



中山市聯達利電子有限公司

LTL ELECTRONICS CO., LTD

Products Catalog

公司簡介

Company Introduction

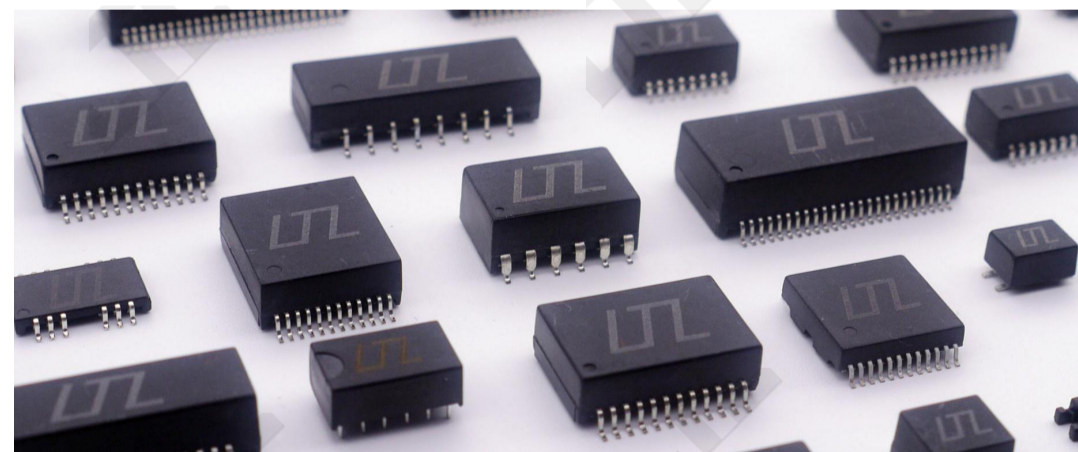
聯達利電子有限公司成立於1995年，占地面積8000多平方米，擁有員工500多人其中工程人員有20多人，是一間以科技為導向的電子產品製造廠家，也是多個國內外知名品牌加工廠。主要業務為開發、設計、製造“**LTL**”品牌的網絡變壓器，通訊變壓器，濾波器，電感器，共模，DC/DC隔離電源等，廣泛用於網卡、交換機、路由器、機頂盒、服務器主板、T1/E1、ISDN,ADSL工控醫療儀器等科技領域。公司擁有先進的技術、設備，豐富的生產管理經驗和廣泛的分銷網路，並於2017年8月通過IS9001：2015版國際品質體系認證。

“品質至上，顧客滿意”是我們的企業宗旨，“追求卓越”是我們的工作精神。公司通過運用先進的技術創造種類繁多之創新優質的產品迎合市場需求。

LTL Electronic Co Ltd was founded in 1995, covers an area of more than 8000 meters

square. It is not only a technology oriented electronic product manufacturers, but also a number of domestic and foreign well-known brands processing factory. The main business of LTL Electronic is to develop, design,

manufacture “**LTL**” brand of DC/DC isolated power supply, filter, network communication transformer. LTL Electronic is an expert in combining its advanced technology, equipment, and rich production management experience with a wide range of distribution network.



質量認證

Quality Certification

ISO 9001 : 2015



Customer Base

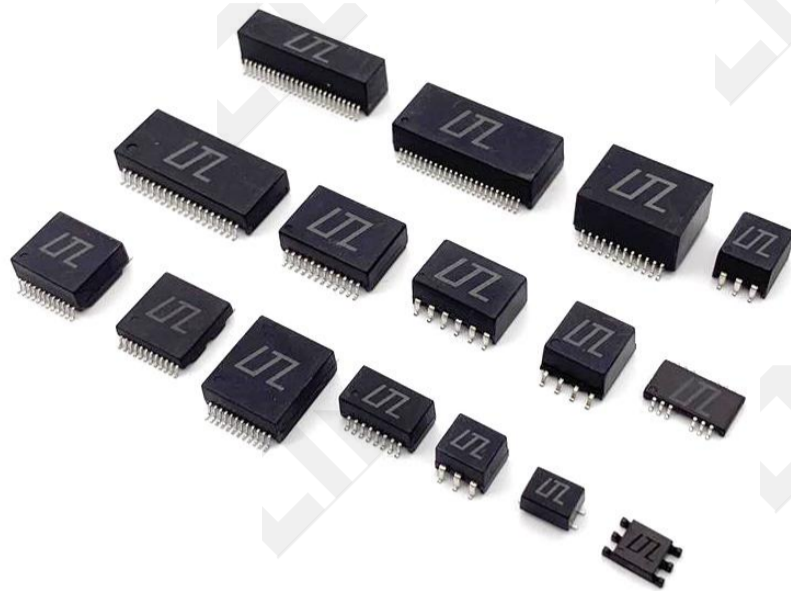
榮譽客戶



聯達利主營產品
LTL Brand Products

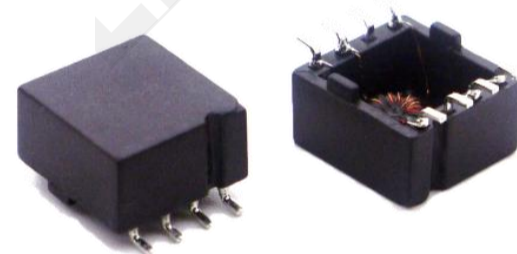
LAN Transformer

- ◆ LTL網絡變壓器產品符合IEEE802.3標準和符合国际RoHS2.0标准，類型覆蓋 * 10/100 Base-T * 1000 Base-T * 2.5G Base-T * 10G Base-T等多種型號。
- ◆ LTL LAN transformers meet IEEE802.3 standard, & RoHS Compliant * 10/100 Base-T * 1000 Base-T * 2.5G Base-T * 10G Base-T
- ◆ 適用領域：交換機，服務器主板，转换器，等。
- ◆ Used Range: Adapter cards, Convertors, Compute motherboards.



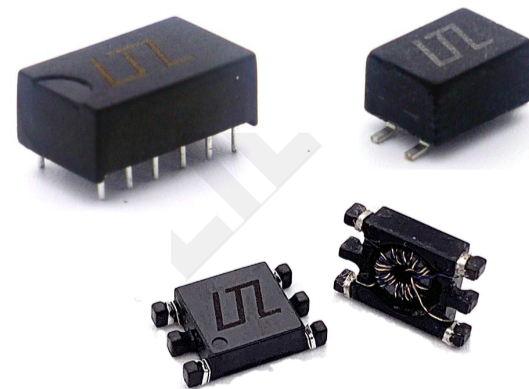
Telecom Transformers

- ◆ LTL通讯变压器符合RoHS标准。我们独特的模块可防止干扰，适用于T1、E1、CEPT、PRI ISDN（通讯）设备。
- ◆ LTL Telecom Transformer is RoHS compliant. Our unique modules are protected from interference, and suitable for T1, E1, CEPT, PRI ISDN (Telecom) devices.



Common Mode Choke

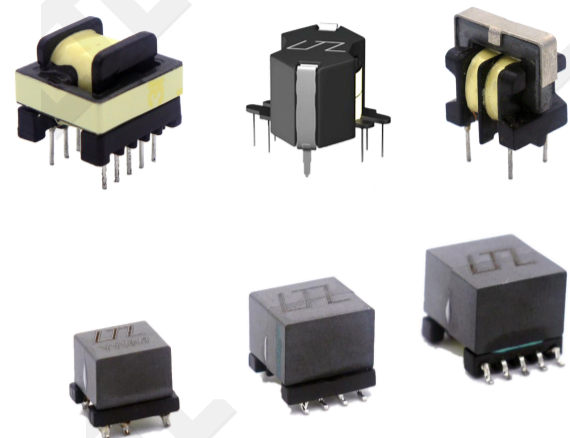
- ◆ LTL共模扼流圈符合国际RoHS2.0标准，该模块在不干扰任何通过信号的情况下有效抑制高频噪声。
- ◆ Common Mode Choke is RoHS compliant, and the module is effective in high frequency noise suppression without interfering any passing signal.



聯達利主營產品 LTL Brand Products

High Frequency Transformers

- ◆ LTL高频变压器产品类型有：RM、EE、EP、ER、EI EF EFD等。
- ◆ LTL High Frequency Transformers products have types such as: RM, EE, EP, ER, EI EF EFD etc..
- ◆ 適用領域：移动和数字设备电池充电器、电源适配器、LED照明的启动电源等。
- ◆ They apply for mobile and digital equipment battery charger, power adapter, start power source of LED illumination.



Power Transformers

- ◆ LTL电源类变压器产品类型有：RM、EE、EP、ER、EI EF EFD等。。
- ◆ LTL Power Transformers products have types such as: RM, EE, EP, ER, EI EF EFD etc..
- ◆ 適用領域：移动和数字设备电池充电器、电源适配器、LED照明的启动电源等。
- ◆ They apply for mobile and digital equipment battery charger, power adapter, start power source of LED illumination.

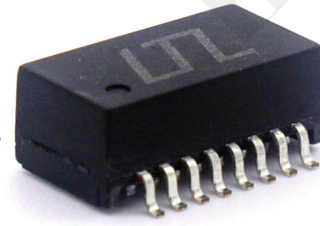


Inductor

- ◆ LTL电感器产品。
- ◆ LTL Inductor products .
- ◆ 適用領域：移动和数字设备电池充电器、电源适配器、LED照明的启动电源等。
- ◆ They apply for mobile and digital equipment battery charger, power adapter, start power source of LED illumination.



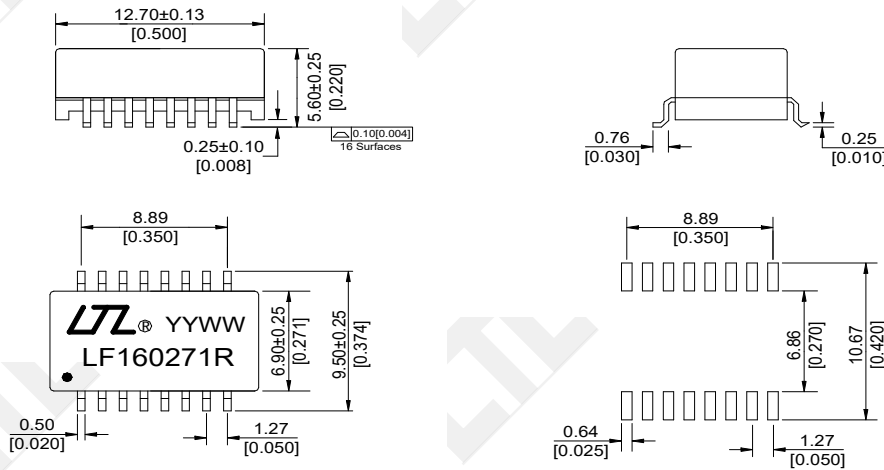
- . Isolation transformers for 10GBase-T and application for Adapter Cards, Hubs and Motherboards
- . Minimum interwinding breakdown voltage of 1500 Vrms
- . RoHs peak IR reflow temperature at 245°C



Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

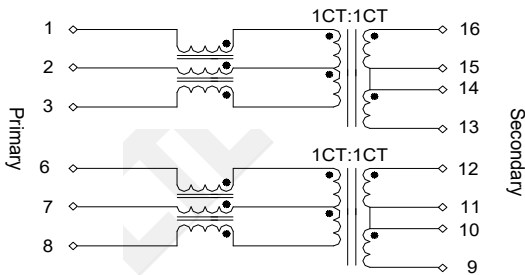
Part Number: LF160271R

Mechanicals:



Suggest PCB layout foot print

Schematics:

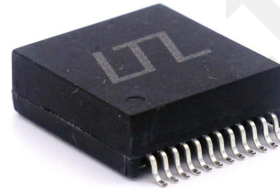


Turns Ratio: (1-3):(16-13)= 1:1+/-2%
Turns Ratio: (6-8):(12-9)= 1:1+/-2%
Isolation Voltage: 1500 Vrms
OCL: 120uH Min @100KHz, 100mV
DCR: 0.2 Ohm Max 1/2 winding
DC Current: 620mA per pair

Insertion Loss(SDD21)	MHz	0.3-250		400			
	dB Max	-1.0		-2.0			
Return Loss(SDD11)	MHz	1	2	100	250	400	500
	dB Min	-23	-25	-25	-16	-10	-7
Return Loss(SDD22)	MHz	1	40	150	250	400	500
	dB Min	-23	-23	-17	-15	-12	-9
Crosstalk(SDD21)	MHz	1-100		100-500			
	dB Min	-40		-30			
Common Mode Rejection (SCC21)	MHz	1	100	300	500		
	dB Min	-37	-25	-23	-23		
Common to Differential Rejection (SDC12)	MHz	1	100	300	500		
	dB Min	-40	-30	-25	-25		

DC Current: 620mA per pair

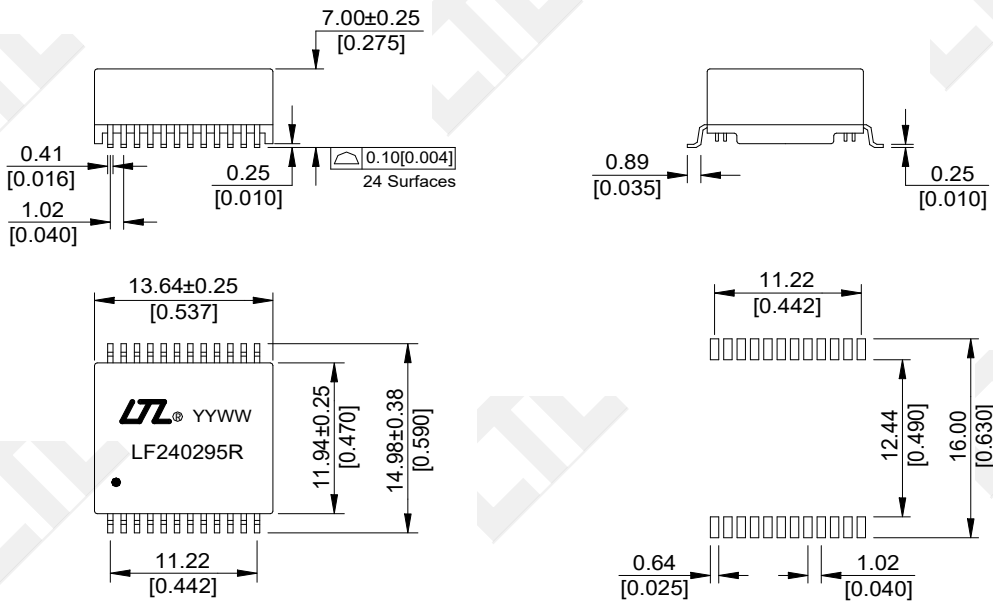
- Isolation transformers for 10GBase-T and application for Adapter Cards, Hubs and Motherboards
- Minimum interwinding breakdown voltage of 1500 Vrms
- RoHs peak IR reflow temperature at 245°C



Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

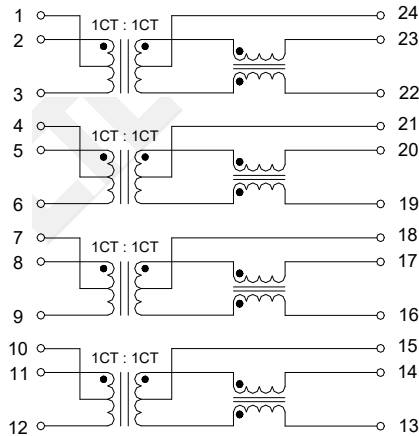
Part Number: LF240295R

Mechanicals:



Suggest PCB layout foot print

Schematics:



Turns Ratio: (1-3):(16-13)= 1:1+/-2%
 Turns Ratio: (6-8):(12-9)= 1:1+/-2%
 Isolation Voltage: 1500 Vrms
 OCL: 120uH Min @100KHz, 100mV
 DCR: 0.2 Ohm Max 1/2 winding
 DC Current: 620mA per pair

