

## INTEGRATED GIGABIT TRANSFORMER

### General Description

NLXF01G1 is a patented device that implement Transformer by patented circuit. It minimizes design effort and components needed for Ethernet application. Its pin out is compatible with traditional Transformer such as Bothhand GST5009, that makes it possible to reserve traditional design without any impact.

### Features

- ◆ Gigabit Ethernet application
- ◆ Small form factor

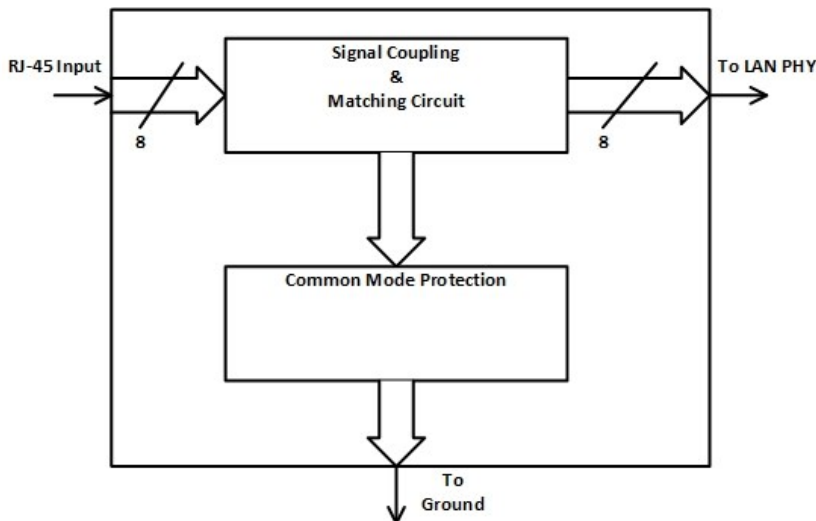


Fig.1 Block Diagram

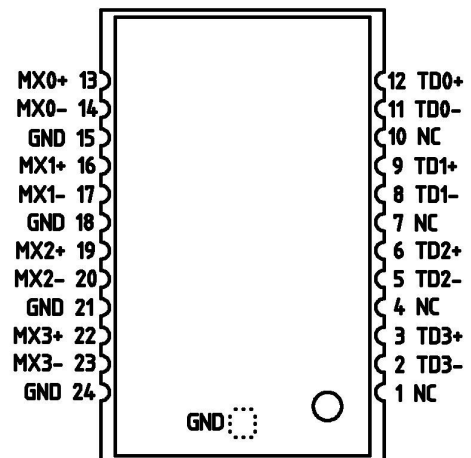


Fig.2 Pin Configuration

## DEVICE CHARACTERISTICS

ABSOLUTE MAXIMUM			
Parameter	Symbol	Value	Units
Surge Rating CM (10/700us)	V <sub>PPC</sub>	N/A	KV
Surge Rating DM (10/700us)	V <sub>PPD</sub>	N/A	KV
Operation Temperature	T <sub>J</sub>	0~85	°C
Storage Temperature	T <sub>S</sub>	0~85	°C
Soldering Temperature	T <sub>D</sub>	260 (10s)	°C

TRANSFER CHARACTERISTICS							
Part Number	Insertion Loss	Return Loss			CMRR		
		30MHz (dB Min)	60MHz (dB Min)	100MHz (dB Min)	30MHz (dB Min)	60MHz (dB Min)	100MHz (dB Min)
NLXF01G1-N	1~100MHz (dB Max)						
	-1	-20	-15	-10	-25	-25	-25

ORDERING INFORMATION				
Series Number	Type Code	Data Rate	Model Code	Alternative Code
NLXF	01	G	1	N

## TYPICAL APPLICATION

### Application Description

NLXF01G1 is designed to work with most PHY chip on the market, except few legacy type which required external pull high. It doesn't need external Bob Smith circuit and PHY side capacitors. While using this part to replace traditional transformer, no need to change layout, just short Bob Smith circuit by  $0\Omega$  resistors, and remove PHY side capacitors.

