



The MIIC-101 Bus Monitor is a Stand-Alone and Remote Troubleshooting Tool for the I2C (Inter Integrated Circuit) serial bus developed by Philips Semiconductor, or the System Management Bus (SMBus) developed by Intel, and other derived protocols.

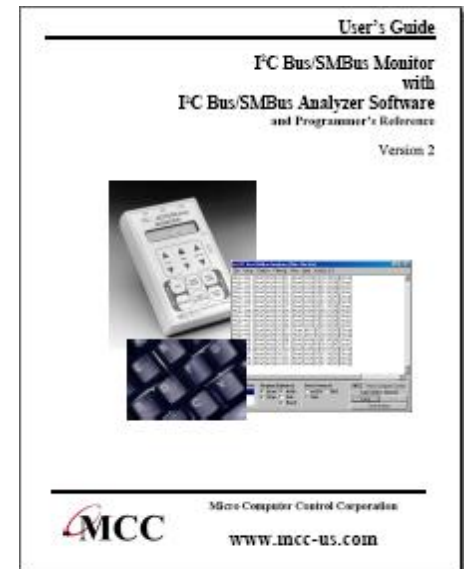
When connected to an I2C Bus, or SMBus network, the MIIC-101 Bus Monitor can collect, display or upload information on all bus activity.

PRODUCT HIGHLIGHTS

- Stand Alone or Remote I2C Bus, and SMBus Troubleshooting Tool.
- Real Time Trace to 100 kbit/s.
- Supports General Calls, and Multi-Master/Multi-Slave Addressing.
- Displays Start/Stop Events, Device Addresses, Read/Write Requests, Acknowledgements, and Data.
- Optional **I2C Analyzer Software Package**.

KEY FEATURES

- I2C and SMBus Compatible.
- Operating Modes include: Line Status, Forward/Backward Trace, View and Remote.
- Monitor ALL or SELECTED Bus Address.
- Stores up to 2700 messages Stand-alone. Unlimited storage in Remote Mode.
- Real-Time Trace to 100Kbit/s.
- Supports General Calls, and 7 bit Addressing.
- Displays Start/Stop Events, Device Addresses, Read/Write Requests.
- Built-in Alphanumeric Display and Keypad supports Byte, Message and Buffer Scrolling for stand-alone handheld portable operation.
- Optional Windows-based **I2C Analyzer Software Package** lets you see message traffic on your PC's screen, provides extended message filtering, and can record messages to disk.
- Powered by internal Battery, external Supply, or Bus Power.
- Compatible with 3.3v to 5v.



TYPICAL APPLICATIONS

- Development: Software/Hardware Troubleshooting.
- Manufacturing: Testing and Debugging, Quality Control.
- Field Service: Field diagnosis, Repair Service, Verification.

PRODUCT SPECIFICATIONS

MIIC-101

I/O PORTS

I2C Bus/SMBus

A test cable provides connection to the network under test. Test clips are provided for:

SCL Clock Line
GND Ground Line
SDA Data Line
+5 External Supply

RS 232 Port

An RS-232 port connector and cable provides connection to PC Host system.

ADDRESS SELECTION

Bus activity can be monitored on a selective or non selective basis. Messages to all or a specified bus address can be captured in the trace buffer.

OPERATING MODES

View Status Mode

In View Status Mode, the unit displays bus line levels. Displayed information includes:

A..bV	+5v
SCL	I2C Clock
SDA	I2C Data
TRIG	Trigger

Forward Trace Mode

Forward Trace collects a trace of up to 2700 bus messages with optional Pre Trigger.

Backward Trace Mode

Backward Trace maintains a trace of up to the last 2700 bus messages with optional Post Trigger.

View Mode

View Mode displays captured bus activity on the built-in display. Displayed information includes:

Start/Stop Events
Message and Byte Number
Destination Addresses
Read/Write Requests
Receiver Acknowledgements
Transmitted Data in Hex and ASCII

Both forward and reverse scrolling of captured data bytes or messages is supported.

Display syntax:

I2C Event	Display
Start of Buffer	-START OF TRACE-
Start Read w/Ack	MMMM:START AA RA
Data w/Ack	MMMM:NNN DD 'C'A
Stop Condition	MMMM:STOP
End of Buffer	--END OF TRACE--

where:

MMMM	Trace Message Number
NNN	Transaction Byte Number
AA	Device Address
DD	Data in Hexadecimal
C	Data in ASCII
R/W	Read/Write Request
N/A	Receiver Non/Acknowledgement

Optional Windows-based **I2C Analyzer Software Package** available.

POWER

Internal 9V battery, +5V bus power, or external power supply (included).

Included Parts List:

- I2C/SMBus Monitor. (#MIIC-101)
- I2C Bus Clip Lead Cable, 2 Ft. (#CABCL)
- I2C Interface Cable, 4 Ft. (#CAB4).
- External Trigger Cable, 1 Ft. (#AXM-12G)
- RS-232 Serial Cable, 7Ft. (#MEE-PS).
- DB-9 Serial Port Adapter Cable. (#C9F25M1)
- Global Power Supply. (#MWT-5VAG).
- User's Guide. (MIIC-101-UG.PDF)
- FREE Technical Support (via phone, fax, or email)

Optional Add-On Parts:

- I2C/SMBus Analyzer Software (#SMB-SW).
- I2C ESD and Over-current Protection Device (#IPROTX)
- I2C Low Voltage Level Translator (#IVOLT)
- I2C Interface Cable, 4, 8, 16 Ft. (#CAB4, CAB8, CAB16).
- 7 Port I2C Distribution Board. (#IP-202).