

# ECHELON Customer Support Alert

RE: RTR-10 CORE MODULE AND RTR-10 MOTHERBOARD CHANGES

DATE: JANUARY 1996

## SUMMARY

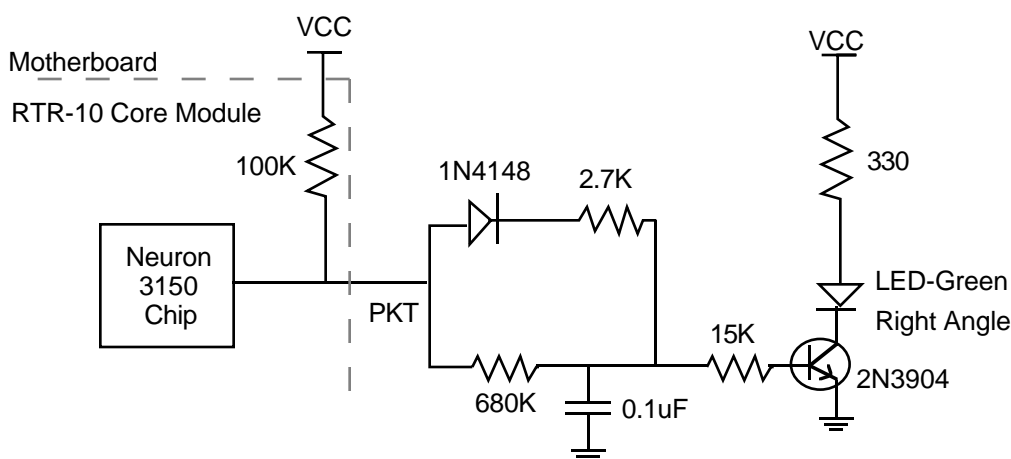
This alert announces a resistor change to the RTR-10 motherboard schematic (as suggested in Revision 3 of the *LONWORKS Router User's Guide*) and a resistor change to the RTR-10 Router Core Module.

These changes, both separately and together, fix a problem affecting a small percentage of router designs based on the RTR-10 module that do not correctly interpret the transceiver ID upon coming out of reset. In a few cases, the previously published pulse-stretching circuit associated with the PKT LED did not provide sufficient margin such that a logical high value is always greater than 2 volts at the Neuron® 3150® Chip.

These changes have been verified through experimentation and analysis to be backwards compatible (so that new RTR-10 modules will work better in the existing motherboard schematic and new motherboards will work better with the existing RTR-10 modules) and forwards compatible (so that a new motherboard and a new RTR-10 module also work).

## DESCRIPTION OF CHANGES

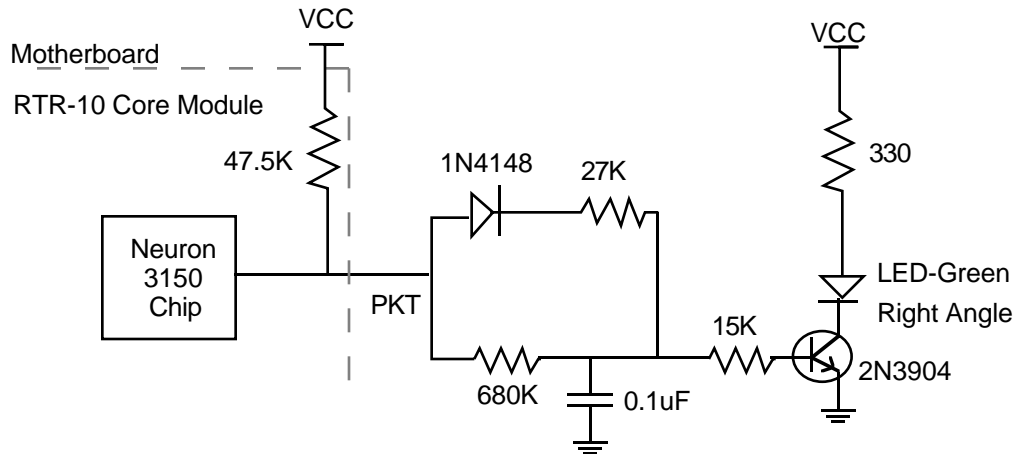
Below is the circuit as it exists using an RTR-10 module with engineering level 04 or below and the schematic from the *LONWORKS Router User's Guide*, Revision 3 or lower. (Note: the engineering level is incorporated in the manufacturing datecode as the last two digits. Thus, 9604F04 has an engineering level of 04.)



## LONWORKS Customer Support Alert

---

The two changes are: (1) on the motherboard schematic replace the 2.7K $\Omega$  resistor with a 27K $\Omega$  resistor (or greater); and (2) on the RTR-10 module replace the 100K $\Omega$  resistor with a 47.5K $\Omega$  resistor. When both changes are made, the new implementation will have the following circuitry:



New Echelon builds of the RTR-10 module (with change (2) above) will have engineering level 05.

Note: While the change to the RTR-10 module is sufficient to allow the proper interpretation of the transceiver ID with the old motherboard design, Echelon recommends that all new builds of RTR-10 motherboards incorporate the suggested resistor value change.

---

Part Number 005-0125-01 Rev A

© 1996 Echelon Corporation. Echelon, LON, Neuron, LonManager, LonBuilder, LonTalk, LONWORKS, 3120 and 3150 are U.S. registered trademarks of Echelon Corporation. LonSupport, LONMARK, and LonMaker are trademarks of Echelon Corporation. Other names may be trademarks of their respective companies. Some of the LONWORKS tools are subject to certain Terms and Conditions. For a complete explanation of these Terms and Conditions, please call 1-800-258-4LON or +1-415-855-7400

Echelon Corporation  
4015 Miranda Avenue  
Palo Alto, CA 94304  
Telephone (415) 855-7400  
Fax (415) 856-6153

Echelon Europe Ltd  
Elsinore House  
77 Fulham Palace Road  
London W6 8JA  
England  
Telephone +44-181-324-1800  
Fax +44-181-563-7055

Echelon Japan K.K.  
Kamino Shoji Bldg. 8F  
25-13 Higashi-Gotanda 1-chome  
Shinagawa-ku, Tokyo 141  
Telephone (03) 3440-7781  
Fax (03) 3440-7782