Insertion Loss(SDD21)	MHz	0.3-250	400
	dB Max	-1.0	-2.0

Return Loss(SDD11)	MHz	1	2	100	250	400	500
	dB Min	-23	-25	-25	-16	-10	-7

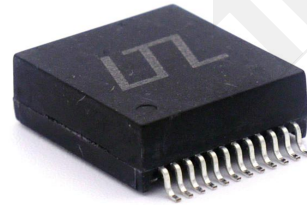
Return Loss(SDD22)	MHz	1	40	150	250	400	500
	dB Min	-23	-23	-17	-15	-12	-9

Crosstalk(SDD21)	MHz	1-100	100-500
	dB Min	-40	-30

Common Mode Rejection (SCC21)	MHz	1	100	300	500
	dB Min	-37	-25	-23	-23

Common to Differential Rejection (SDC12)	MHz	1	100	300	500
	dB Min	-40	-30	-25	-25

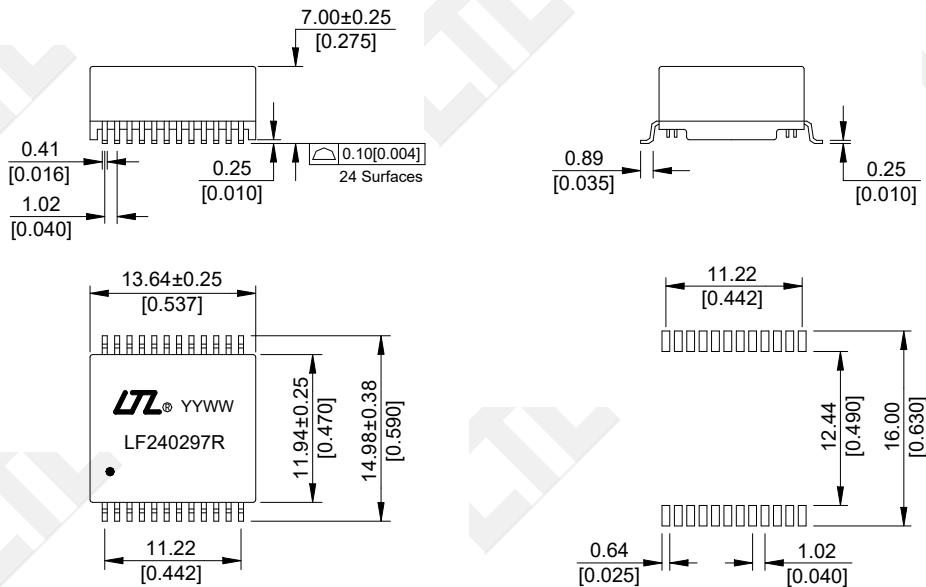
- Isolation transformers for 10GBase-T and application for Adapter Cards, Hubs and Motherboards
- Minimum interwinding breakdown voltage of 1500 Vrms
- RoHs peak IR reflow temperature at 245°C



Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

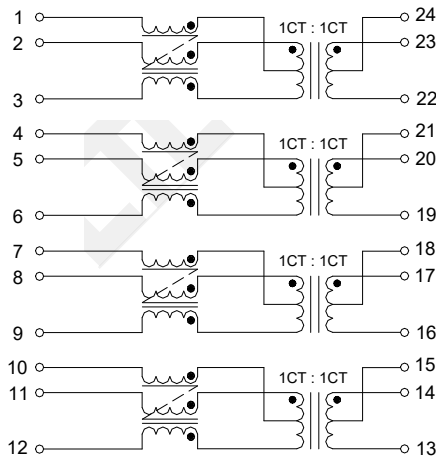
Part Number: LF240297R

Mechanicals:



Suggest PCB layout foot print

Schematics:



Turns Ratio: (1-3):(16-13)= 1:1+/-2%

Turns Ratio: (6-8):(12-9)= 1:1+/-2%

Isolation Voltage: 1500 Vrms

OCL: 120uH Min @100KHz, 100mV

DCR: 0.2 Ohm Max 1/2 winding

DC Current: 620mA per pair

Insertion Loss(SDD21)	MHz	0.3-250	400
	dB Max	-1.0	-2.0

Return Loss(SDD11)	MHz	1	2	100	250	400	500
	dB Min	-23	-25	-25	-16	-10	-7

Return Loss(SDD22)	MHz	1	40	150	250	400	500
	dB Min	-23	-23	-17	-15	-12	-9

Crosstalk(SDD21)	MHz	1-100	100-500
	dB Min	-40	-30






Common Mode Rejection (SCC21)	MHz	1	100	300	500
	dB Min	-37	-25	-23	-23

Common to Differential Rejection (SDC12)	MHz	1	100	300	500
	dB Min	-40	-30	-25	-25

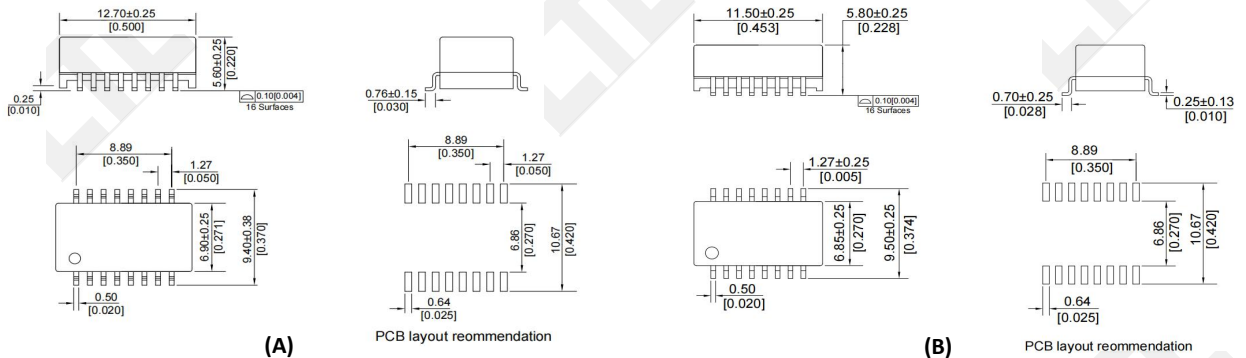
- . Isolation transformers for 10/100Base-T and application for Adapter Cards, Hubs and Motherboards
- . Designed to meet IEEE802.3 standards including 350μH OCL with 8mA DC bias
- . Minimum interwinding breakdown voltage of 1500 Vrms
- . RoHs peak IR reflow temperature at 245°C



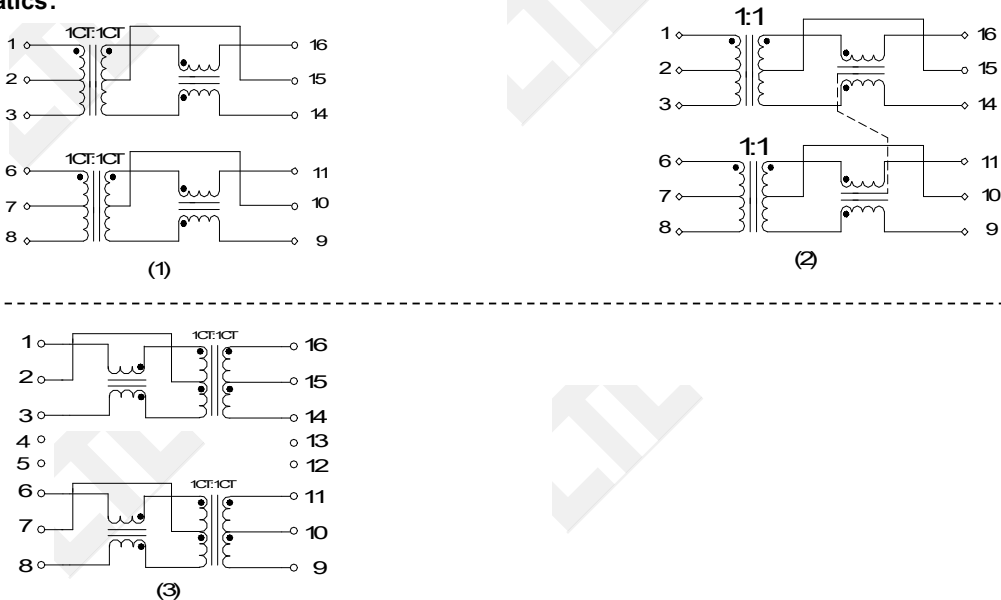
Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	30MHz	60MHz				
 LF160109R	1:1	1:1	-1.0	-18	-14	-12	-33	-	-33	A(1)
 LF160120R	1:1	1:1	-1.0	-18	-14	-12	-33	-	-33	A(2)
 LF160136R	1:1	1:1	-1.0	-18	-14	-12	-33	-	-33	B(2)
 LF160137R	1:1	1:1	-1.0	-18	-14	-12	-33	-	-33	A(3)
 LF160142R	1:1	1:1	-1.0	-18	-14	-12	-33	-	-33	A(1)

Mechanicals:

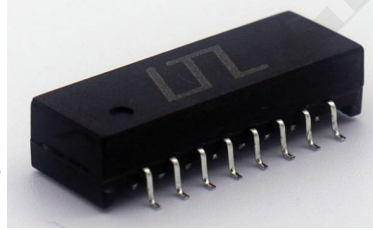


Schematics:





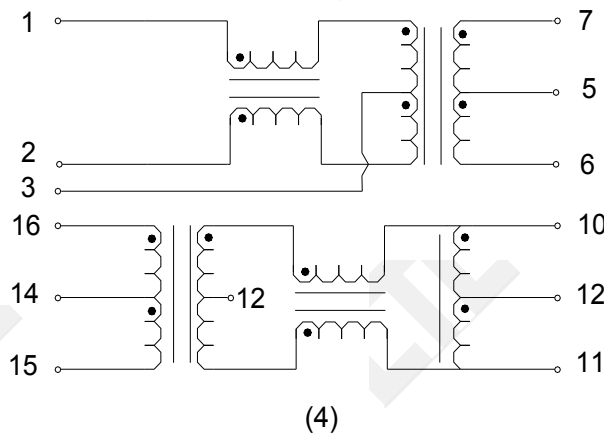
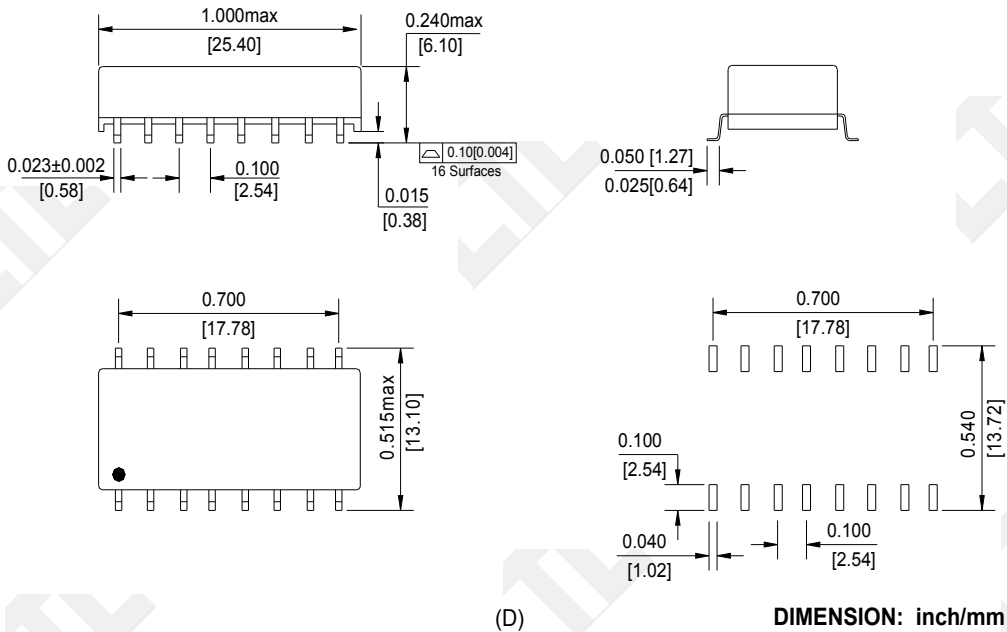
- Isolation transformers for 10/100Base-T and application for Adapter Cards, Hubs and Motherboards
- Designed to meet IEEE802.3 standards including 350μH OCL with 8mA DC bias
- Minimum interwinding breakdown voltage of 1500 Vrms
- RoHs peak IR reflow temperature at 245°C



Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

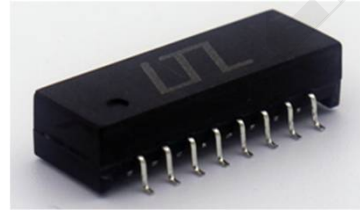
Part Number	Turns Ratio(± 3%)		Insertion Loss (db Max)	Return Loss(db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	30MHz	60MHz				
LF160108R	1:1	1:1	-1.1	-18.5	-14	-12	-30	-	-40typ	D/(4)

Mechanicals:





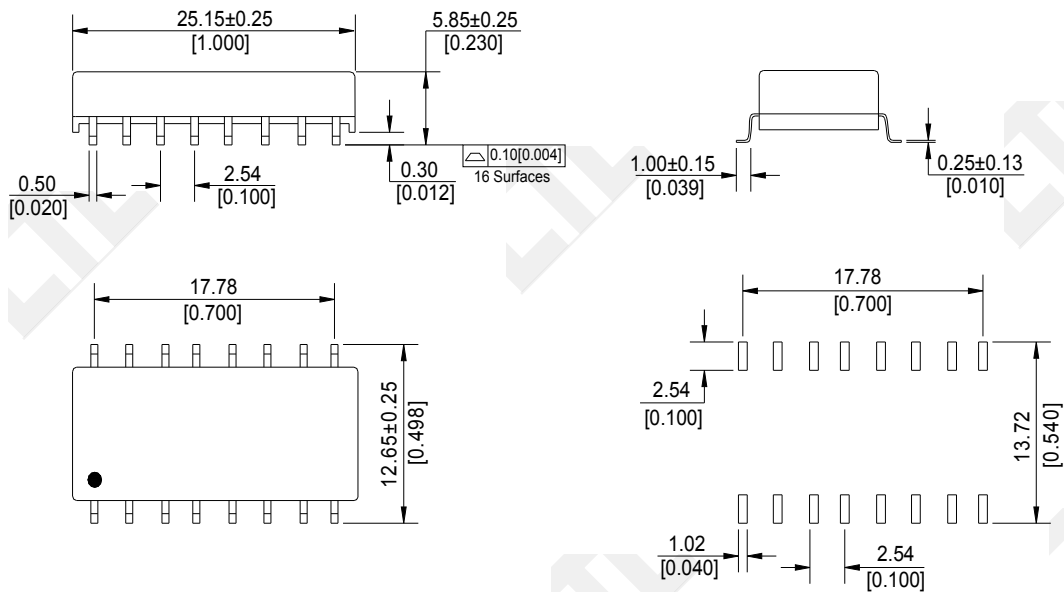
- Isolation transformers for 10/100Base-T and application for Adapter Cards, Hubs and Motherboards
- Designed to meet IEEE802.3 standards including 350μH OCL with 8mA DC bias
- Minimum interwinding breakdown voltage of 1500 Vrms
- RoHs peak IR reflow temperature at 245°C



Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

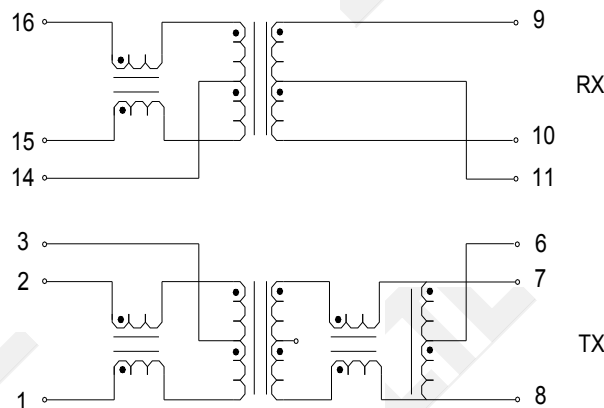
Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	30MHz	60MHz				
LF160143R	1:1	1:1	-1.1	-18	-14.5	-12	-	-30	-33	E/(5)

Mechanicals:



(E)

DIMENSION: mm[inch]











