA
	$V_{IN} = 220$ Vrms		3.0	mA
Must Turn-Off Voltage	115 Vrms; V_{IN}	20		Vrms
	230 Vrms; V_{IN}	50		Vrms
Input Transient (≤ 1 ms)			± 600	Vpeak
INPUT (ENABLE) SPECIFICATIONS				
Parameter		Min	Max	Units
Enable Voltage		2.0	15.0	Vdc
Enable Current			10.0	μ A
OUTPUT SPECIFICATIONS				
Parameter		Min	Max	Units
Logic Supply Voltage (V_{cc})		4.0	16.0	Vdc
Breakdown Output Voltage Rating (V_o)			60	Vdc
Output Current Rating (See Figure 3)			100	mA
On Resistance			6.0	Ohms
Output Leakage Current @ 15 Vdc			10	μ A
Turn-On Time			40	ms
Turn-Off Time			40	ms
Insulation Resistance (Input to Output)	10^9			Ohms
Dielectric Strength (Input to Output)	3750			Vac
Capacitance (Input to Output)	5.0			pF
Junction Temperature (T_J)		125		°C
Output Voltage Drop			0.5	Vdc

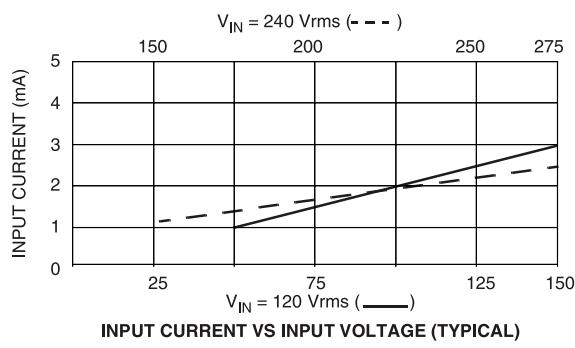


FIGURE 1

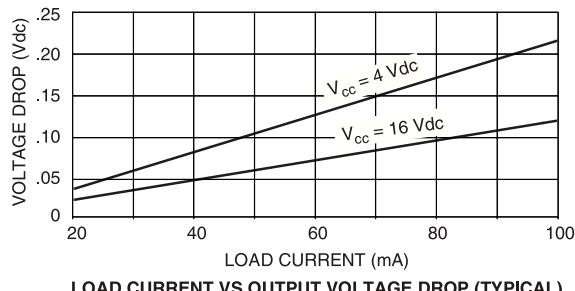


FIGURE 2

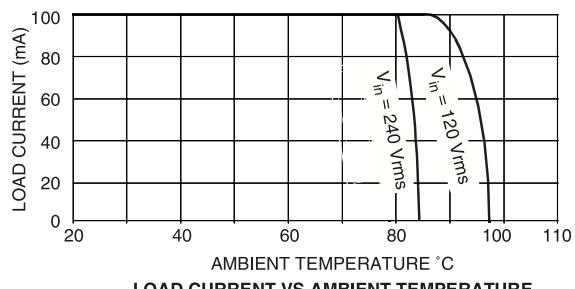
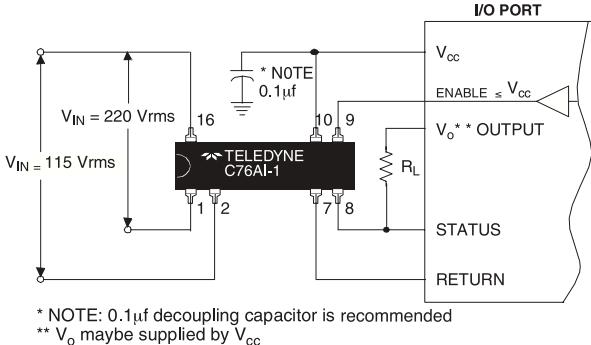


FIGURE 3

TYPICAL INTERFACE TO I/O PORT



Series C76 / C76D1-1 Output Modules

ELECTRICAL SPECIFICATIONS (25°C UNLESS OTHERWISE SPECIFIED)