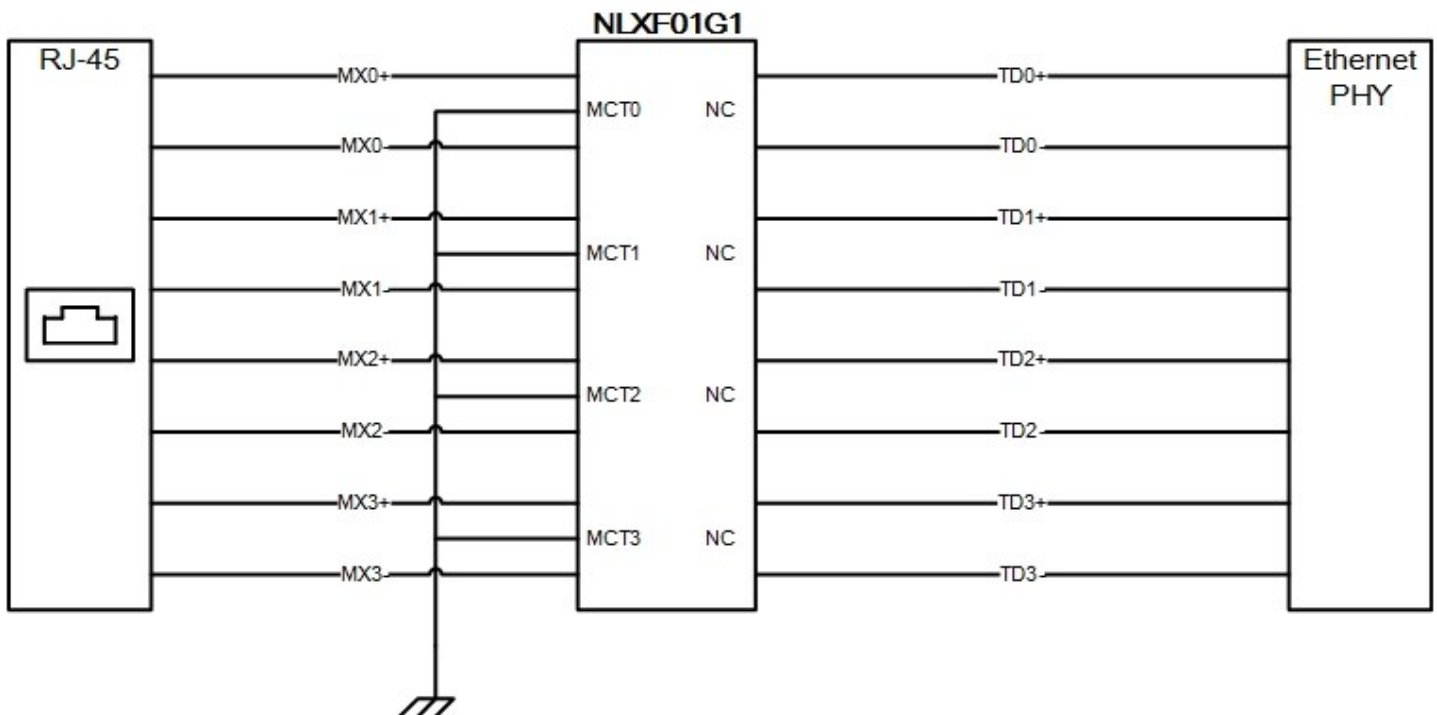
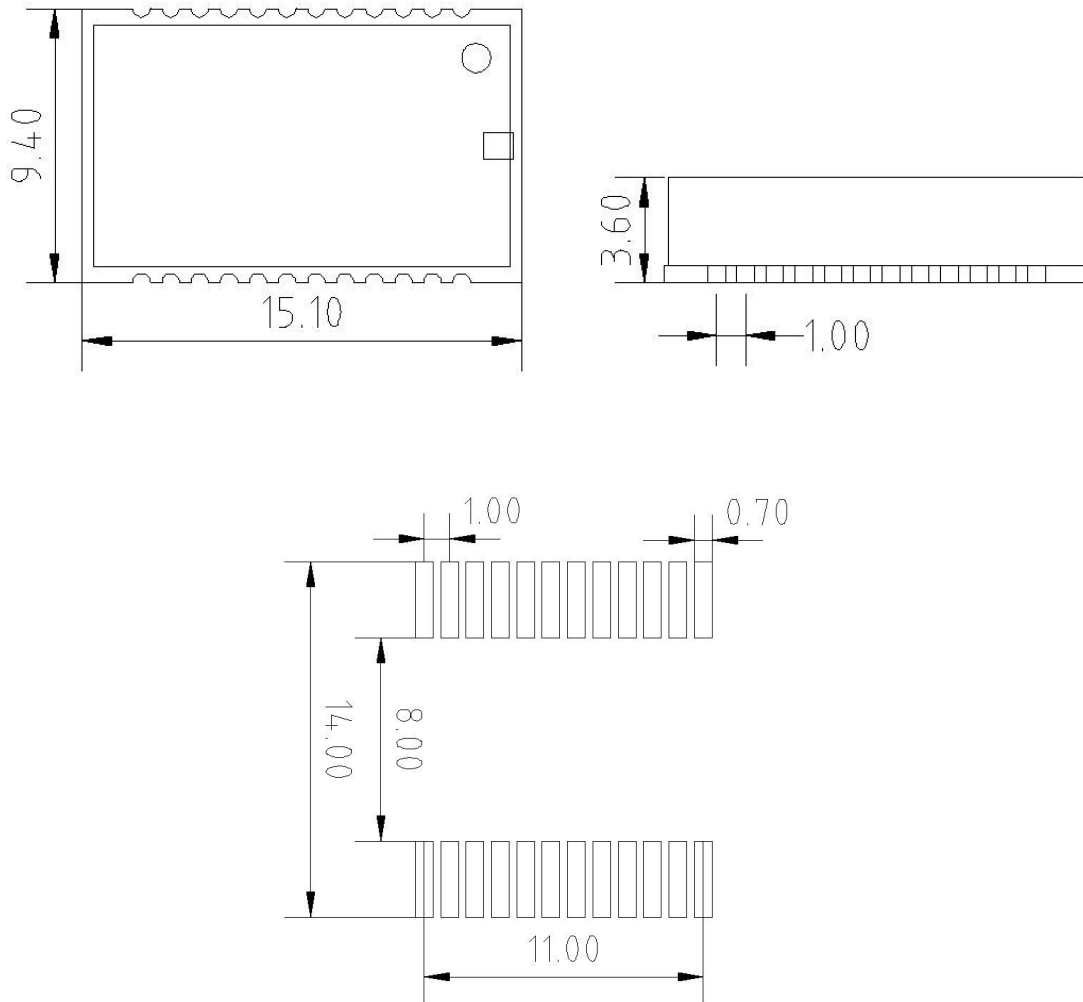


Fig.4 Typical Application

## DEVICE OUTLINE

Dimension :  $\pm 0.1$  mm



Revision History	Modification Description
Rev.1.0	Initial Release