Features/Benefits

- *Qualified to MIL-S-83731 Cage Code 63HW9*
- *50 µ inch selective gold contact plating*
- *Epoxy sealed terminals for process compatibility*
- *Rated for logic level to 5 amp resistive loads and 2 amp inductive loads*
- *Flame retardant housing material*
- *RoHS compliant and compatible*

Test Requirement	MIL-S-83731/9, 10, 13, 14, 15, 16
1. Strength of Terminal	1 lb. – solder lug
2. Strength of Actuating Lever Pivot and Stop	10 lbs. & 8 lbs. throughout range
3. Strength of Mounting Means	15 lbs. in. torque on bushing
4. Dielectric (Sea Level) Indication	1000 VAC Group B, 750 VAC after electrical endurance. 500µA max. leakage
5. Contact Voltage Drop	2.5 millivolt initial, 5.0 millivolt after mechanical endurance @ 2-6 VDC 0.1 amp
6. Temperature Rise	50° C rise max. @ rated resistive load after endurance test
7. Short Circuit	10 operations carry 100 amps resistive load @ lowest DC volts
8. Mechanical Life	20K operations at specified high and low temperatures
9. Electrical Endurance	10K operations at specified high and low temperatures
10. Overload	50 operations @ 150% of rated resistive load
11. Electrical Endurance at Sea Level	10K operations resistive load @ room temperature 10K operations inductive load @ room temperature 10K operations lamp load @ room temperature Performed on different test samples
12. Vibration	Method 204 of MIL-STD-202, test condition A .06 D. A. or 10 G's 10-500 Hz, 10 usec. max. chatter
13. Shock	Fuse-method 213 or MIL-STD-202, 10 usec. max. chatter
14. Salt Spray Test Upon Completion	48 hours – method 101 of MIL-STD-202, test condition B 10 operations resistive load (toggle sealed switches only)
15. Moisture Resistance Test Upon Completion	Method 106 of MIL-STD-202 100 VDC potential between current carrying parts and panel
16. Sand & Dust	Method 110 of MIL-STD-202, test condition B 6 hours @ 23°C 2.5K operations mechanical life (toggle sealed switches only)
17. Explosion	MIL-STD-202 method 109, maximum rated DC inductive load (toggle sealed switches only)
18. Sealing	Toggle seal – 5 operations under 0.5 inches of H_2O above top of bushing
19. A.) Toggle Seal B.) Bushing Seal	(Toggle sealed switches only) (Panel sealed switches only)
20. Temperature Operation	Mechanical life, –25°C to +71°C
21. Life Low Cur. Level	No requirement
22. Fungus	No requirement
23. Intermediate Current	20K operations, 35/40 milliamps @ 5 VDC resistive load @ +71°C
24. Thermal Shock	Method 107 of MIL-STD-202 test condition A; 5 cycles @ –55°C/+85°C

RATINGS

CURRENT RATINGS – HIGH LEVEL

Current Capacity in Amperes – Per Pole		
28V dc	115V ac, 400 Hz	125V ac, 60 Hz
Lamp Load		
1	1	1
Resistive Load		
5	5	5
Inductive Load		
2	2	2

