

LP100 series

Low profile miniature trackball

Distinctive features and specifications



- 1" ball diameter
- Panel mount design
- Available in black or backlit illumination
- Several protocol options
- Additional button strips available
- Environmental Protection Classification (IP Rating): contact factory

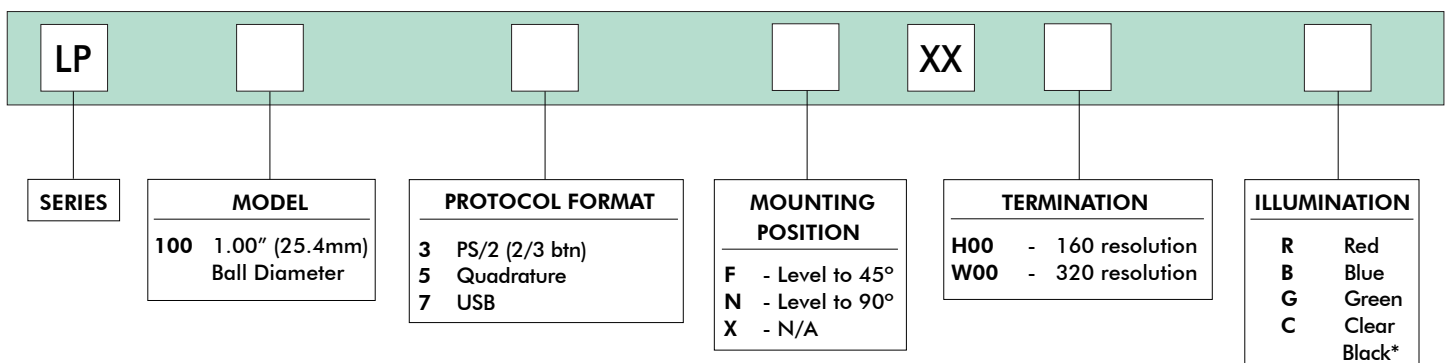
MECHANICAL	
• Ball Diameter:	1.00" (25.40mm)
• Ball Rotation:	Continuous in all directions
• Tracking Force:	15g (0.35oz)
• Weight:	33.5g (1.18oz)
• Life Cycle (ball rotations):	5 million
• Operating Temperature:	-40°C to +85°C (-40°F to +185°F)

CONFIGURATION OPTIONS
• LED backlighting: Red, Blue, Green or Clear through a translucent Thermostat resin ball
• Additional pushbutton switch: Two, three or four* buttons (* USB only) – see Button Strips
• Connector cables
• Conformally coated PCB

PROTOCOL OPTIONS AND ELECTRICAL SPECIFICATIONS	
• USB:	Input: 4.00V – 5.25V @ 25mA max (+30mA for backlit illumination option) Output: USB 1.1
• PS/2 (2/3BTN PS/2):	Input: 5.00V @ 25mA max (+30mA for backlit illumination option) Output: CMOS/TTL
• Quadrature:	Input: 5.00V @ 30mA max (+30mA for backlit illumination option) Output: Quadrature Waveforms

MOUNTING OPTIONS
• 180° horizontal to 90° vertical – please specify when ordering.

