



**King Leung International Ltd.**

**英皇國際有限公司**

Unit 3 & 4, 13/F., World-Wide Ind. Centre,  
43-47 Shan Mei Street, Fo Tan, N.T., Hong Kong.  
Tel: (852) 2609 3698 Fax: (852) 2609 3728

## **Changes of Friend.Link from last approval**

The modifications of final product of Friend.Link from the last approval are:

1. Transmission circuitry
2. Receive circuitry
3. PCB layout
4. Antenna shape

### **Descriptions:**

1. Transmission circuitry is redesigned, as a result the bandwidth of fundamental frequency is reduced and power of harmonics are lowered. The modification involves re-layout the PCB, changes of component values and connection of components. The transmission coding, method and circuit type are not changed. Please refer to the new circuit diagram for the modifications.
2. Receive circuitry is redesigned to improve sensitivity, bandwidth and power of leakage from the receiver are reduced. The modification involves re-layout the PCB, changes of component values, add and remove some components and connection of components. The receiving circuit type is not changed. Please refer to the new circuit diagram for the modifications.
3. As circuitry is changed, PCB layout is different. A new PCB layout drawing is attached.
4. The transmission antenna was a circle located on PCB surface, in order to give better transmission to all directions, the transmission antenna becomes a flat metal wire vertically inserted on PCB.

## CHANGE DESCRIPTION

Company Name: YONG LUNG INTL LTD. Model No.: FRIEND LINKOrder No.: ETLDate: April 12, 1999

Components	Old Application	This Application	Function Description
Inductor L1	2.2 $\mu$ H	1.0 $\mu$ H	Tx unit
E. Cap C12	47 $\mu$ F	DEL	Tx unit
C. Cap C22	NIL	10 PF	Tx UNIT
Resistor R3	390 $\Omega$	DEL	Tx unit
Resistor R4	NIL	330 $\Omega$	Tx unit
Resistor R21	NIL	330 $\Omega$	Tx unit
Diode D1	Connect to Q1 Emitter pin	Connect to Q1 Collector pin	Tx unit
C. Cap C8	33 PF	DEL	Rx unit
C. Cap C9	102	DEL	Rx unit
C. Cap C15	0.5 PF	DEL	Rx unit

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# CHANGE DESCRIPTION

Company Name: YING LUNG INT'L LTD. Model No.: FRIEND LINK

Order No.: ETL

Date: April 12, 1987

Components	Old Application	This Application	Function Description
C. Cap C6	NIL	330 PF	RX UNIT
C. Cap C11	NIL	470 PF	RX UNIT
Resistor R16	47 Kohm	DEL	RX UNIT
Transistor Q2	SS9014	DEL	RX UNIT

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