CURRENT RATINGS – LOGIC LEVEL

0.5 Volt – Amp (VA) Max. @ 28 V Max. (AC or DC)

MATERIALS

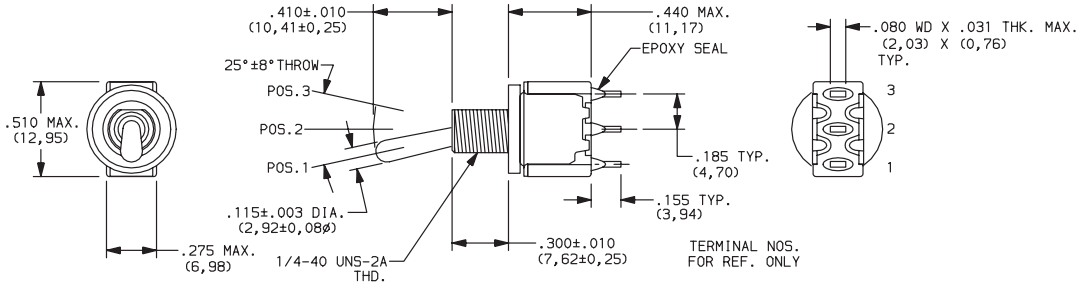
CASE: Diallyl phthalate (DAP) (UL 94 V-0).
BUSHING: Brass, nickel plated.
HOUSING: Stainless steel.
ACTUATOR: Brass, chrome plated.
SWITCH SUPPORT: Brass, tin plated.
TERMINALS: Gold over nickel over copper alloy.
TERMINAL SEAL: Epoxy.
CONTACTS: Gold over nickel over silver over brass.
PANEL SEAL: Silicone rubber.
MOUNTING HARDWARE: Two hexagon nut, brass with nickel plating; one lockwasher, steel with nickel plating; one locking ring, brass with nickel plating.

HOW TO ORDER: Complete part numbers for MIL-S-83731 TOGGLE SWITCHES are shown on pages F–18 through F–21.

Military/Aerospace/HI-REL
MIL-S-83731 Toggle Switches

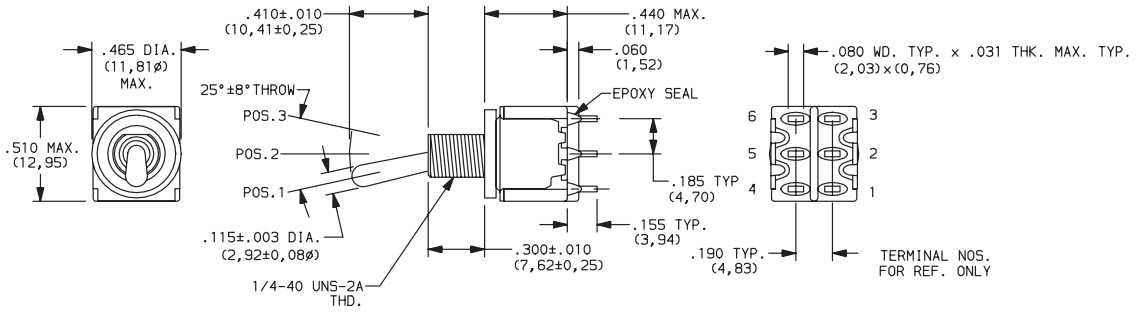
NO. POLES	MODEL NO.	SWITCH FUNCTION POS. 1	SWITCH FUNCTION POS. 2	SWITCH FUNCTION POS. 3	CONNECTED TERMINALS POS. 1	CONNECTED TERMINALS POS. 2	CONNECTED TERMINALS POS. 3	SCHEMATIC
SP	M83731/9-211	ON	OFF	ON	2-3	OPEN	2-1	2 (COMM) 1 3 SPDT
	M83731/9-231	ON	NONE	ON		N/A		
	M83731/9-261	ON	NONE	MOM.				
	M83731/9-271	MOM.	OFF	MOM.		OPEN		
	M83731/9-311	ON	OFF	MOM.				
	M83731/9-341	NONE	ON	MOM.	N/A	2-3	2-1	

SPDT

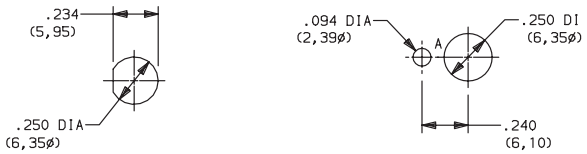


NO. POLES	MODEL NO.	SWITCH FUNCTION POS. 1	SWITCH FUNCTION POS. 2	SWITCH FUNCTION POS. 3	CONNECTED TERMINALS POS. 1	CONNECTED TERMINALS POS. 2	CONNECTED TERMINALS POS. 3	SCHEMATIC
DP	M83731/10-211	ON	OFF	ON	2-3,5-6	OPEN	2-1,5-4	2 (COMM) 5 1 3 4 6 DPDT
	M83731/10-231	ON	NONE	ON		N/A		
	M83731/10-261	ON	NONE	MOM.				
	M83731/10-271	MOM.	OFF	MOM.		OPEN		
	M83731/10-311	ON	OFF	MOM.				
	M83731/10-321	ON	ON	ON	2-3,5-6	2-3,5-4	2-1,5-4	
	M83731/10-331	ON	ON	MOM.				
	M83731/10-341	NONE	ON	MOM.	N/A	2-3,5-6	2-1,5-4	
	M83731/10-351	MOM.	ON	MOM.	2-3,5-6	2-3,5-4	2-1,5-4	