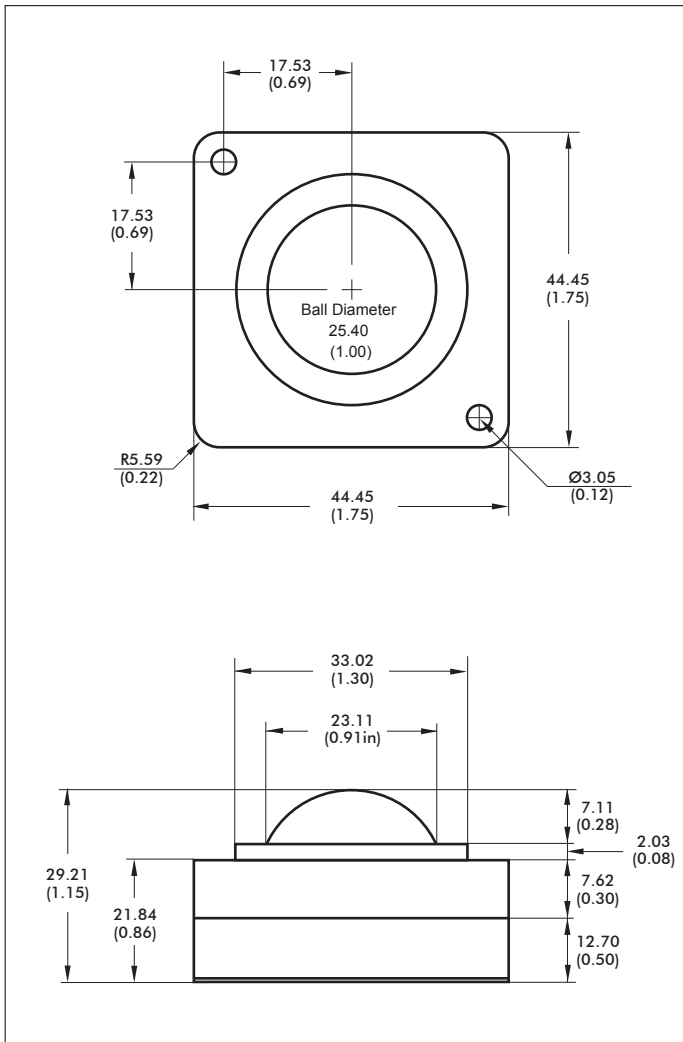
NOTE: All values are nominal.



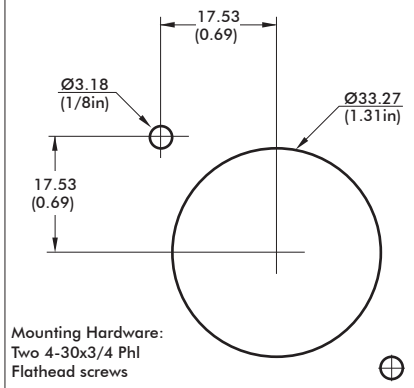
*Non-illuminated

LP100 series

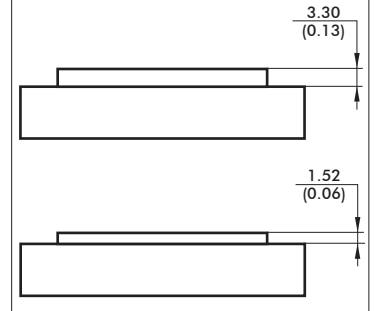
Low profile miniature trackball



MOUNTING CUTOUT DIMENSIONS



OTHER AVAILABLE PANEL DIMENSIONS*

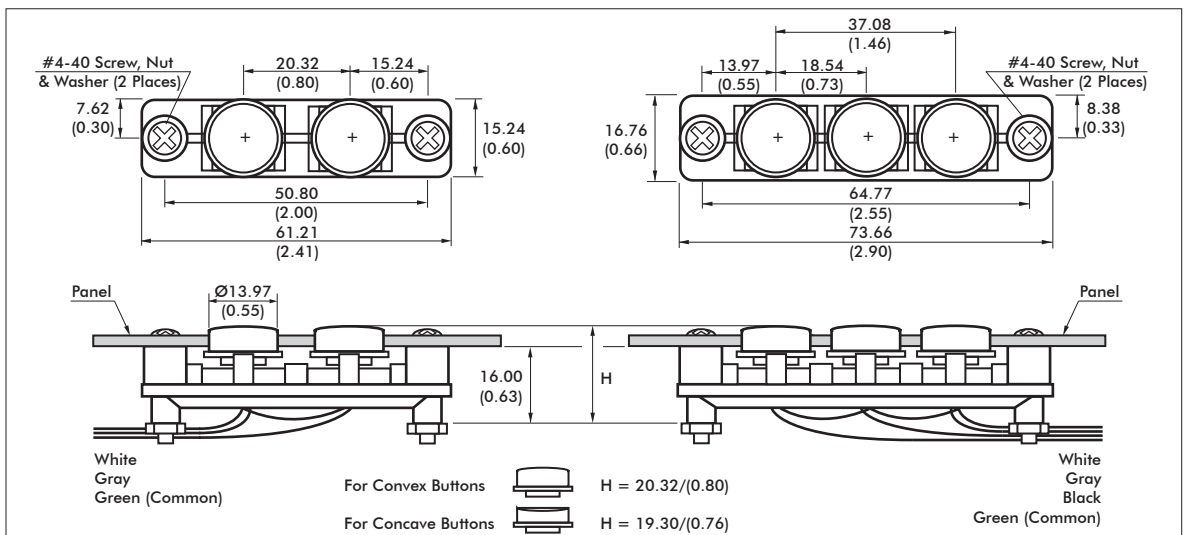


NOTES:

All dimensions are in mm/(inch).
* Please specify panel thickness with your order.