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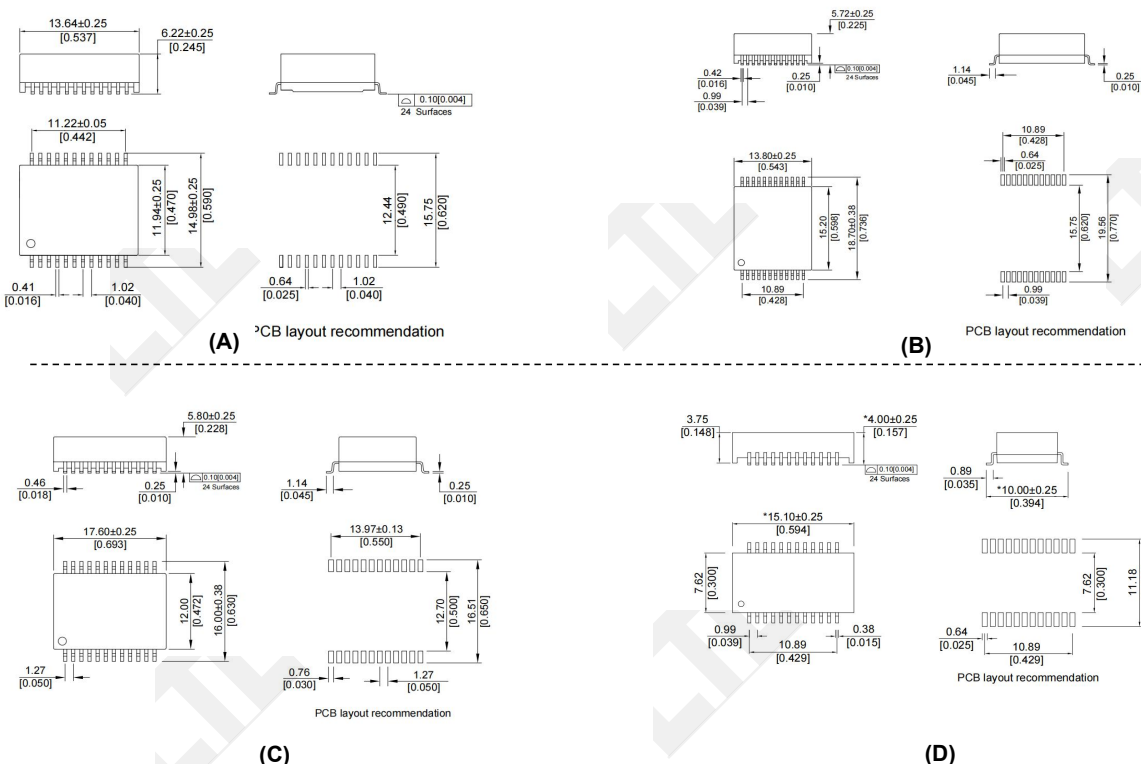
- Isolation transformers for 10/100/1000Base-T and application for Adapter Cards, Hubs, Motherboards and Router.
- Designed to meet IEEE802.3 standards including 350μH OCL with 8mA DC bias
- Minimum interwinding breakdown voltage of 1500 Vrms
- RoHs peak IR reflow temperature at 245°C



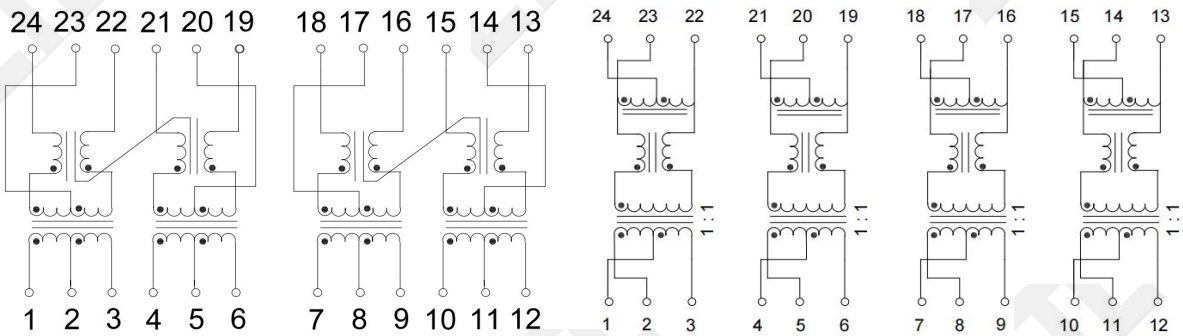
Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	0.3-30MHz	50MHz				
 LF240110R	1CT:1CT	1CT:1CT	-1.2	-16	-13	-12	-33	-	-31	A/(1)
 LF240111R	1:1	1:1	-1.0	-18	-16	-12	-33	-	-33	B/(2)
 LF240112R	1CT:1CT	1CT:1CT	-1.0	-18	-14	-12	-33	-33	-31	C/(3)
 LF240113R	1CT:1CT	1CT:1CT	-1.0	-18	-14	-12	-33	-	-33	C/(2)
 LF240114R	1CT:1CT	1CT:1CT	-1.0	-18	-16	-12	-33	-	-33	C/(4)
 LF240067R	1CT:1CT	1CT:1CT	-1.2	-18	-14	-12	-33	-	-33	A/(5)
 LF240330R	1CT:1CT	1CT:1CT	-1.0	-18	-16	-12	-33	-	-33	B/(4)
 LF240416R	1CT:1CT	1CT:1CT	-1.2	-18	-14	-12	-33	-	-33	D/(6)

Mechanicals:

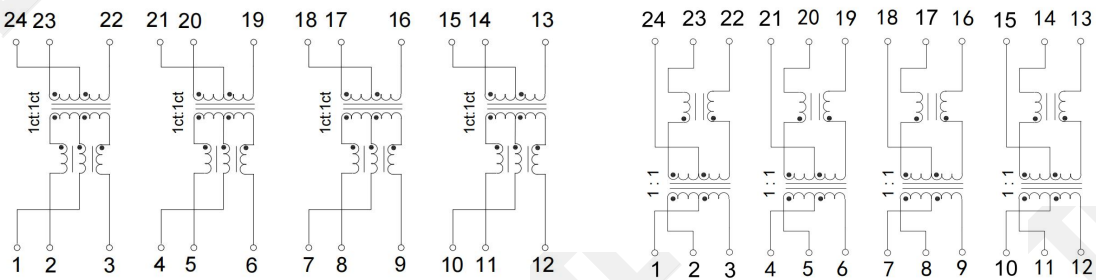


Schematics:



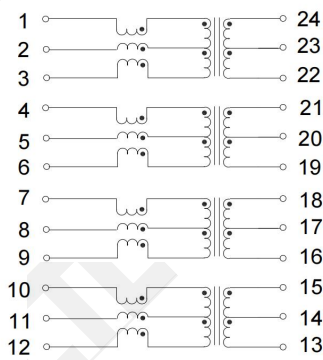
(1)

(2)

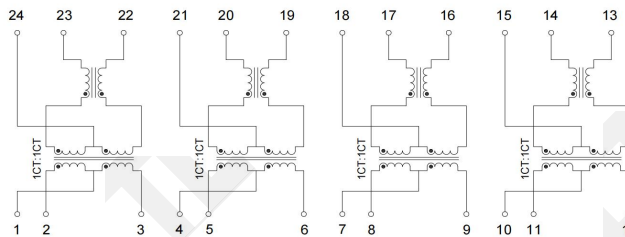


(3)

(4)



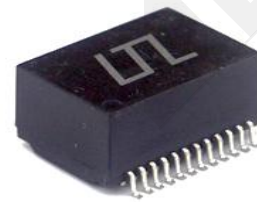
(5)



(6)



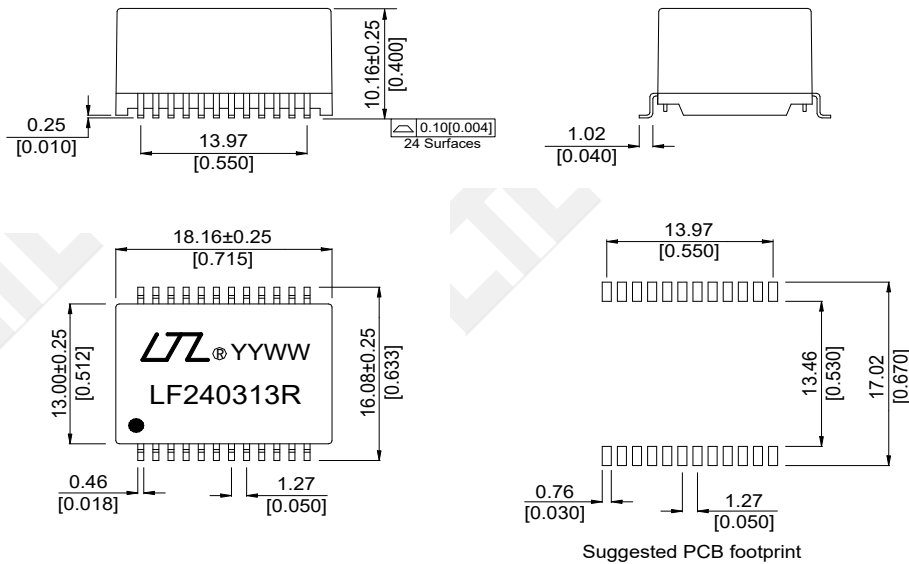
- . Isolation transformers for 10/100/1000Base-T and application for Adapter Cards, Hubs and Motherboards
- . Designed to meet 350μH OCL with 25mA DC bias
- . Over 2 pair 850mA at 57V continuous,48W.
- . Minimum interwinding breakdown voltage of 1500 Vrms
- . RoHs to meet IR reflow temperature at 245°C



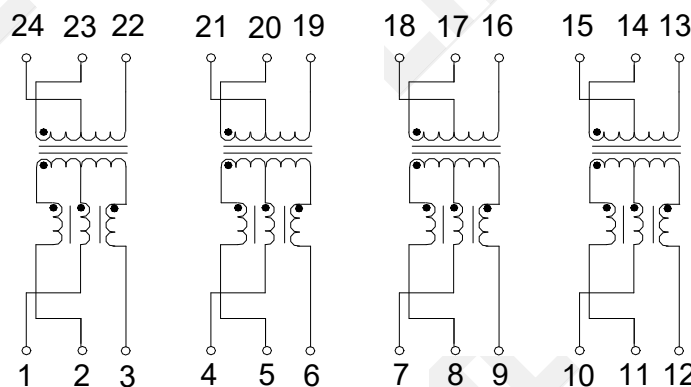
Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	1-30MHz	50MHz				
LF240313R	1CT:1CT	1CT:1CT	-1.4	-18	-14	-10	-33	-	-33	-

Machenicals

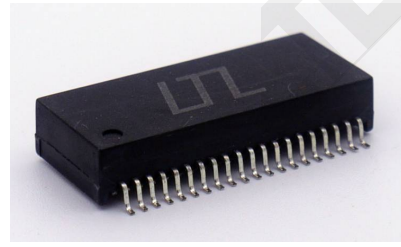


Schematics





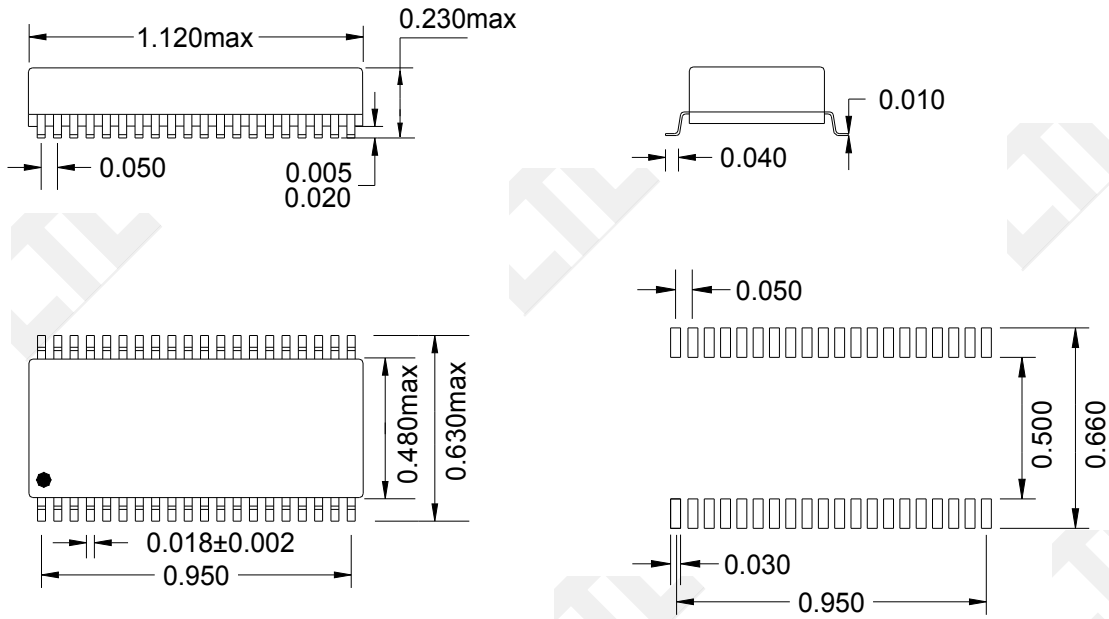
- . Isolation transformers for 10/100Base-T and application for Adapter Cards, Hubs and Motherboards
- . Designed to meet IEEE802.3 standards including 350μH OCL with 8mA DC bias
- . Minimum interwinding breakdown voltage of 1500 Vrms
- . RoHs peak IR reflow temperature at 245°C



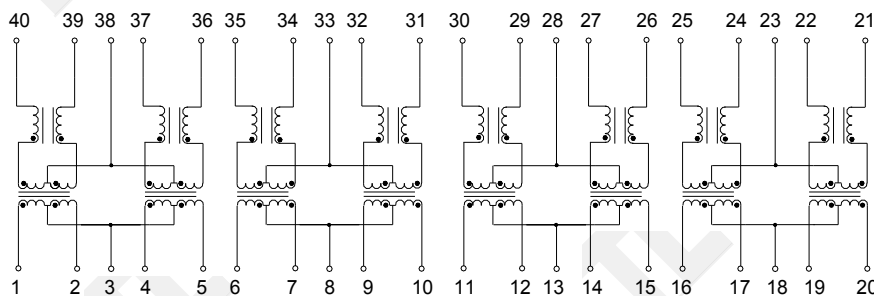
Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	0.3-30MHz	50MHz				
LF400116R	1CT:1CT	1CT:1CT	-1.0	-18	-13	-12	-	-25	-33	-

Mechanicals:

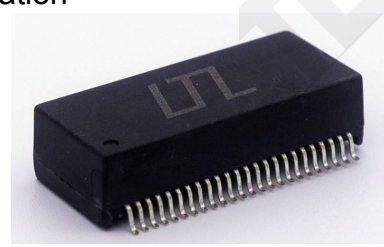


Schematics:





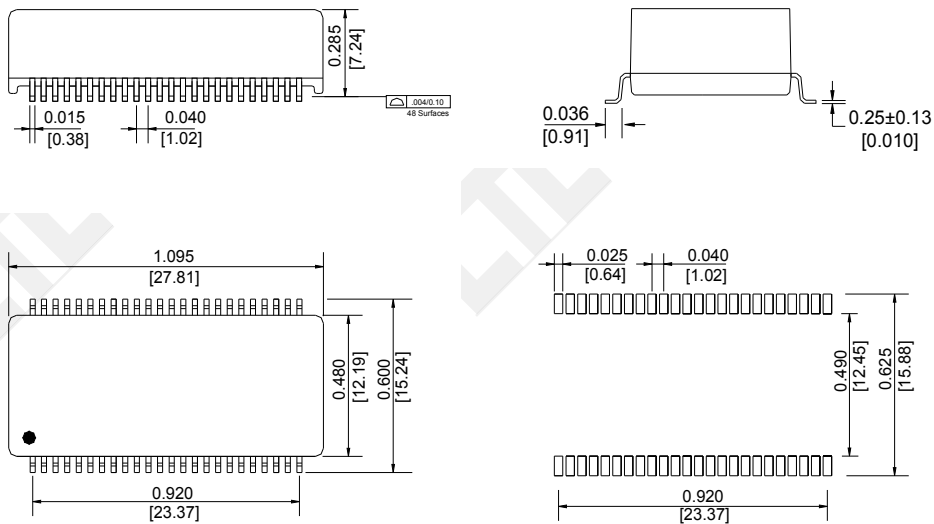
- Isolation transformers for 10/100/1000Base-T and application for Adapter Cards, Hubs and Motherboards
- Designed to meet IEEE802.3 standards including 350μH OCL with 8mA DC bias
- Minimum interwinding breakdown voltage of 1500 Vrms
- RoHs peak IR reflow temperature at 245°C



Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

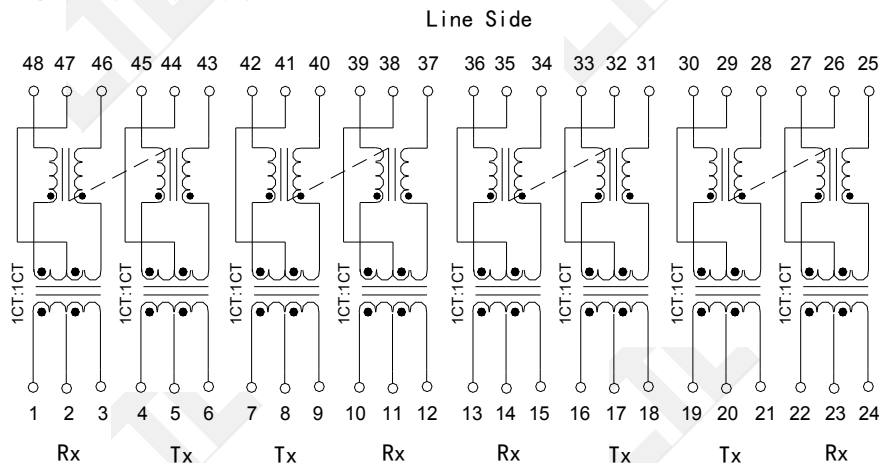
Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	0.3-30MHz	50MHz				
LF480117R	1:1	1:1	-1.1	-16	-13	-12	-33	-	-33	A/(1)

Mechanicals:



(A)

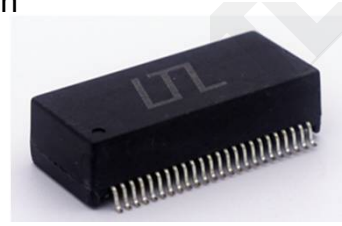
Schematics:



(1) Chip Side



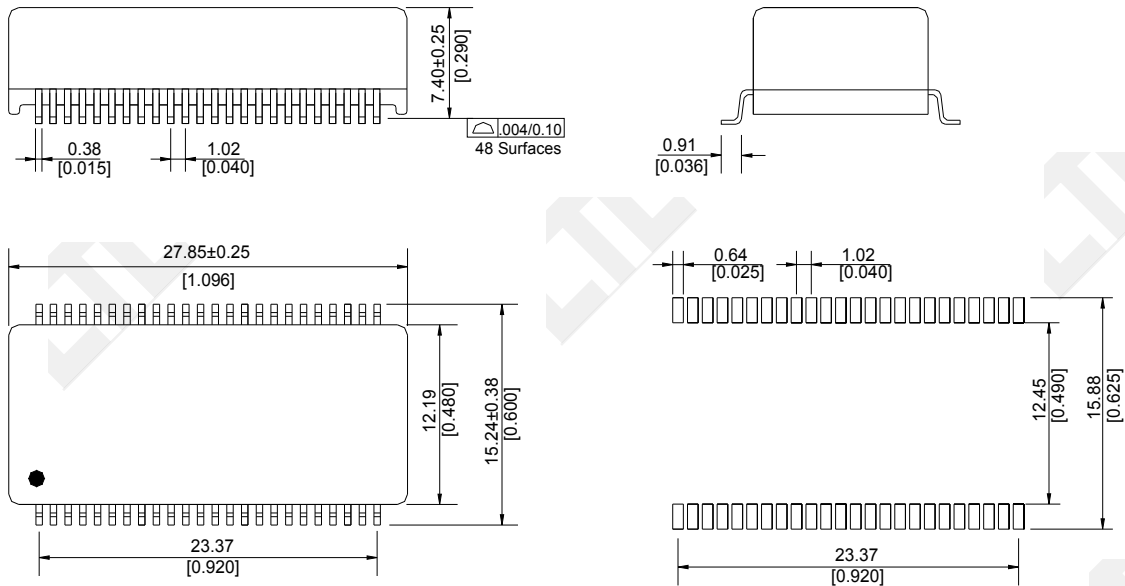
- . Isolation transformers for 10/100/1000Base-T and application for Adapter Cards, Hubs and Motherboards
- . Designed to meet IEEE802.3 standards including 350μH OCL with 8mA DC bias
- . Minimum interwinding breakdown voltage of 1500 Vrms
- . RoHs peak IR reflow temperature at 245°C



Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

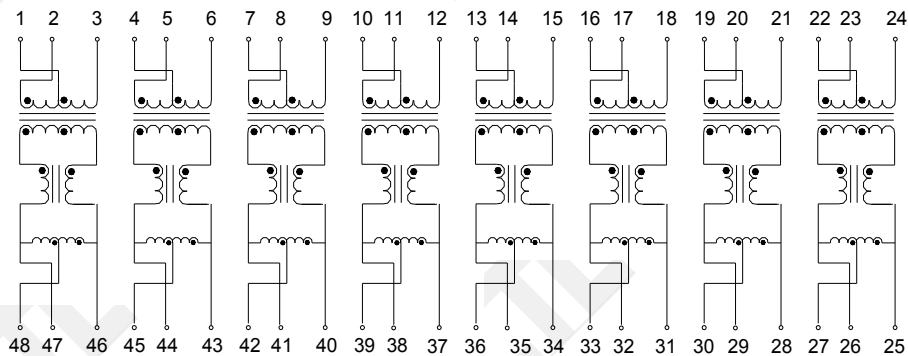
Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	0.3-30MHz	50MHz				
LF480118R	1:1	1:1	-1.0	-18	-14.5	-12	-33	-30	-33	B/(2)

Mechanical:



(B)

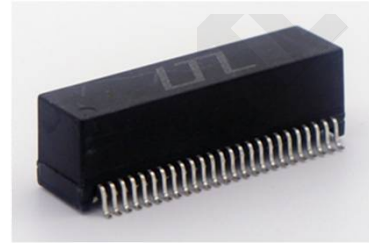
Schematics:



(2)



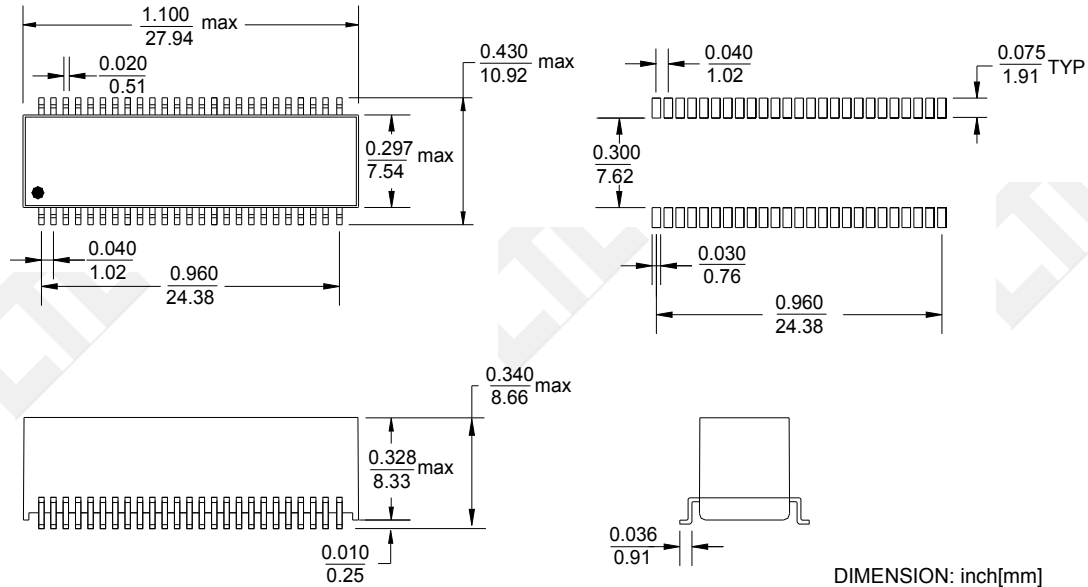
- . Isolation transformers for 10/100/1000Base-T and application for Adapter Cards, Hubs and Motherboards
- . Designed to meet IEEE802.3 standards including 350μH OCL with 8mA DC bias
- . Minimum interwinding breakdown voltage of 1500 Vrms
- . RoHs peak IR reflow temperature at 245°C



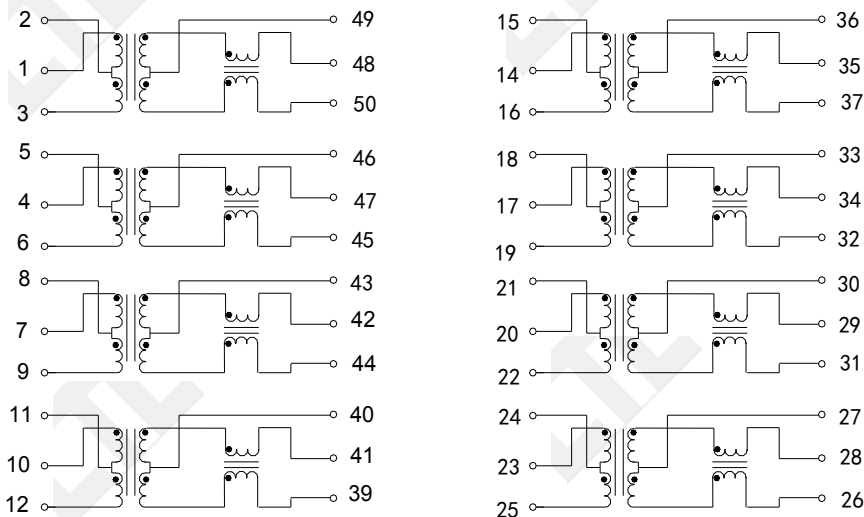
Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	0.3-30MHz	50MHz				
LF500119R	1:1	1:1	-1.0	-18	-14	-12	-33	-	-33	-

Mechanicals:

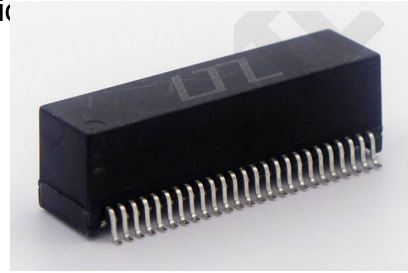


Schematics:





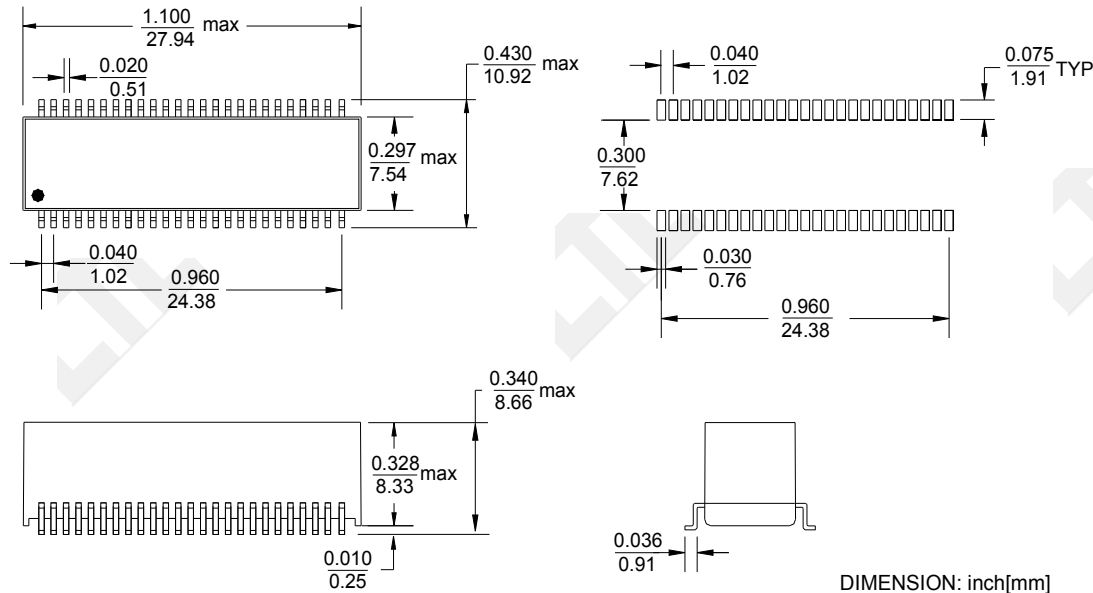
- Isolation transformers for 10/100/1000Base-T and applicati
for Adapter Cards, Hubs and Motherboards
- Inductance 100uH Min
- Minimum interwinding breakdown voltage of 1500 Vrms
- RoHs peak IR reflow temperature at 245°C



Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

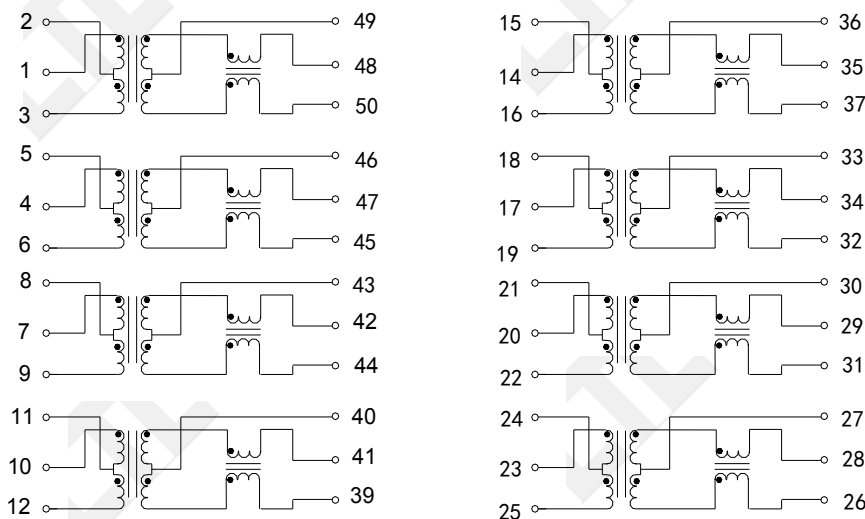
Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		1-250MHz	1-40MHz	100MHz				
LF500328R	1:1	1:1	-1.0	-20	-14	-7	-40	-30	-30	-

Mechanicals:



DIMENSION: inch[mm]






Schematics:



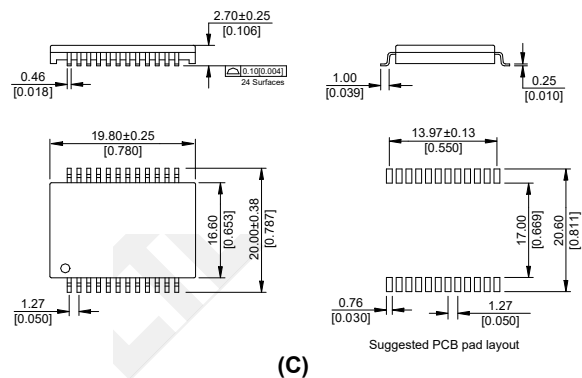
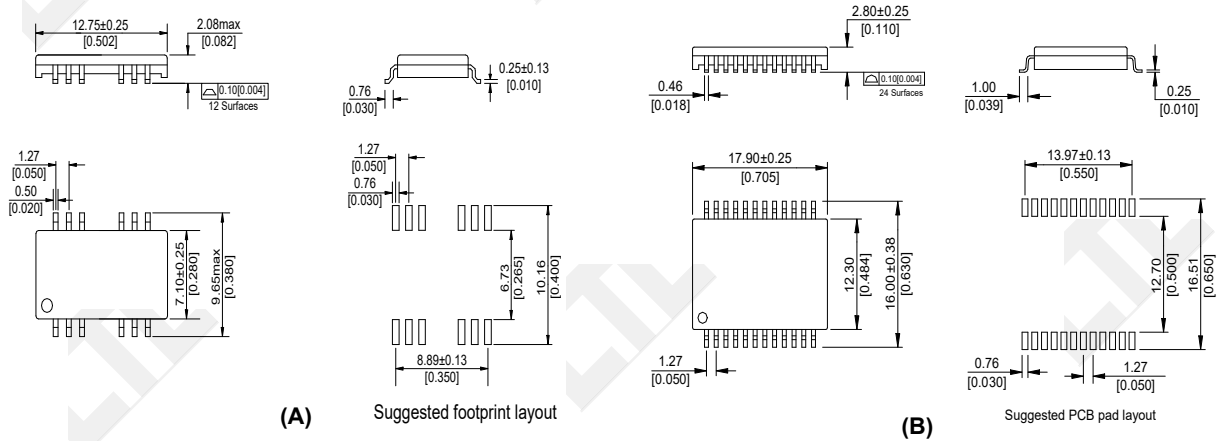


- . Isolation transformers for 10/100and application for Adapter Cards, Hubs and Motherboards
- . Designed to meet IEEE802.3 standards including 350μH OCL with 8mA DC bias
- . Minimum interwinding breakdown voltage of 1500 Vrms
- . RoHs peak IR reflow temperature at 245°C

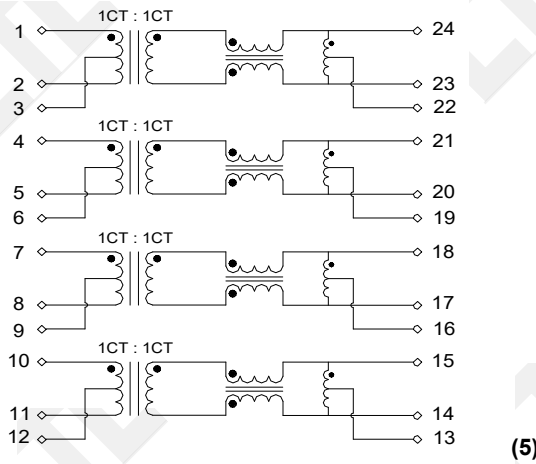
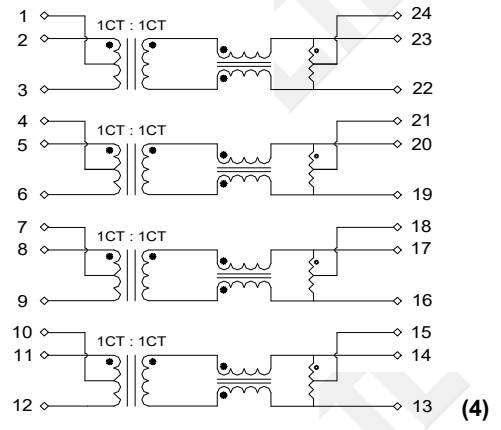
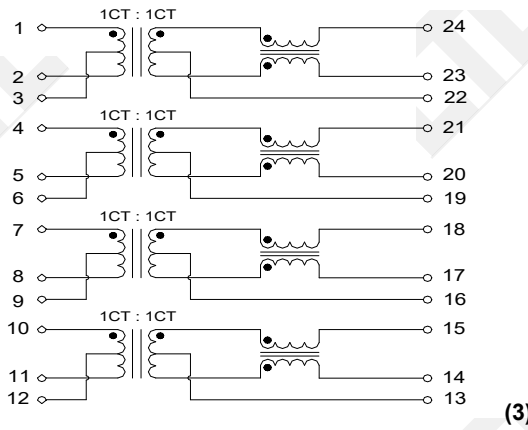
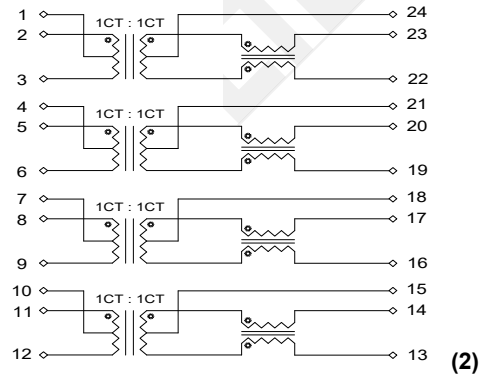
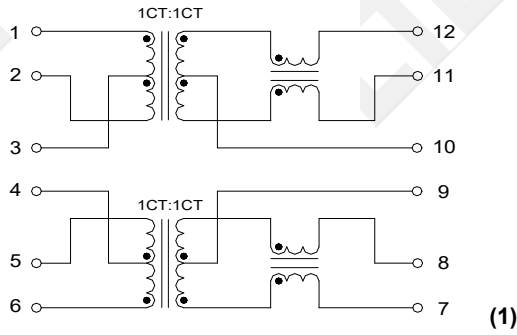


Electrical Specification @ 25°C											
Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)				Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	0.1-30MHz	60MHz	80MHz				
 LF160186R	1CT:1CT	1CT:1CT	-1.0	-16	-14	-12	-30	-	-33	A/(1)	
 LF240347R	1:1	1:1	-1.0	-18	-15	-12	-33	-30	-33	B/(2)	
 LF240348R	1:1	1:1	-1.0	-18	-15	-12	-33	-30	-33	B/(3)	
 LF240349R	1:1	1:1	-1.0	-18	-15	-12	-33	-30	-33	C/(4)	
 LF240350R	1:1	1:1	-1.0	-18	-15	-12	-33	-30	-33	C/(5)	

Mechanicals:

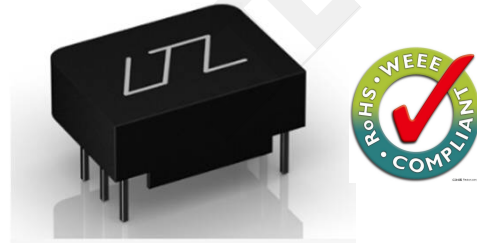


Schematics:





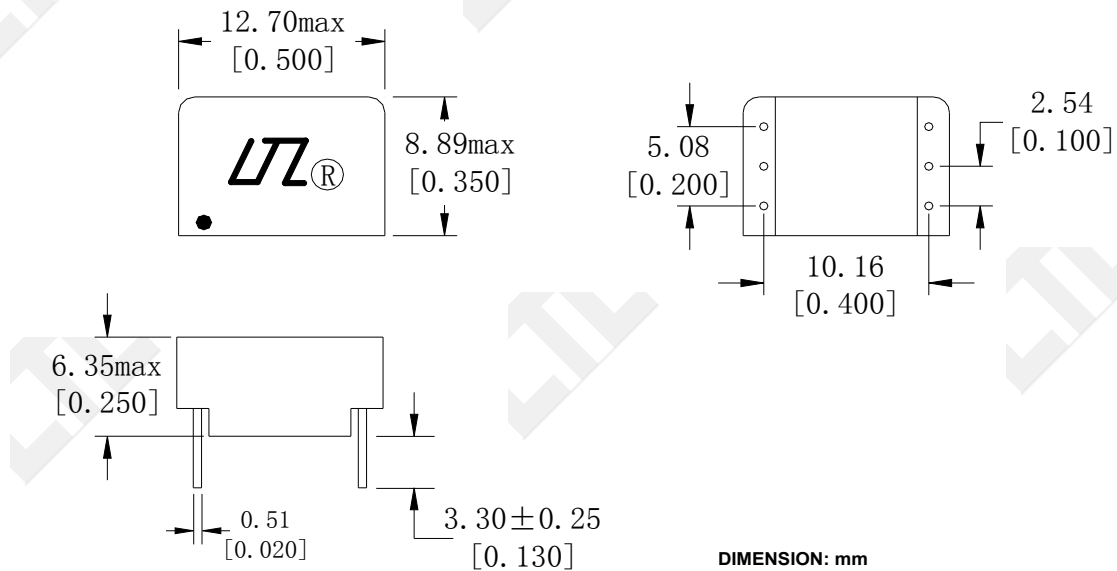
- Common mode choke reduce radiated EMI emissions
- Common mode choke for T1,E1,CEPT and PRI ISDN application
- Minimum interwinding breakdown voltage of 1500 Vrms
- RoHs peak IR reflow temperature at 245°C



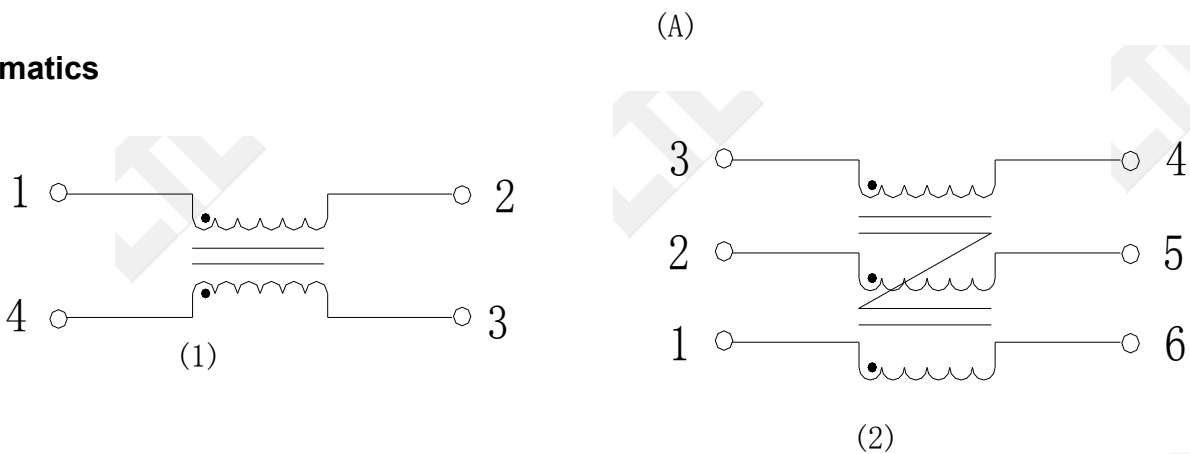
Electrical Specification @ 25°C - Operating Temperature 0°C to 70°C

Part Number	Turns Ratio (±3%)		OCL (Min)	LL (Max)	cw/w (Max)	DCR (Max)	DCR (Max)	Primary Pins	Mechanical / Schematics
	Tx	Rx	μH	μH	pF	mΩ			
LC060176R	1:1	1:1	140	0.3	25	0.6	-	-	A/ (1)
LC060177R	1:1	1:1	85	0.3	25	0.3	-	-	A/ (2)

Mechanical

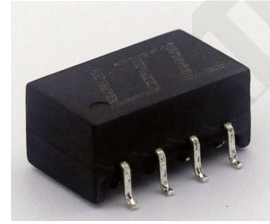


Schematics





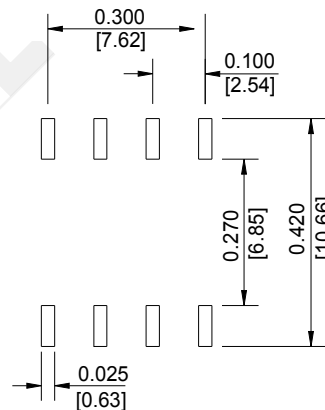
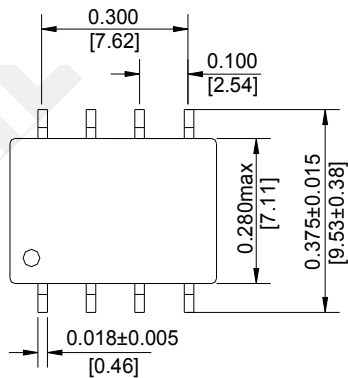
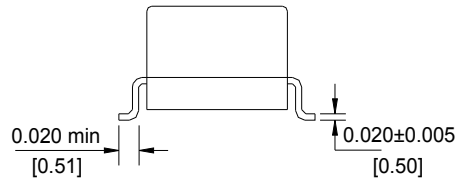
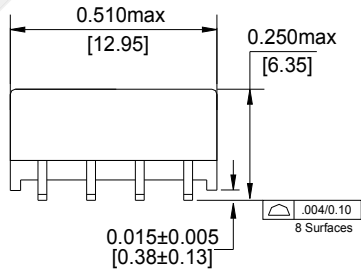
- Common mode choke reduce radiated EMI emissions
- Common mode choke for T1,E1,CEPT and PRI ISDN application
- Minimum interwinding breakdown voltage of 1500 Vrms
- RoHs peak IR reflow temperature at 245 °C



Electrical Specification @ 25°C - Operating Temperature 0°C to 70°C

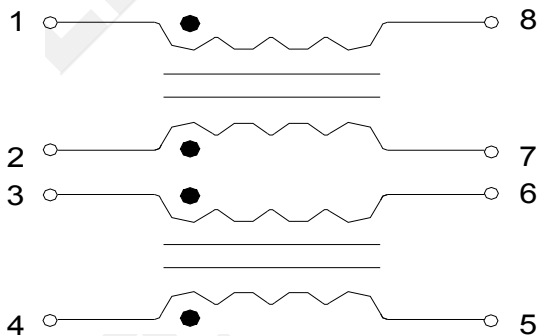
Part Number	Turns Ratio (±3%)		OCL (Min)	LL (Max)	cw/w (Max)	DCR (Max)	DCR (Max)	Primary Pins	Mechanical / Schematics
	Tx	Rx	μH	μH	pF	mΩ			
LC080161R	1:1	1:1	350	0.2	10	0.25	-		-

Mechanical



DIMENSION: inch/mm

Schematics

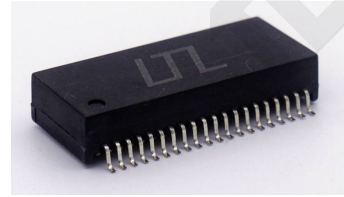


Common mode attenuation:

- 17dB Min @100KHz
- 23dB Min @1MHz
- 25dB Min @10MHz
- 17dB Min @100MHz



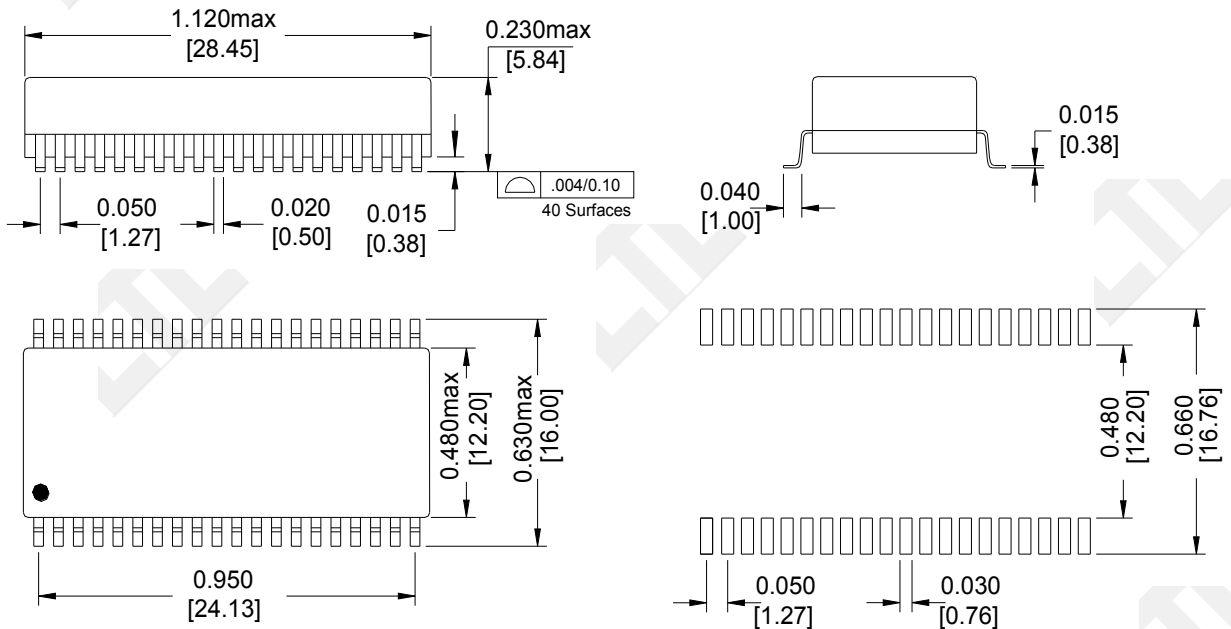
- Common mode choke reduce radiated EMI emissions
- Common mode choke for T1,E1,CEPT and PRI ISDN application
- Minimum interwinding breakdown voltage of 500 Vrms
- RoHs peak IR reflow temperature at 245°C