DPDT

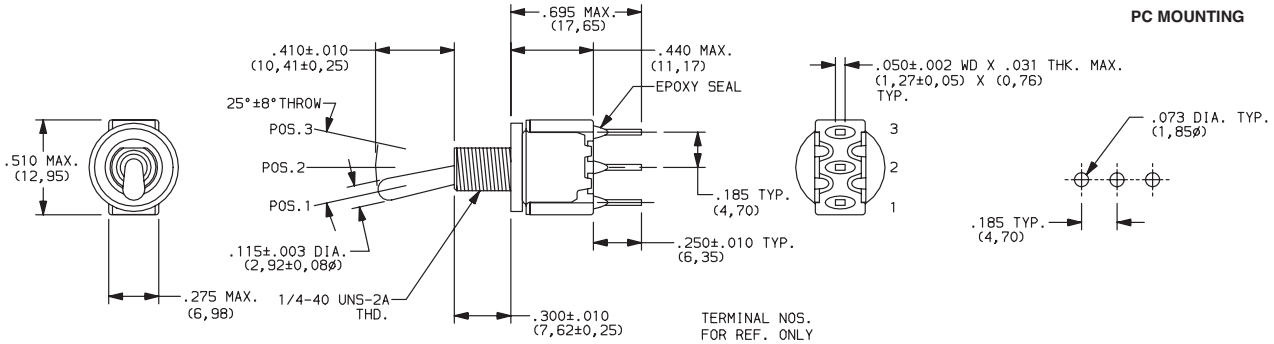


PANEL MOUNTING



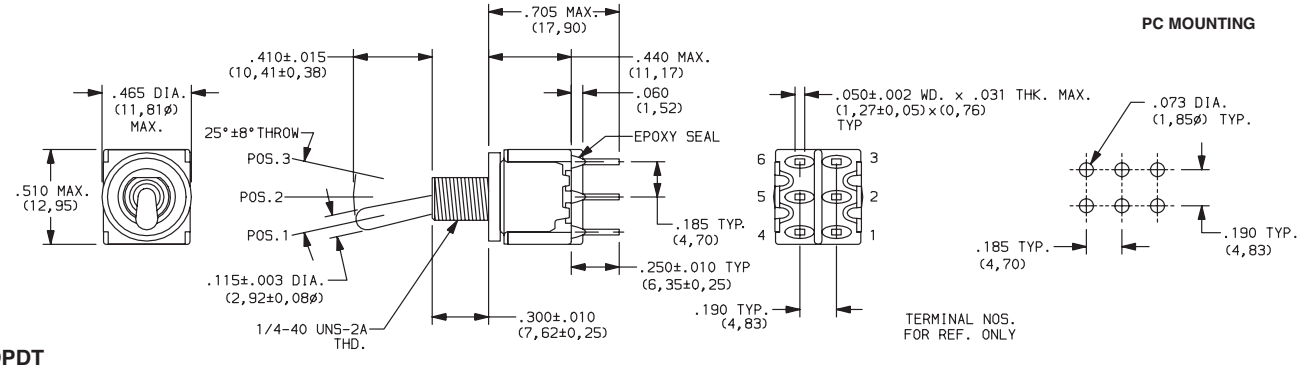
Without locking ring. With standard locking ring.