BUTTON STRIP FEATURES

- Two, three, or four* (*USB only) buttons
- Tactile feedback
- Normally open momentary contact switch
- 5 million lifecycles rating at 500mA at 12VDC
- Black or gray button caps
- Choice of convex or concave design



NOTE: All dimensions are in mm/(inch).

Note: The company reserves the right to change specifications without notice.

LP150 series

Low profile trackball

Distinctive features and specifications



- 1.5" ball diameter
- Panel mount design
- Available in black or backlit illumination
- Several protocol options
- Additional button strips available
- Environmental Protection Classification (IP Rating): contact factory

MECHANICAL	
• Ball Diameter:	1.50" (38.10mm)
• Ball Rotation:	Continuous in all directions
• Tracking Force:	10g (0.35oz)
• Weight:	118.5.5g (4.18oz)
• Life Cycle (ball rotations):	5 million
• Operating Temperature:	-40°C to +85°C (-40°F to +185°F)

CONFIGURATION OPTIONS
• LED backlighting: Red, Blue, Green or Clear through a translucent Thermostat resin ball
• Additional pushbutton switch: Two, three or four* buttons (* USB only) – see Button Strips
• Connector cables
• Conformally coated PCB

PROTOCOL OPTIONS AND ELECTRICAL SPECIFICATIONS	
• USB:	Input: 4.00V – 5.25V @ 25mA max (+30mA for backlit illumination option) Output: USB 1.1
• PS/2 (2/3BTN PS/2):	Input: 5.00V @ 25mA max (+30mA for backlit illumination option) Output: CMOS/TTL
• Microsoft Serial*:	Input: DTR/RTS @ 14 mA max (+30mA for backlit illumination option) Output: RS-232, Serial
• Quadrature:	Input: 5.00V @ 30mA max (+30mA for backlit illumination option) Output: Quadrature Waveforms
• Sun Workstation: (Mouse Systems Serial)	Input: 5.00V @ 30mA max (+30mA for backlit illumination option) Output: CMOS/TTL

MOUNTING OPTIONS
• 180° horizontal to 90° vertical – please specify when ordering.

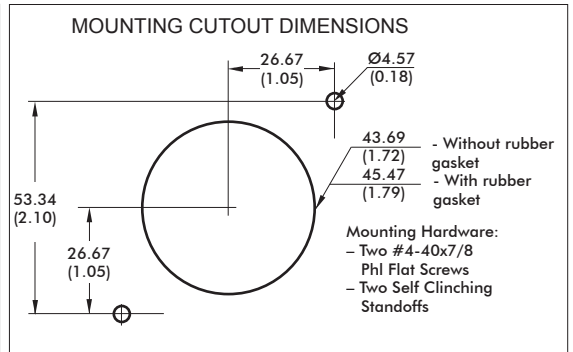
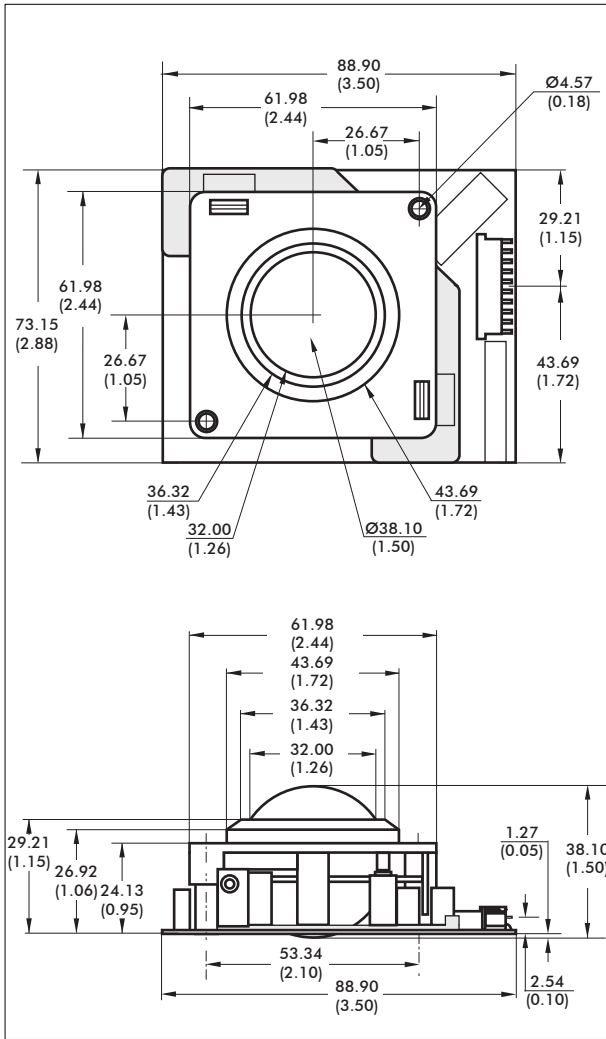
NOTE: * = Microsoft Serial Interface requires a 5V supply for the LED backlighting option.
All values are nominal.