Electrical Specification @ 25°C - Operating Temperature 0°C to 70°C

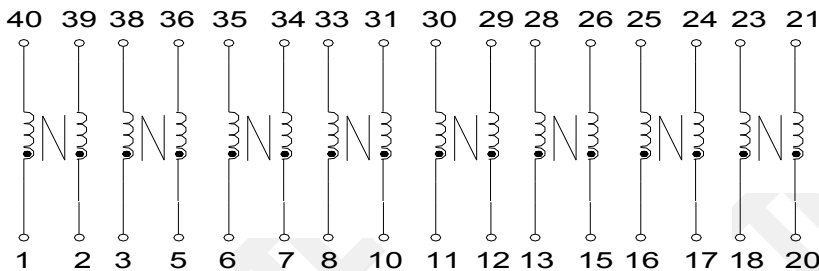
Part Number	Turns Ratio (±3%)		OCL (Min)	LL (Max)	cw/w (Max)	DCR (Max)	DCR (Max)	Primary Pins	Mechanical / Schematics
	Tx	Rx	μH	μH	pF	mΩ	mΩ		
LC400162R	1:1	1:1	47	0.25	25	0.4	-		-

Mechanical



DIMENSION: INCH

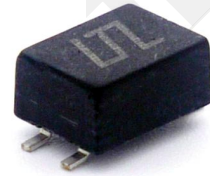
Schematics



Common mode attenuation:

- 27dB Typ @1MHz
- 43dB Typ @30MHz
- 35dB Typ @200MHz

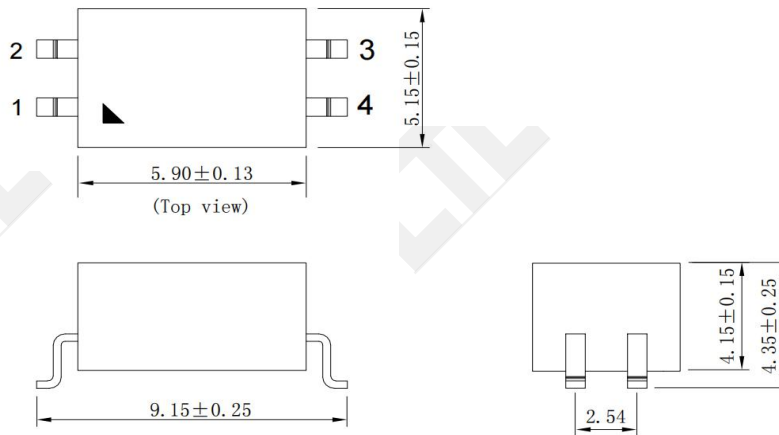
- . Common mode choke
- . Designed to meet IEEE802.3 standards including.
- . Minimum interwinding breakdown voltage of 1500 Vrms.
- . RoHs peak IR reflow temperature at 255°C.



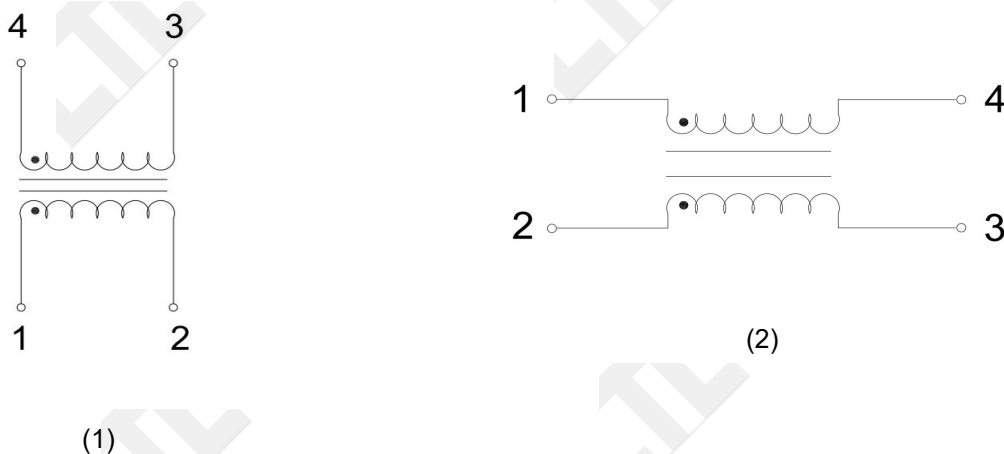
Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Turns Ratio (±3%)	OCL	LL (Typ)	cw/w	DCR (Max)	Isolation Voltage	Primary Pins	Mechanical / Schematics
		μH	μH	pF	Ω	Vac		
LT040193R	1:1	350±30%	3.0	10Max	0.6	1500		(1)
LT040194R	1:1	500±30%	0.3	20typ	0.7	500		(2)

Mechanical:

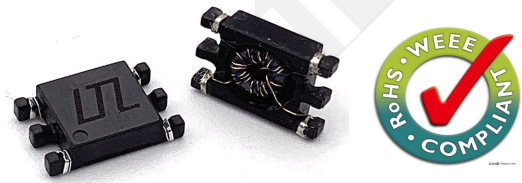


Schematics:



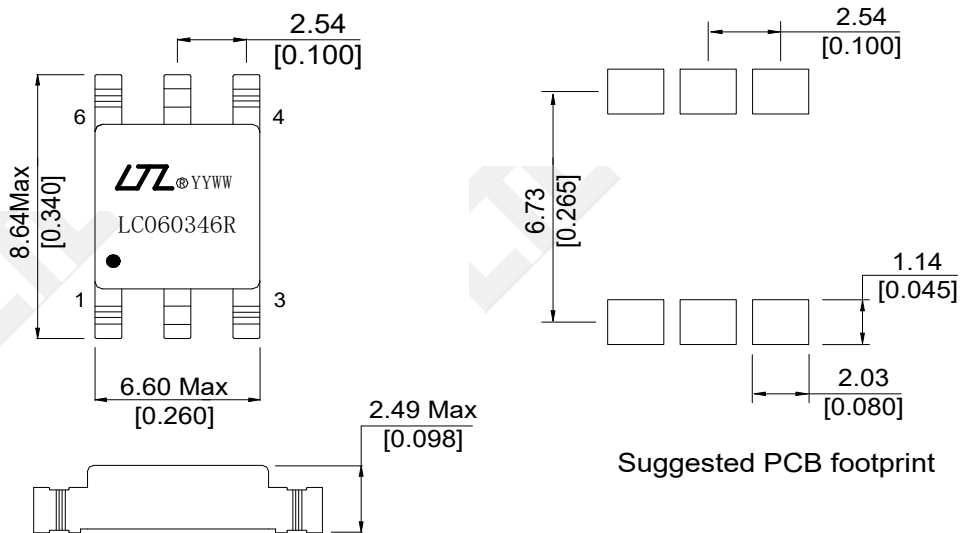


- . Common mode choke
- . Minimum interwinding breakdown voltage of 500 Vrms
- . RoHs to meet IR reflow temperature at 245°C

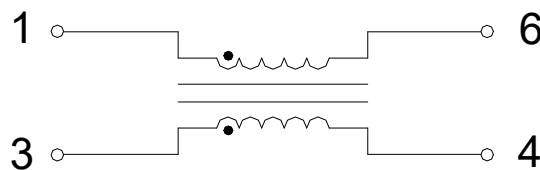


Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C												
Part Number	Turns Ratio (±2%)	OCL (Min)	DCR (Max)	Cw/w (Max)	CMA (typ)							
					μH	Ω	pF	0.1M	1M	10M	30M	50M
LC030346R	1:1	47	0.4	20	-11	-27	-40	-44	-42	-36	-26	-17

Machenicals

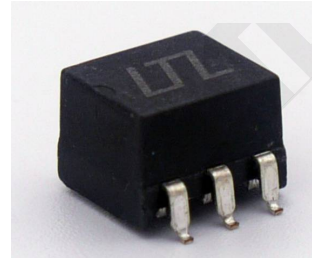


Schematics





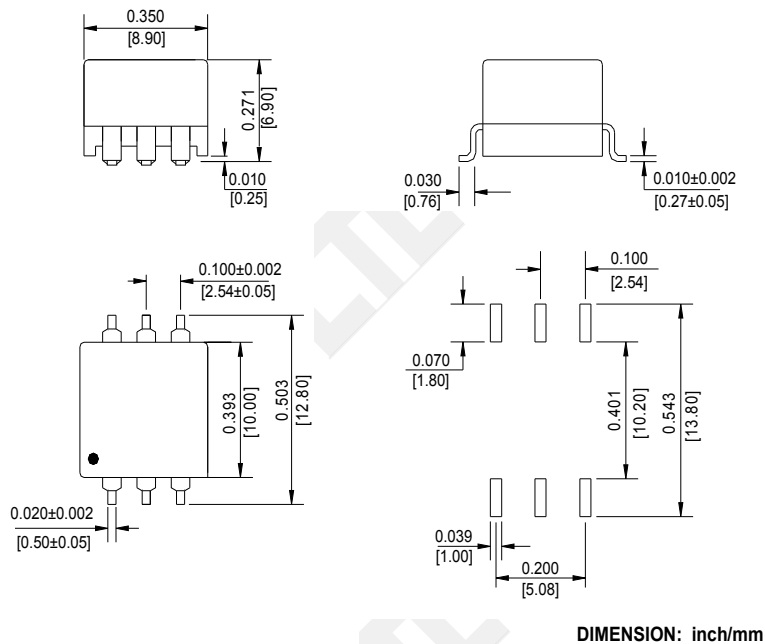
- . The series to meet the isolation and impedance match requirement for T1,E1,CEPT and PRI ISDN application
- . Transformer intended to be used as a combined "input/output" and "75/ 120 Ω balun" transmission
- . RoHs peak IR reflow temperature at 245°C



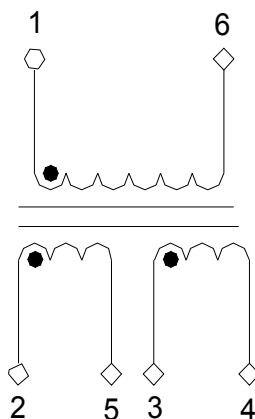
Electrical Specification @ 25°C - Operating Temperature 0°C to 70°C

Part Number	Turns Ratio (±3%)		OCL (Min)	LL (Max)	cw/w (Typ)	DCR Pri. (Max)	DCR Sec. (Max)	Primary Pins	Mechanical / Schematics
	1:2	1:1.58	mH	μH	pF	mΩ	mΩ		
LT060107R	1:2	1:1.58	1.5	1.0	40	1.0	-	1-6	-

Mechanicals:

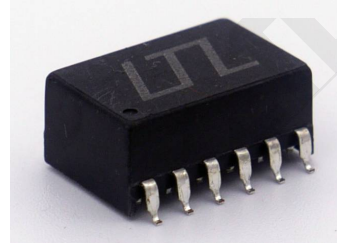


Schematics:





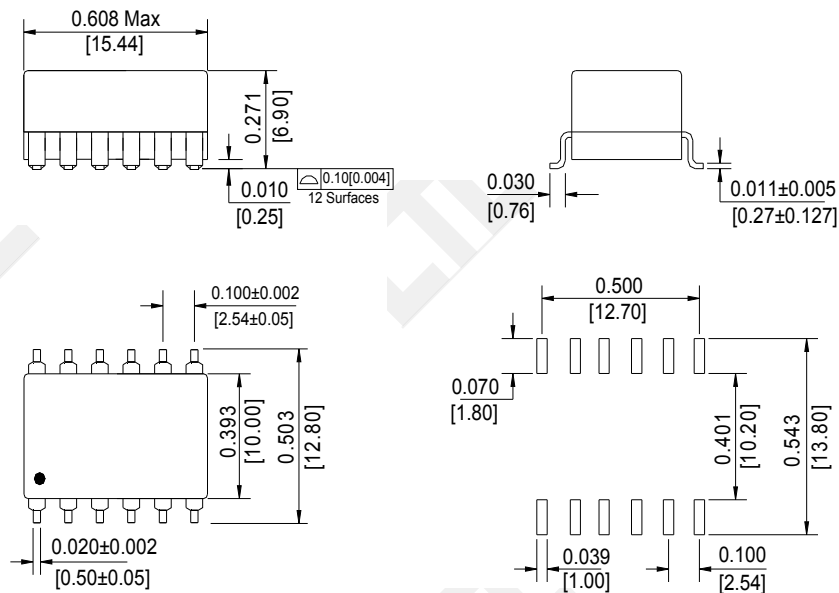
- . The series to meet the isolation and impedance match requirement for T1,E1,CEPT and PRI ISDN application
- . Transformer intended as impedance matcher and/or DC-Barrier between 120 and 75Ω transmission lines
- . RoHs peak IR reflow temperature at 245°C



Electrical Specification @ 25°C - Operating Temperature 0°C to 70°C

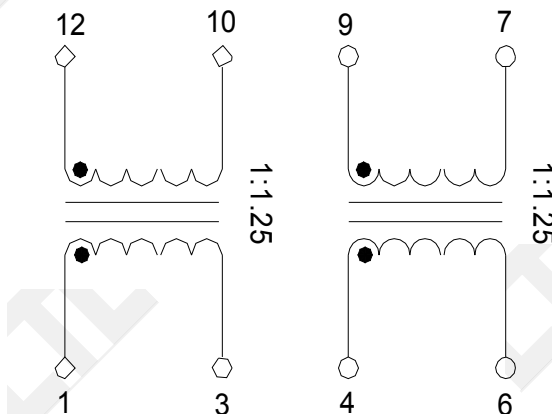
Part Number	Turns Ratio (±3%)		OCL (Min)	LL (Max)	cw/w (Max)	DCR Pri. (Max)	DCR Sec. (Max)	Primary Pins	Mechanical / Schematics
	Tx	Rx	mH	μH	pF	mΩ	mΩ		
LT120106R	1:1.25	1:1.25	4.0	1.0	55	1.0	-	9-7, 12-10	-

Mechanicals:

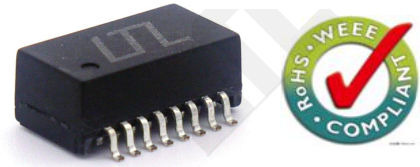


DIMENSION: inch /mm

Schematics:



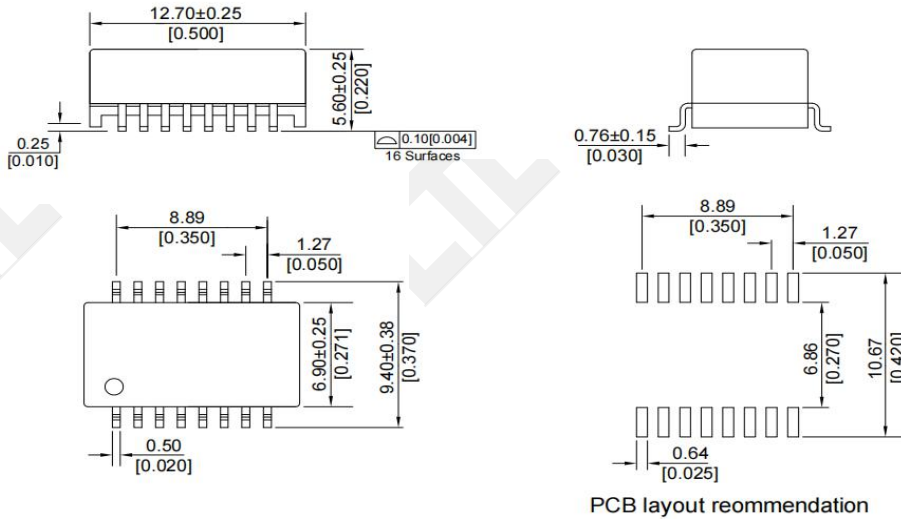
- . The series to meet the isolation and impedance match requirement for T1,E1,CEPT and PRI ISDN application
- . The package contain transmit and receive transformers
- . Minimum interwinding breakdown voltage of 1500 Vrms
- . RoHs peak IR reflow temperature at 245°C