NO. POLES	MODEL NO.	SWITCH FUNCTION POS. 1	SWITCH FUNCTION POS. 2	SWITCH FUNCTION POS. 3	CONNECTED TERMINALS POS. 1	CONNECTED TERMINALS POS. 2	CONNECTED TERMINALS POS. 3	SCHEMATIC
SP	M83731/9-212	ON	OFF	ON	2-3	OPEN	2-1	2 (COMM), 1, 3
	M83731/9-232	ON	NONE	ON		N/A		SPDT
	M83731/9-262	ON	NONE	MOM.				
	M83731/9-272	MOM.	OFF	MOM.		OPEN		
	M83731/9-312	ON	OFF	MOM.				
	M83731/9-342	NONE	ON	MOM.	N/A	2-3	2-1	

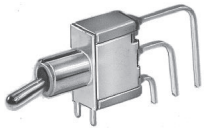


SPDT

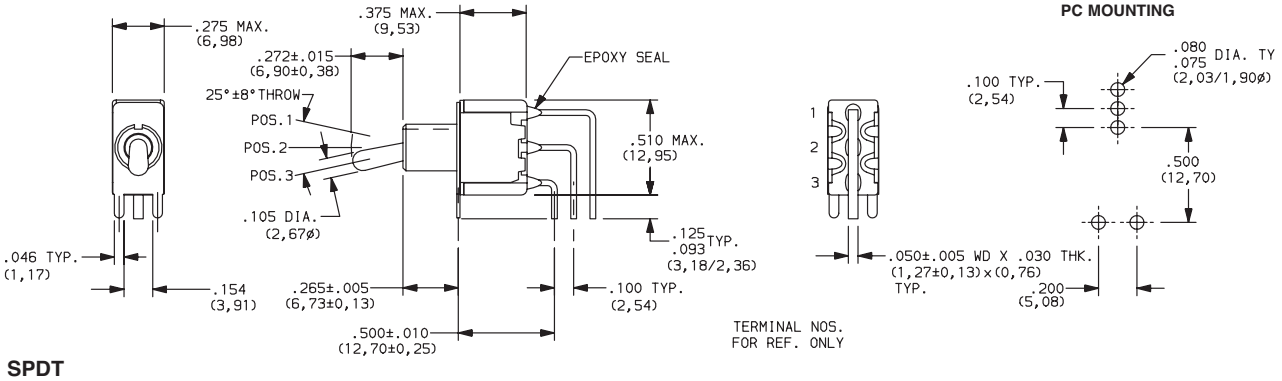
NO. POLES	MODEL NO.	SWITCH FUNCTION POS. 1	SWITCH FUNCTION POS. 2	SWITCH FUNCTION POS. 3	CONNECTED TERMINALS POS. 1	CONNECTED TERMINALS POS. 2	CONNECTED TERMINALS POS. 3	SCHEMATIC
DP	M83731/10-212	ON	OFF	ON	2-3,5-6	OPEN	2-1,5-4	2 (COMM) 5, 1, 3, 4, 6
	M83731/10-232	ON	NONE	ON		N/A		DPDT
	M83731/10-262	ON	NONE	MOM.				
	M83731/10-272	MOM.	OFF	MOM.		OPEN		
	M83731/10-312	ON	OFF	MOM.				
	M83731/10-322	ON	ON	ON	2-3,5-6	2-3,5-4	2-1,5-4	
	M83731/10-332	ON	ON	MOM.				
	M83731/10-342	NONE	ON	MOM.	N/A	2-3,5-6	2-1,5-4	
	M83731/10-352	MOM.	ON	MOM.	2-3,5-6	2-3,5-4	2-1,5-4	