SERIES	MODEL	PROTOCOL FORMAT	MOUNTING POSITION	RESOLUTION	POWER REQUIREMENT	ILLUMINATION
LP	150 1.50" Diameter (38.1mm)	1 Microsoft (2 btn Serial) 3 PS/2 (2/3 btn) 5 Quadrature 6 SUN Workstations 7 USB	F - Level to 45° N - Level to 90° X - N/A	10 - 120 resolution 20 - 240 resolution 30 - 480 resolution	V00 5V Regulated R00 RS-232* (DTR & RTS)	R Red B Blue G Green C Clear Black*

*Microsoft Protocol only *Non-illuminated

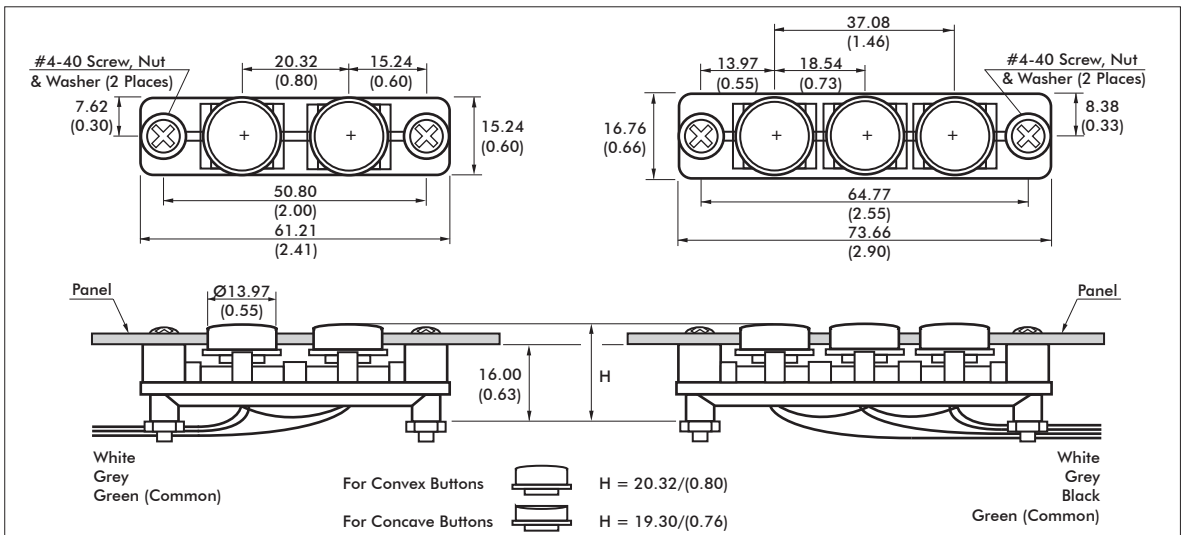
LP150 series

Low profile trackball



BUTTON STRIP FEATURES

- Two, three, or four* (*USB only) buttons
- Tactile feedback
- Normally open momentary contact switch
- 5 million lifecycles rating at 500mA at 12VDC
- Black or gray button caps
- Choice of convex or concave design



NOTE: All dimensions are in mm/(inch).