INPUT (CONTROL) SPECIFICATIONS

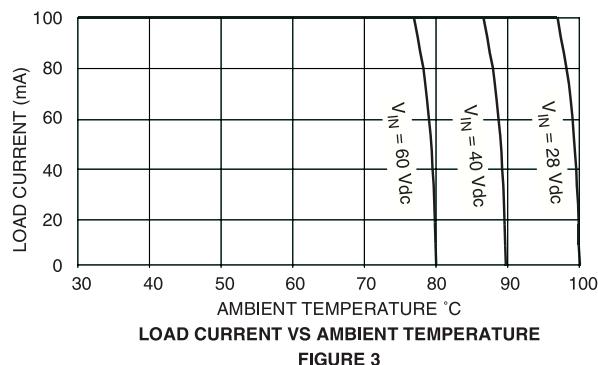
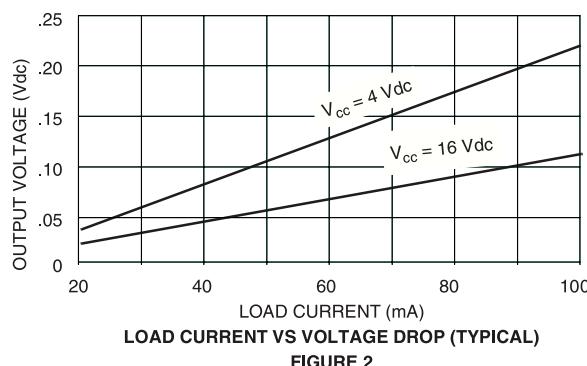
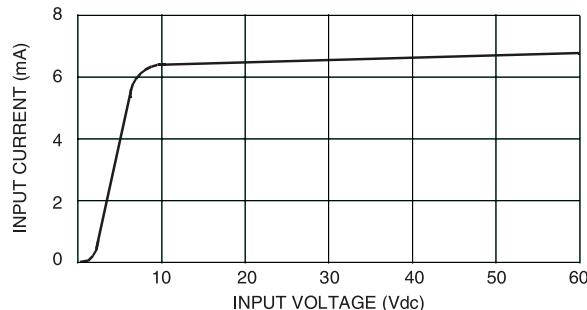
Parameter	Min	Max	Units
Control Voltage Range	9.0	60.0	Vdc
Control Current @ 55 Vdc	10.0		mA
Must Turn-On Voltage	9.0		Vdc
Must Turn-Off Voltage		1.5	Vdc
Input Transient ($\leq 1\text{ms}$)		100	Vdc

INPUT (ENABLE) SPECIFICATIONS

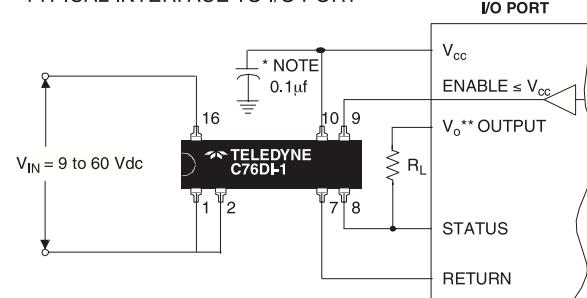
Parameter	Min	Max	Units
Enable Voltage	2.0	15.0	Vdc
Enable Current		10.0	μA

OUTPUT (LOAD) SPECIFICATIONS

Parameter	Min	Max	Units
Logic Supply Voltage (V_{cc})	4.0	16.0	Vdc
Output Breakdown Voltage Rating (V_o)		60	Vdc
Output Current Rating		100	mA
Output Voltage Drop		0.5	Vdc
Leakage Current (Off-State) @ 15 Vdc		10.0	μA
Turn-On Time		3.0	ms
Turn-Off Time		3.0	ms
Isolation (Input to Output)	10^9		Ohms
Dielectric Strength (Input to Output)	3750		Vac
Capacitance (Input to Output)		5.0	pF
Junction Temperature (T_J)		125	°C



TYPICAL INTERFACE TO I/O PORT



ELECTRICAL SPECIFICATIONS

(25°C UNLESS OTHERWISE SPECIFIED)

TTL INPUT (2 TERMINAL) SPECIFICATIONS (See Figure 4)