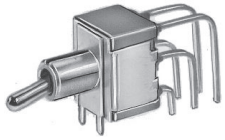
DPDT



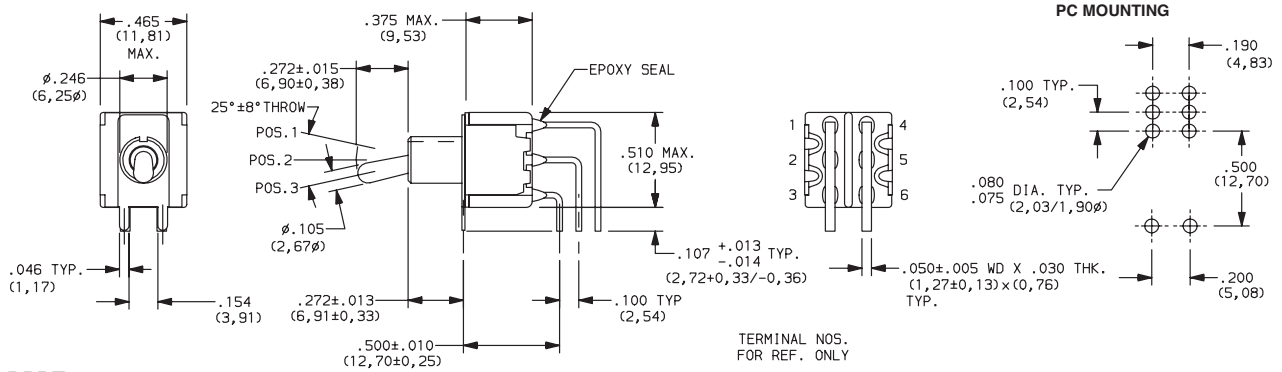
NO. POLES	MODEL NO.	SWITCH FUNCTION POS. 1	SWITCH FUNCTION POS. 2	SWITCH FUNCTION POS. 3	CONNECTED TERMINALS POS. 1	CONNECTED TERMINALS POS. 2	CONNECTED TERMINALS POS. 3	SCHEMATIC
SP	M83731/13-211	ON	OFF	ON	2-3	OPEN	2-1	2 (COMM), 1, 3 — SPDT
	M83731/13-231	ON	NONE	ON		N/A		
	M83731/13-261	ON	NONE	MOM.				
	M83731/13-271	MOM.	OFF	MOM.		OPEN		
	M83731/13-311	ON	OFF	MOM.				
	M83731/13-341	NONE	ON	MOM.	N/A	2-3	2-1	



SPDT



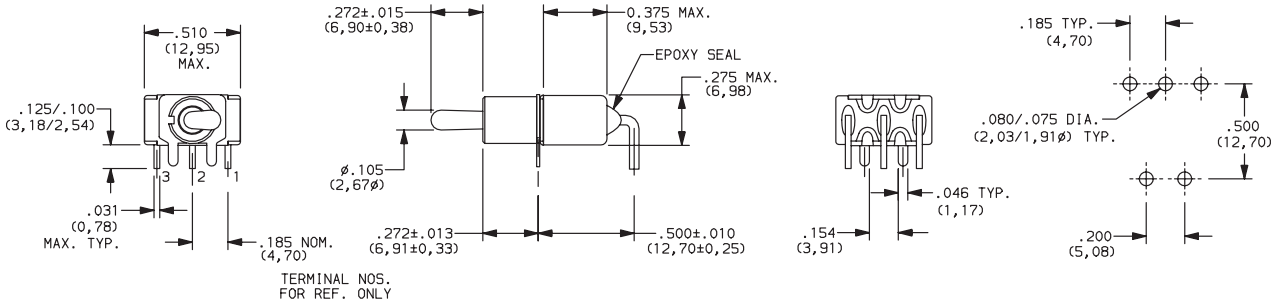
NO. POLES	MODEL NO.	SWITCH FUNCTION POS. 1	SWITCH FUNCTION POS. 2	SWITCH FUNCTION POS. 3	CONNECTED TERMINALS POS. 1	CONNECTED TERMINALS POS. 2	CONNECTED TERMINALS POS. 3	SCHEMATIC
DP	M83731/14-211	ON	OFF	ON	2-3,5-6	OPEN	2-1,5-4	2 (COMM) 5, 1, 6 — DPDT
	M83731/14-231	ON	NONE	ON		N/A		
	M83731/14-261	ON	NONE	MOM.				
	M83731/14-271	MOM.	OFF	MOM.		OPEN		
	M83731/14-311	ON	OFF	MOM.				
	M83731/14-321	ON	ON	ON	2-3,5-6	2-3,5-4	2-1,5-4	
	M83731/14-331	ON	ON	MOM.				
	M83731/14-341	NONE	ON	MOM.	N/A	2-3,5-6	2-1,5-4	
	M83731/14-351	MOM.	ON	MOM.	2-3,5-6	2-3,5-4	2-1,5-4	