Note: The company reserves the right to change specifications without notice.

P200 series

Panel mount trackball

Distinctive features and specifications



- 2" ball diameter
- Panel mount design
- Available in black or backlit illumination
- Several protocol options
- Additional button strips available
- Environmental Protection Classification (IP Rating): contact factory

MECHANICAL
<ul style="list-style-type: none"> • Ball Diameter: 2.00" (50.80mm) • Ball Rotation: Continuous in all directions • Tracking Force: 10g (0.35oz) • Weight: 257.5g (9.07oz) • Life Cycle (ball rotations): 5 million • Operating Temperature: -40°C to +85°C (-40°F to +185°F)

CONFIGURATION OPTIONS
<ul style="list-style-type: none"> • LED backlighting: Red, Blue, Green or Clear through a translucent Thermostat resin ball • Additional pushbutton switch: Two, three or four* buttons (* USB only) – see Button Strips • Connector cables • Conformally coated PCB

PROTOCOL OPTIONS AND ELECTRICAL SPECIFICATIONS
<ul style="list-style-type: none"> • USB: Input: 4.00V – 5.25V @ 25mA max (+30mA for backlit illumination option) Output: USB 1.1 • PS/2 (2/3BTN PS/2): Input: 5.00V @ 25mA max (+30mA for backlit illumination option) Output: CMOS/TTL • Microsoft Serial*: Input: DTR/RTS @ 14 mA max (+30mA for backlit illumination option) Output: RS-232, Serial • Quadrature: Input: 5.00V @ 30mA max (+30mA for backlit illumination option) Output: Quadrature Waveforms • Sun Workstation: Input: 5.00V @ 30mA max (Mouse Systems Serial) (+30mA for backlit illumination option) Output: CMOS/TTL

MOUNTING OPTIONS
<ul style="list-style-type: none"> • 180° horizontal to 90° vertical – please specify when ordering.

NOTE: * = Microsoft Serial Interface requires a 5V supply for the LED backlighting option.
All values are nominal.

Series	Model	Protocol Format	Mounting Position	Resolution	Power Requirement	Illumination
P	200 2.00" (50.8mm) Ball Diameter	1 Microsoft (2 btn Serial) 3 PS/2 (2/3 btn) 5 Quadrature 6 SUN Workstations 7 USB	F - Level to 45° N - Level to 90° X - N/A	10 - 160 resolution 20 - 320 resolution 30 - 640 resolution	V00 5V Regulated R00 RS-232* (DTR & RTS)	R Red B Blue G Green C Clear Black*

