INTERLINK ELECTRONICS
Sensor Technologies

MicroModule USB Data Sheet

USB MicroModule for Rugged Mousing Applications

Features and Benefits

- Compact
- Durable
- Sealable design
- Easy to integrate
- Ultra-thin mounting profile

Description

Both Mini Joystick and Finger Disk modules are dual click-button mousing devices designed for integration into tight, cramped spaces. The MicroModule is plug-and-play, utilizing standard mouse data output. Several cabling options are available.



Gray Finger Disk Option



Black Finger Disk Option



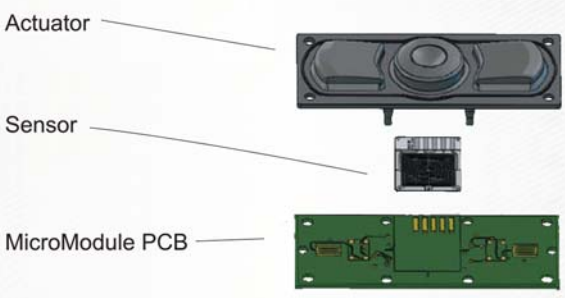
Mini Joystick Option



MicroModule, Rear View

User Control Options

The touch of a fingertip on the MicroModule actuator delivers simultaneous 360° control of cursor direction and speed. Choose from 2 actuators styles, either Mouse Button (round disk with a divot for a fingertip), or Mini Joystick (a compact stick).



P/N: 94-00024 Rev. E

USB MicroModule for Rugged Mousing Applications

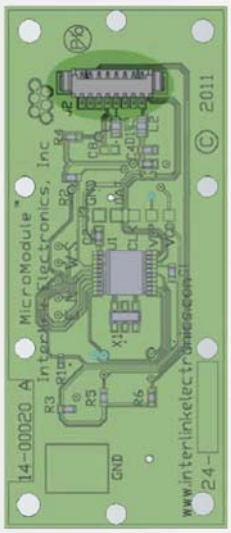
Device Characteristics

Keypad Options	Black finger disk, gray finger disk, black mini joystick, black finger disk fluorosilicone
Weight	15 grams or less
Operating Temperature Performance	Functional before, during, and after exposure to the below conditions
Cold Dry	-25°C <=5%RH for 96 hours
Cold Humid	10°C 95%RH for 96 hours
Hot Dry	70°C <=10%RH for 96 hours
Hot Humid	70°C 95%RH for 96 hours
Storage Temperature Performance	Functional after 96 hours of exposure to the below conditions
Cold Dry	-40°C <=5%RH
Hot Dry	85°C <=10%RH
Hot Humid	85°C 95%RH
Thermal Shock	Functional after 20 cycles of -40°C to 85°C with a 30 minute dwell time and 5 minute transitions
Finger Disk Lifetime Durability	>3.5 million actuations with 500g at 4Hz
Keypad Lifetime Durability	>1 million cycles with 500g at 4Hz
Drop Test	Dropped from 1 meter onto concrete on all six sides
Mechanical Shock	Comparable to MIL-STD-202, 80G accelerated in 11 msec
Mechanical Vibration	Comparable to MIL-STD-202, Method 204, Condition A
Chemical Resistance	Keypad surface resistance to most common cleaners and spills for 24 hours. These include: Water, soap, bleach, alcohol, ammonia NH_4OH based window cleaner, acetic acid CH_3COOH based cleaner, cola, coffee with sugar and creamer. Robust MicroModule with Fluorosilicone keypad is also resistant to a variety of oils, fuels, and solvents.
UL	All materials UL grade 94 V-1 or better
RoHS	Compliant

Connector Options

Header
The connector for the MicroModule is a wire to board header connector.
The header is a Molex # 53261-0871.

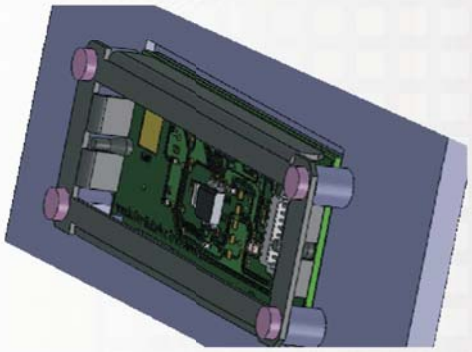
Header Wire and Cable Options
- USB Type A, PN 14-00054
- USB Type A with Strain Relief, PN 14-00108
- 12” Wire Cable Harness, PN 14-16576



Application Information

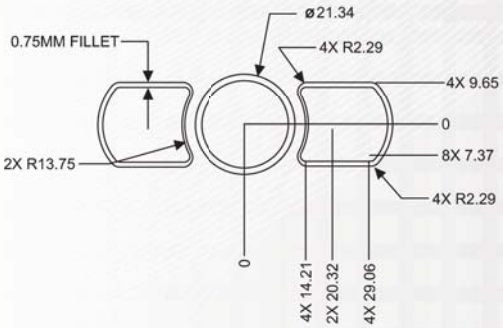
Mounting

Can be fitted into various assemblies to meet specific demands for user control locations.

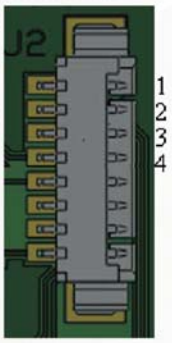


Mounting, Panel Cutout

See the Integration Guide for more detailed mounting recommendations.



Pin Out



J2 Pin	Signal	Signal Description
1	VCC	+5v
2	D+	D+
3	D-	D-
4	GND	Ground

For more information consult the Integration guide found on our website:
www.interlinkelectronics.com/support

Orderable Part Numbers

Hardware Development Kit, 54-00028

This hardware development kit includes:

- MicroModule Demo (Black Finger Disk) w/USB Cable (Qty.1)
- USB MicroModule w/Mini Joystick (Qty. 1)
- Gray Finger Disk Keypad (Qty. 1)
- 12" Wire Cable Harness (Qty. 1)
- USB Cable Assembly (Qty. 1)
- USB Flash drive w/product literature (Qty. 1)

USB MicroModule w/Black Finger Disk 54-00002

USB MicroModule w/Gray Finger Disk 54-00023

USB MicroModule w/Mini Joystick 54-00011

USB MicroModule w/Black Finger Disk (Fluorosilicone) 54-00046

12" Wire Cable Harness, 14-16576

USB Cable Assembly 14-00054

USB Cable Assembly w/Strain Relief, 14-00108

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Mechanical Data

