



## **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 circuitrys are 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: YANG ZUNTA INT'L LTD. Model No.: FRIEND LINKOrder No.: ETLDate: April 12, 1998

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

P.A. (kenneth)chg\_des

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## CHANGE DESCRIPTION

Company Name: YMB LEUNG INT'L LTD. Model No: FRIEND LINKOrder No.: ETLDate: April 12, 1997

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	22L	Rx unit
Transistor Q2	SS9014	22L	Rx unit

P.A. /kenneth/chg\_des

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