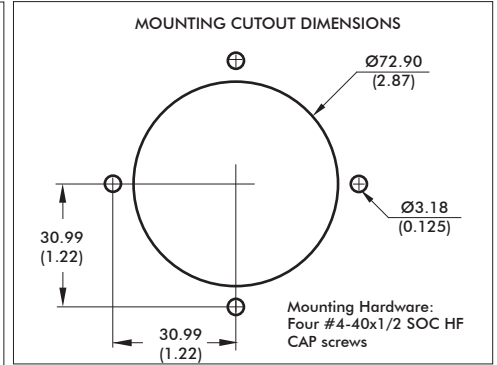
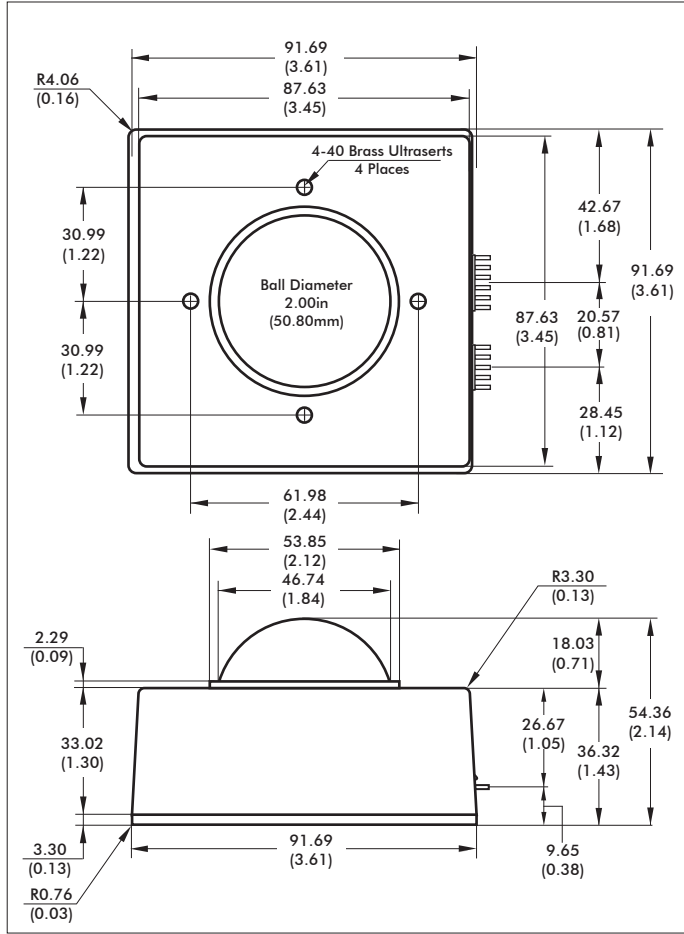
*Microsoft Protocol only

*Non-illuminated

Note: The company reserves the right to change specifications without notice.

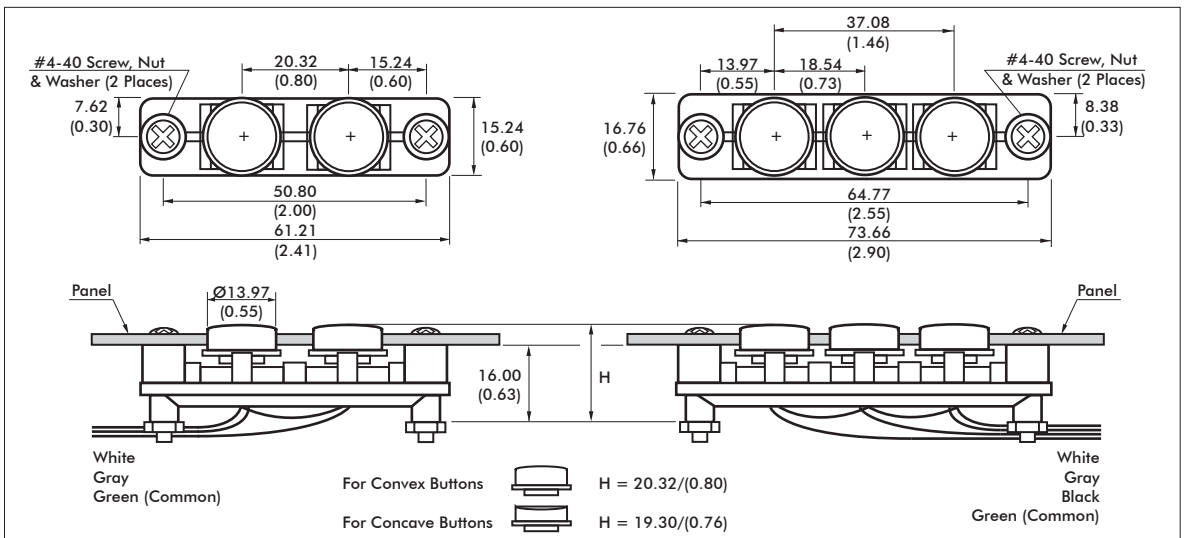
P200 series

Low profile trackball



BUTTON STRIP FEATURES

- Two, three, or four* (*USB only) buttons
- Tactile feedback
- Normally open momentary contact switch
- 5 million lifecycles rating at 500mA at 12VDC
- Black or gray button caps
- Choice of convex or concave design



NOTE: All dimensions are in mm/(inch)

Note: The company reserves the right to change specifications without notice.

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

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- 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.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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