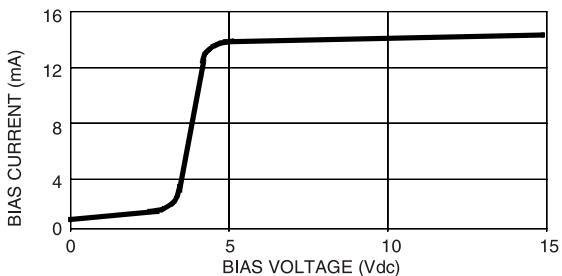
Parameter	Min	Max	Units
Control Voltage Range	3.8	16.0	Vdc
Control Current @ 5.0 Vdc	15.0		mA
Must Turn-On Voltage	3.8		Vdc
Must Turn-Off Voltage	1.5		Vdc
Reverse Voltage Protection	-32.0		Vdc

CMOS INPUT (3 TERMINAL) SPECIFICATIONS (See Figure 4)

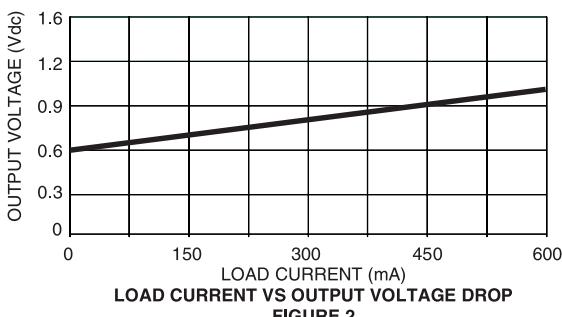
Parameter	Min	Max	Units
Control Voltage	16.0		Vdc
Control Current @ 5 Vdc	250		µA
Must Turn-On Voltage	0.5		Vdc
Must Turn-Off Voltage	2.8		Vdc
Bias Supply Range	3.8	16	Vdc
Bias Current	15		mAdc

OUTPUT (LOAD) SPECIFICATIONS

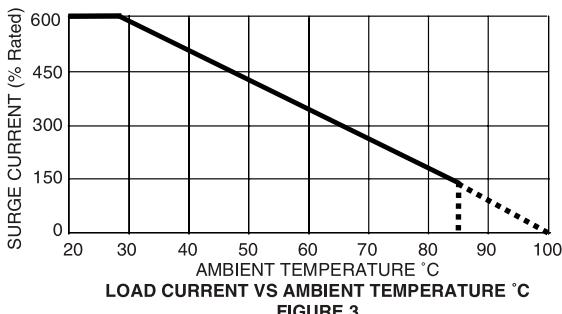
Parameter	Min	Max	Units
Load Voltage Range	3.0	60	Vdc
Output Current Rating	600		mAdc
Output Voltage Drop @ 600 mA	1.5		Vdc
Turn-On Time	50		µs
Turn-Off Time	180		µs
Leakage Current (Off-State) @ 50 Vdc	20		µA
Isolation (Input to Output)	10 ⁹		Ohms
Dielectric Strength (Input to Output)	3750		Vac
Capacitance (Input to Output)	5.0		pF
Junction Temperature (T _J)	150		°C



BIAS CURRENT VS VOLTAGE (TYPICAL)
FIGURE 1



LOAD CURRENT VS OUTPUT VOLTAGE DROP
FIGURE 2



LOAD CURRENT VS AMBIENT TEMPERATURE °C
FIGURE 3

TYPICAL INTERFACE TO TTL AND CMOS LOGIC

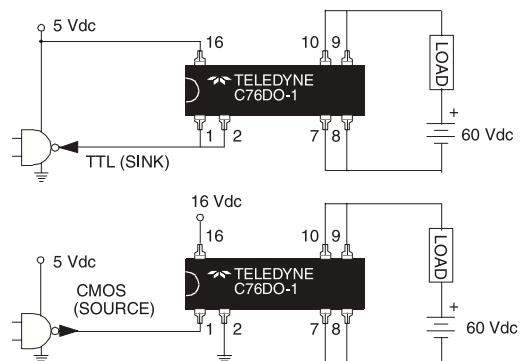


FIGURE 4

ООО "ЛайфЭлектроникс"

"LifeElectronics" LLC

ИНН 7805602321 КПП 780501001 Р/С 40702810122510004610 ФАКБ "АБСОЛЮТ БАНК" (ЗАО) в г.Санкт-Петербурге К/С 30101810900000000703 БИК 044030703

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибуторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибуторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помочь разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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Email: org@lifeelectronics.ru