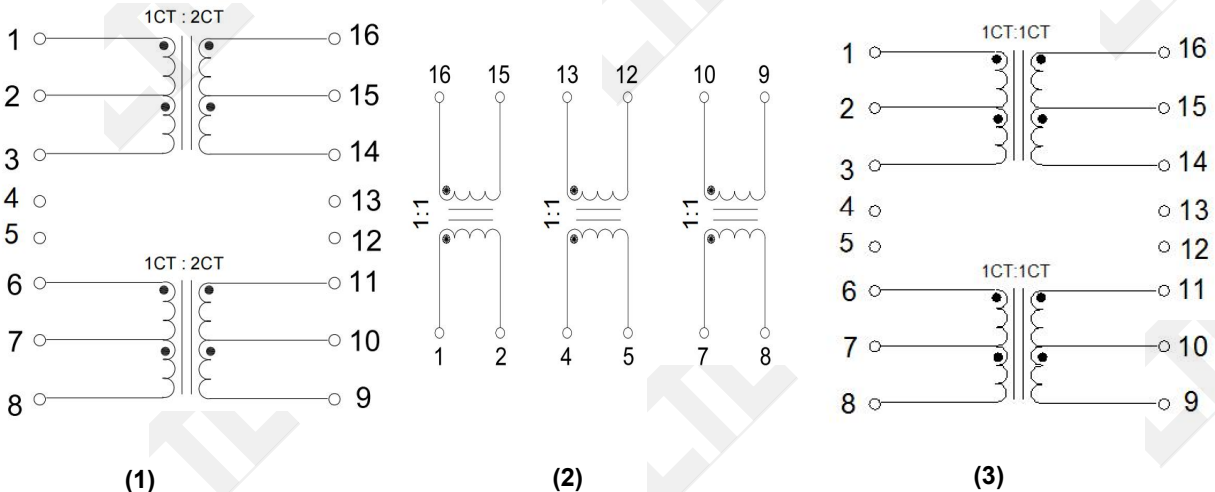
Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Turns Ratio (±3%)		OCL (Min)	LL (Max)	cw/w (Max)	DCR Pri. (Max)	DCR Sec. (Max)	Primary Pins	Mechanical / Schematics
	Tx	Rx	mH	μH	pF	mΩ	mΩ		
LT160061R	1CT:2CT	1CT:2CT	1.5	0.4	35	0.8	1.4	1-3, 4-6	A/(1)
LT160062R	1:1	1:1	0.08-0.2	0.2	9	0.3	-	12-,4-5,7-8	A/(2)
LT160065R	1CT:1CT	1CT:1CT	1.2	0.8	30	0.7	-	1-3, 6-8	A/(3)

Mechanicals:

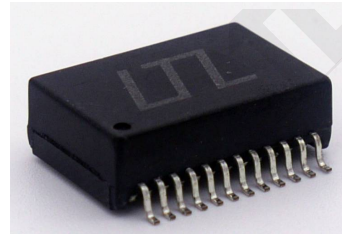


Schematics:





- . The series to meet the isolation and impedance match requirement for T1,E1,CEPT and PRI ISDN application
- . The package contain transmit and receive transformers
- . Minimum interwinding breakdown voltage of 1500 Vrms
- . RoHs peak IR reflow temperature at 245°C

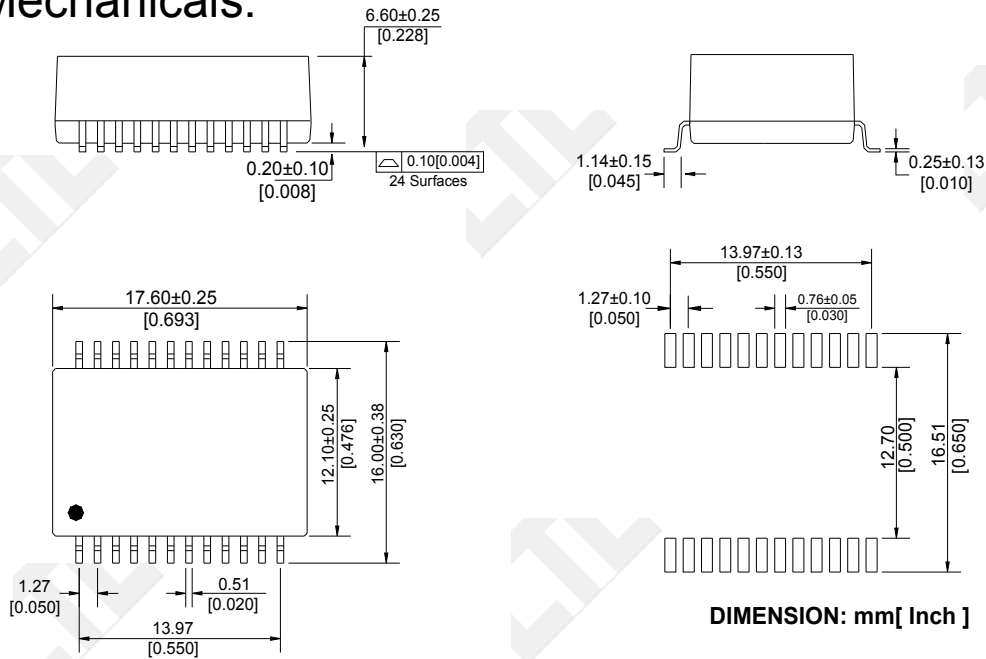


Electrical Specification @ 25°C - Operating Temperature 0°C to 70°C

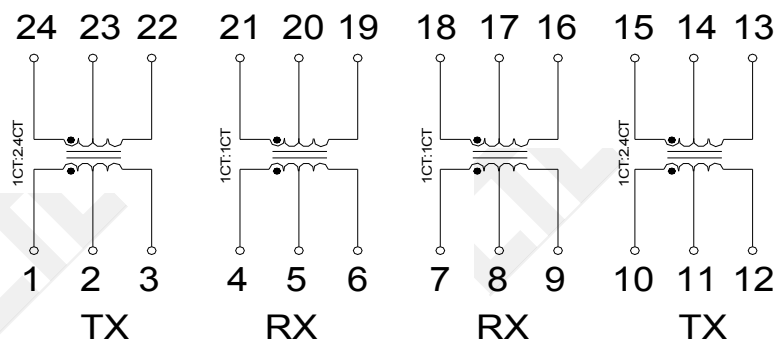
Part Number	Turns Ratio (±3%)		OCL (Typ)	LL (Max)	cw/w (Max)	DCR Pri. (Max)	DCR Sec. (Max)	Primary Pins	Mechanical / Schematics
	Tx	Rx	mH	μH	pF	mΩ	mΩ		
LT240060R	1CT:2CT	1CT:1CT	1.5	0.5	35	0.8	-	TX: 1-3,10-12 RX:4-6,7-9	-

- CMR -50dB Typ@(1-50)Mhz
- Crosstalk -60dB Typ@(0.5-10)Mhz

Mechanicals:

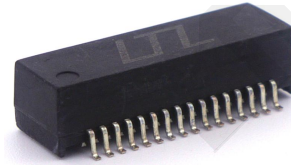


Schematics:



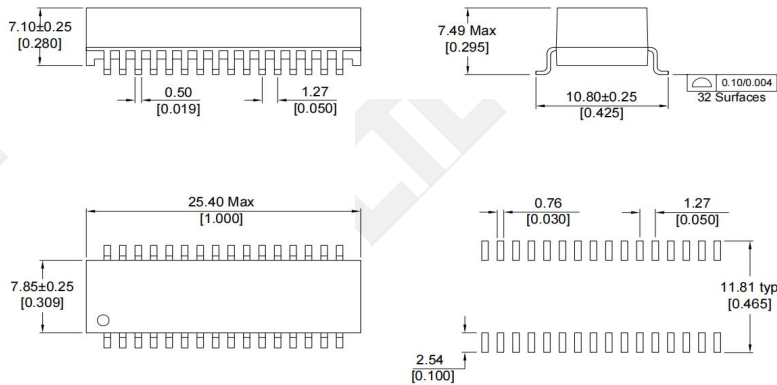


- . The series to meet the isolation and impedance match requirement for T1,E1,CEPT and PRI ISDN application
- . The package contain transmit and receive transformers
- . Minimum interwinding breakdown voltage of 1500 Vrms
- . RoHs peak IR reflow temperature at 245°C



Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C									
Part Number	Turns Ratio (±2%)		OCL (Min)	LL (Max)	cw/w (Max)	DCR Pri. (Max)	Crosstalk (0.1-10M) Typ	Primary Pins	Mechanical / Schematics
	Tx	Rx	mH	μH	pF	mΩ	dB		
LT320249R	1:2	1:1	1.2	0.6	30	0.9	-60	TX:1-2,7-8,9-10,15-16, RX:3-4,5-6,11-12,13-14	A/(1)
LT320250R	1:2.4	1:1	1.2	0.6	35	0.9	-60	TX:1-2,7-8,9-10,15-16, RX:3-4,5-6,11-12,13-14	A/(2)
LT320251R	1:2	1:2	1.2	0.6	30	0.9	-60	1-2,3-4,5-6,7-8,9-10,11-12, 13-14,15-16,	A/(3)
LT320252R	1:1	1:1	1.2	0.6	30	0.9	-60	1-2,3-4,5-6,7-8,9-10,11-12, 13-14,15-16,	A/4

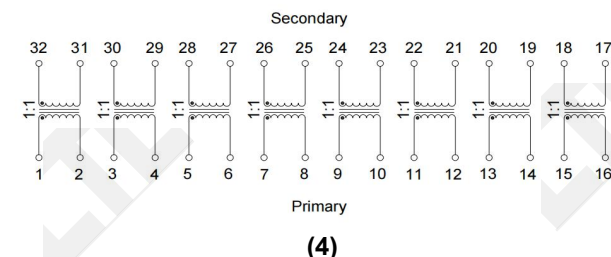
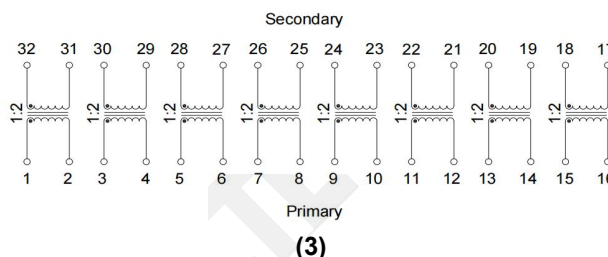
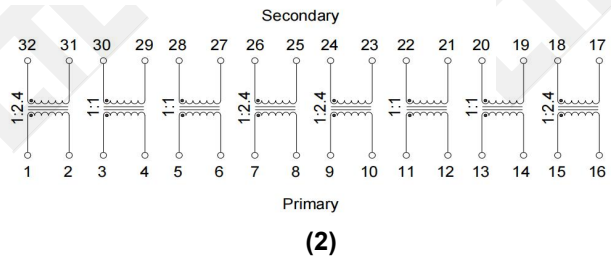
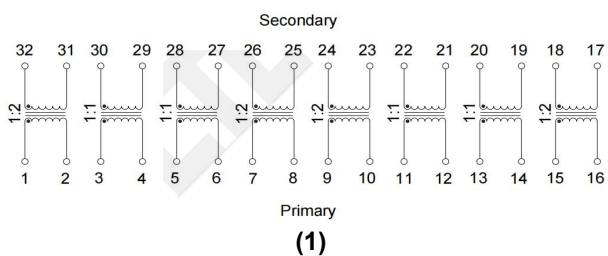
Mechanicals:



PCB layout recommendation

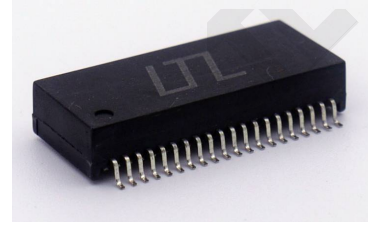
Schematics:

(A)





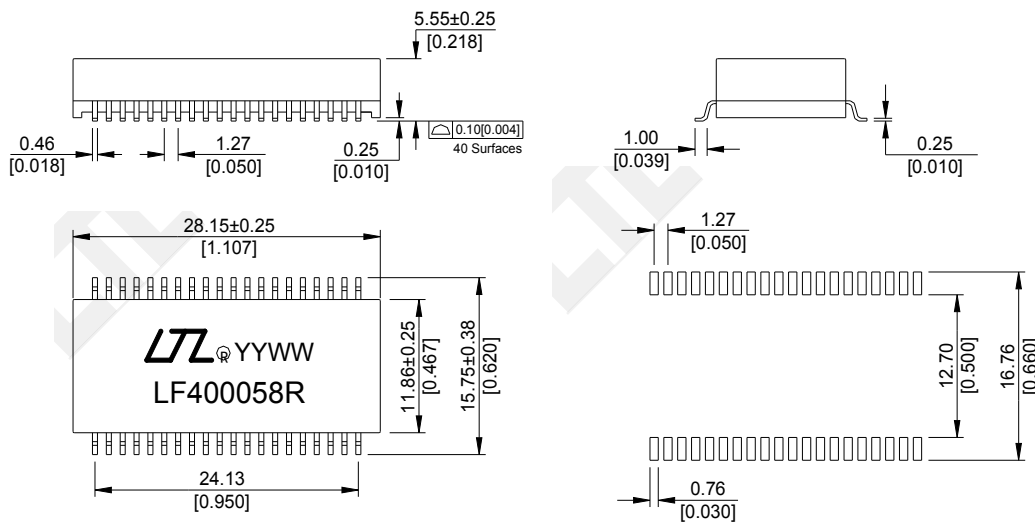
- . The series to meet the isolation and impedance match requirement for T1,E1,CEPT and PRI ISDN application
- . The package contain transmit and receive transformers
- . Minimum interwinding breakdown voltage of 1500 Vrms
- . RoHs peak IR reflow temperature at 245°C



Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

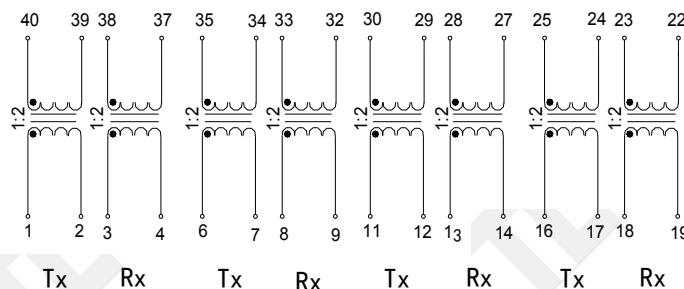
Part Number	Turns Ratio (±3%)		OCL (Min)	LL (Max)	cw/w (Max)	DCR Pri. (Max)	Primary Pins	Mechanical / Schematics
	Tx	Rx	mH	μH	pF	mΩ		
LT400058R	1:2	1:2	1.2	0.7	35	0.8	1-2, 3-4, 6-7, 8-9, 11-12, 13-14, 16-17, 18-19	

Machenicals:

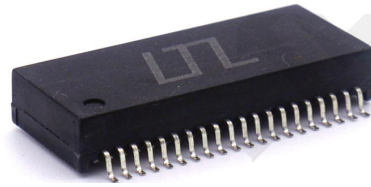


Suggested PCB footprint

Schematics:



- . The series to meet the isolation and impedance match requirement for T1,E1,CEPT and PRI ISDN application
- . The package contain transmit and receive transformers
- . Minimum interwinding breakdown voltage of 1500 Vrms
- . RoHs peak IR reflow temperature at 245°C