DPDT

NO. POLES	MODEL NO.	SWITCH FUNCTION POS. 1	SWITCH FUNCTION POS. 2	SWITCH FUNCTION POS. 3	CONNECTED TERMINALS POS. 1	CONNECTED TERMINALS POS. 2	CONNECTED TERMINALS POS. 3	SCHEMATIC
SP	M83731/15-211	ON	OFF	ON	2-3	OPEN	2-1	2 (COMM), 1, 3 — SPDT
	M83731/15-231	ON	NONE	ON		N/A		
	M83731/15-261	ON	NONE	MOM.				
	M83731/15-271	MOM.	OFF	MOM.		OPEN		
	M83731/15-311	ON	OFF	MOM.				
	M83731/15-341	NONE	ON	MOM.	N/A	2-3	2-1	

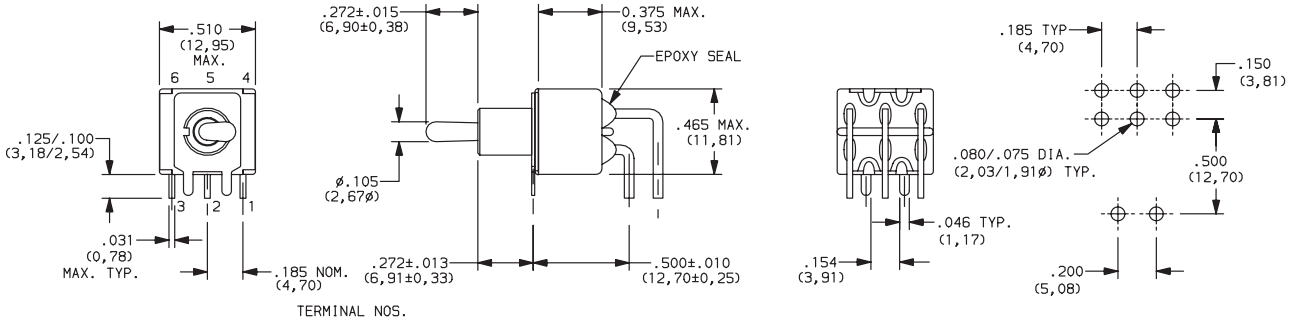
PC MOUNTING



SPDT

NO. POLES	MODEL NO.	SWITCH FUNCTION POS. 1	SWITCH FUNCTION POS. 2	SWITCH FUNCTION POS. 3	CONNECTED TERMINALS POS. 1	CONNECTED TERMINALS POS. 2	CONNECTED TERMINALS POS. 3	SCHEMATIC
DP	M83731/16-211	ON	OFF	ON	2-3,5-6	OPEN	2-1,5-4	2 (COMM), 1, 6 — DPDT
	M83731/16-231	ON	NONE	ON		N/A		
	M83731/16-261	ON	NONE	MOM.				
	M83731/16-271	MOM.	OFF	MOM.		OPEN		
	M83731/16-311	ON	OFF	MOM.				
	M83731/16-321	ON	ON	ON	2-3,5-6	2-3,5-4	2-1,5-4	
	M83731/16-331	ON	ON	MOM.				
	M83731/16-341	NONE	ON	MOM.	N/A	2-3,5-6	2-1,5-4	
	M83731/16-351	MOM.	ON	MOM.	2-3,5-6	2-3,5-4	2-1,5-4	

PC MOUNTING



DPDT

OCEAN CHIPS
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Поставка электронных компонентов

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

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- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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AVIC JONHON

«JONHON» (основан в 1970 г.)

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«FORSTAR» (основан в 1998 г.)

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Телефон: 8 (812) 309-75-97 (многоканальный)
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Электронная почта: ocean@oceanchips.ru
Web: http://oceanchips.ru/
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А