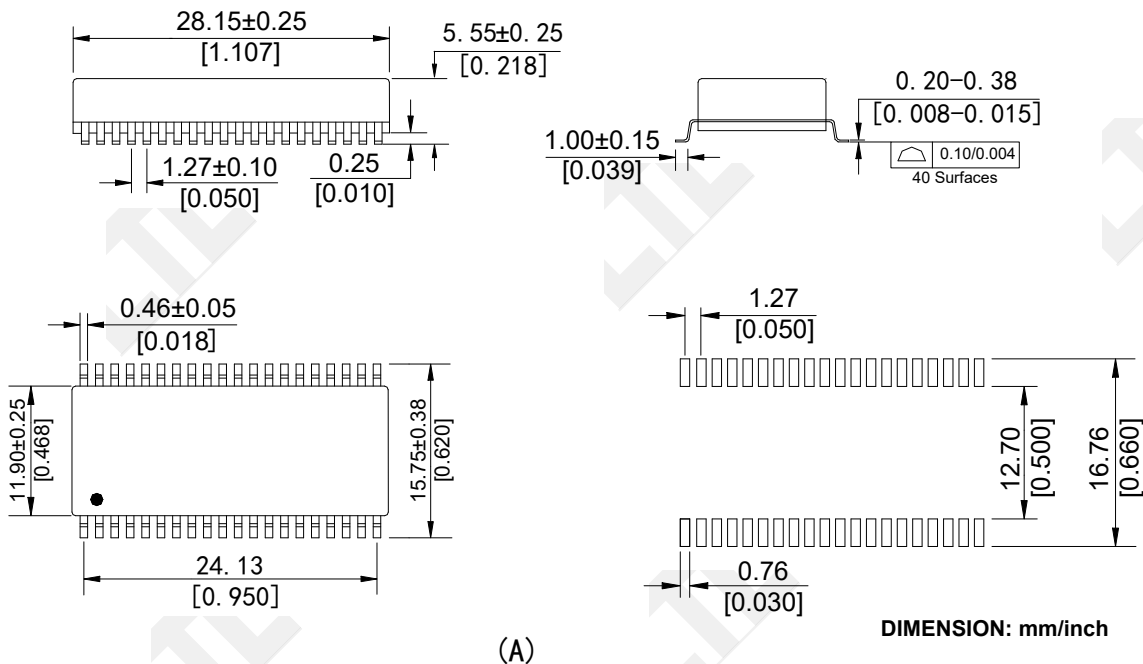
Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Turns Ratio (±3%)		OCL (Min)	LL (Max)	cw/w (Max)	DCR Pri. (Max)	DCR Sec. (Max)	Primary Pins	Mechanical / Schematics
	Tx	Rx	mH	μH	pF	mΩ	mΩ		
LT400101R	1:2	1:2	1.2	0.7	35	0.8	-	1-3,4-5,6-8,9-10,11-13,14-15,16-18,19-20	A/(1)
LT400103R	1:2	1:1	1.2	0.6	35	0.9	-	TX:1-3,6-8,11-13,16-18, RX:4-5,9-10,14-15,19-20	A/(2)
LT400105R	1:2.42	1:1	1.0	1.0	35	0.8	-	TX:1-3,6-8,11-13,16-18, RX:4-5,9-10,14-15,19-20	A/(3)
LT400133R	1:2.4	1:1	1.5	0.5	35	0.8	-	TX:1-2,8-9,11-12,18-19, RX:3-4,6-7,13-14,16-17	A/(5)

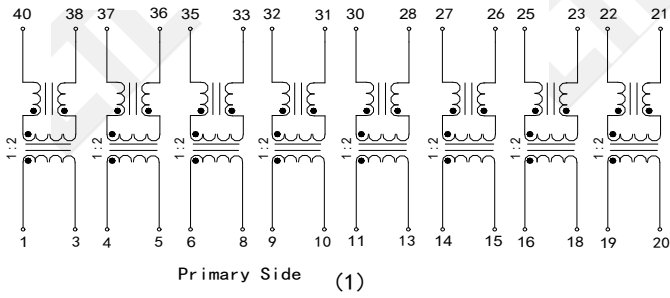
Electrical Specification @ 25°C - Operating Temperature 0°C to 70°C

LT400132R	1:2CT	1:2CT	2.0	0.8	35	-	-	TX:4-5,9-10,14-15,19-20 RX:24-25,29-30,34-35,39-40	A/(4)
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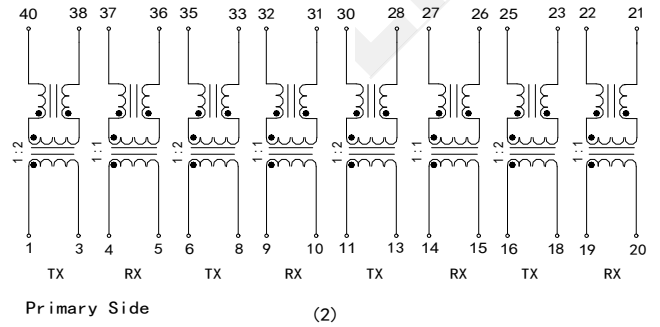
Mechanicals:



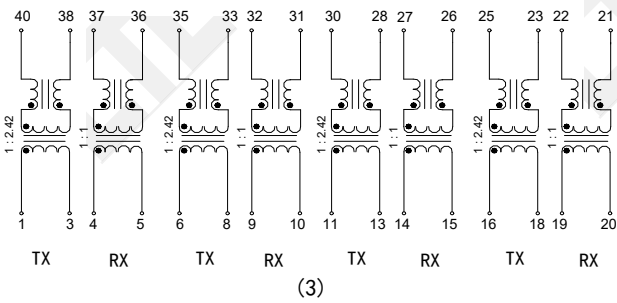
Schematics:



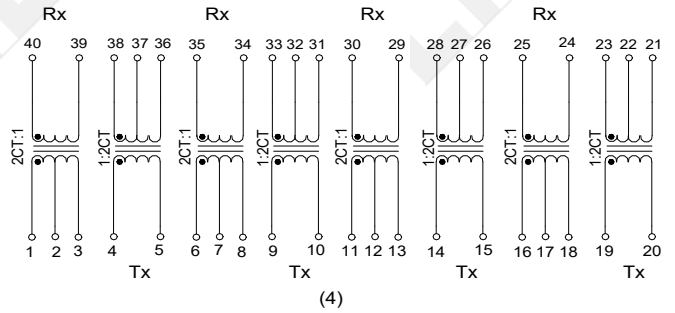
Schematics:



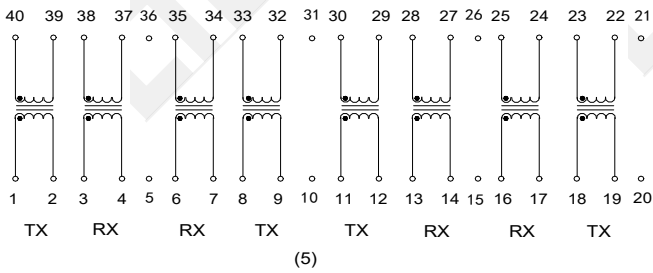
Schematics:



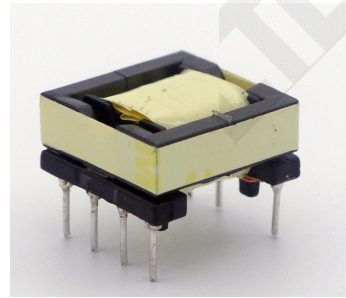
Schematics:



Schematics:

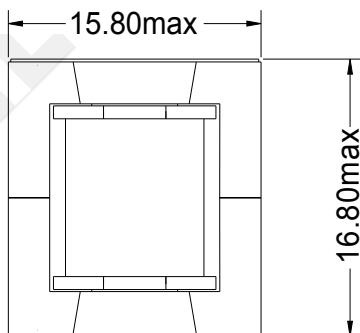
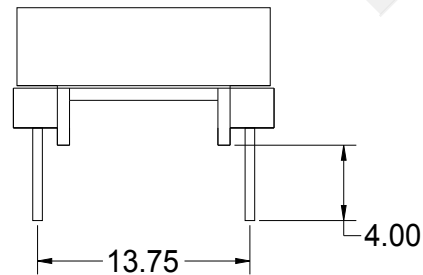
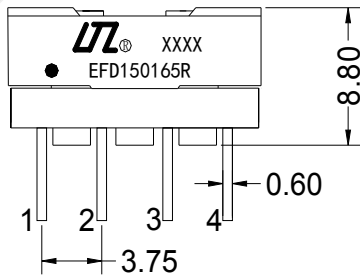


- . The modules to provide excellent result in high performance DSL circuit
- . Power products widely used in switch power supply, lighting and communication
- . Minimum interwinding breakdown voltage of 1000 Vrms



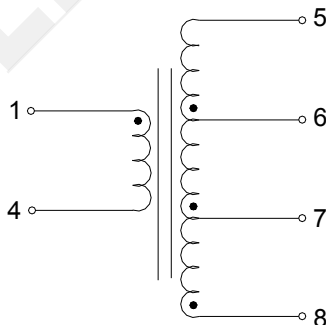
P/N: EFD150165R

Mechanicals:



DIMENSION:mm
Unless otherwise specified
Dim. Tolerances are:
.XX±0.30

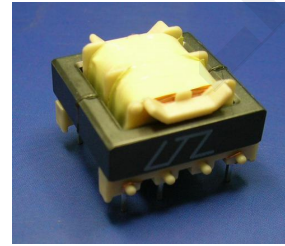
Schematics:



Electrical Specifications:@25°C

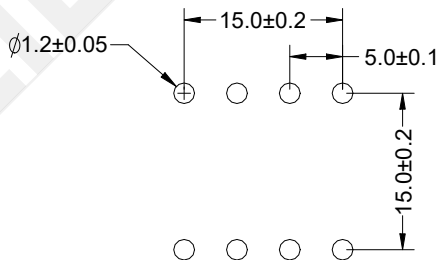
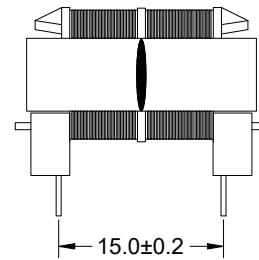
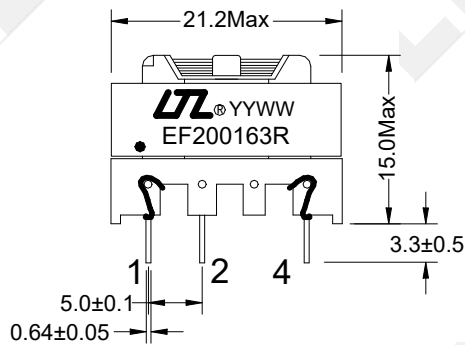
Isolation Voltage: 4400 VAC 0.5mA 1S(1-4/5-7)
Turns Ratio: 1.20~1.30 (1-4:8-7)(1-4:7-5)
Turns Ratio: 1.28~1.39(7-6:1-4)
OCL: 85uH~105uH @1KHz 1V
LL: 5uH max (1-4)@10KHz 1V (Short 5,6,7,8)
Cw/w: 100pF max

- . The modules to provide excellent result in high performance DSL circuit
- . Power products widely used in switch power supply, lighting and communication
- . Minimum interwinding breakdown voltage of 1000 Vrms



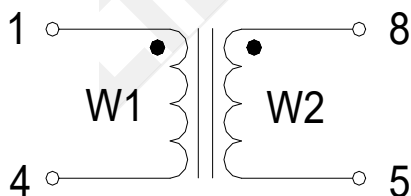
P/N: EFD200163R

Mechanicals:



DIMENSION:mm

Schematics:



Electrical Specifications:@25°C

- Operating Temperature: -25°C to +125°C
- Turns Ratio : W1:W2 +130:130±0.5Ts @f=10KHz,V=50mV
- Isolation Voltage: 1000 Vac,50Hz,1.0mA
 - @W1 to W2
 - @W1 / W2 to core
- OCL: L(1-4) 23mH±25% @f=10KHz,V=50mV
L(8-5) 23mH±25% @f=10KHz,V=50mV
- DCR: DCR(1-4): 1.5Ω Max
DCR(8-5): 1.5Ω Max

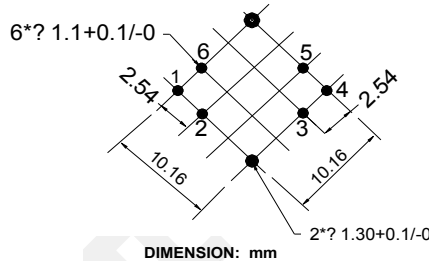
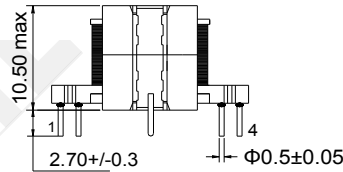
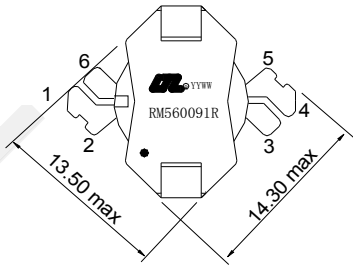
- ROHS Compatible

- . The modules to provide excellent result in high performance DSL circuit
- . Power products widely used in switch power supply, lighting and communication
- . Minimum interwinding breakdown voltage of 1000 Vrms

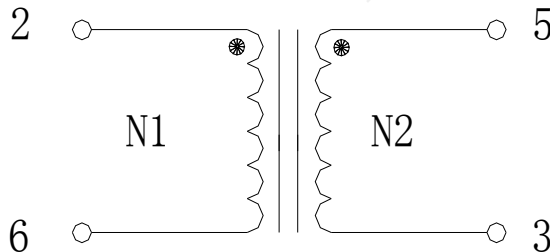


P/N: RM560091R

Mechanicals:



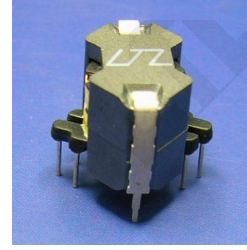
Schematics:



Electrical Specifications: @25°C

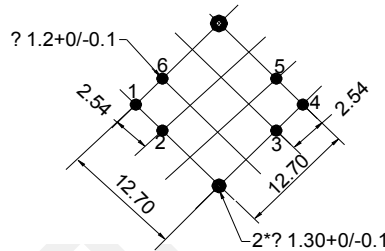
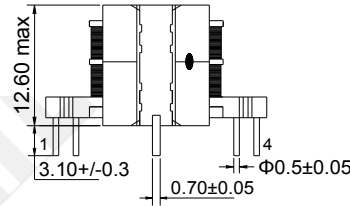
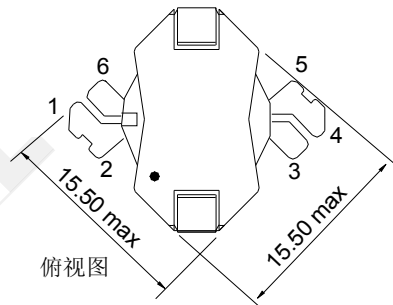
- Operating Temperature: -40°C to +85°C
- Isolation Voltag: 500Vac, 50Hz, 1mA, 2s (N1 to N2)
500Vac, 50Hz, 1mA, 2s (N1& N2 to core)
- Inductance: P(2-3)=36 +/- 5% mH @1KHz, 100mV, short P(5-6)
- Turns Ratio: N1 : N2 = 1 : 1
- DCR: P(2-6)=P(5-3) ≤ 11.5Ω
- LL: P(2-6) ≤ 1.5mH @100KHz, 100mV, short P(3-5)
- CW/W: (P2-6 to P3-5) ≤ 9pF @10KHz, 1V
- Inductance match: P(2-6) / P(3-5) ≤ 3.5% @1KHz, 100mV
- P(2-3) Idc=0.1A / P(2-3) Idc=0A > 0.9 @1KHz, 100mV
short P(5-6)

- . The modules to provide excellent result in high performance DSL circuit
- . Power products widely used in switch power supply, lighting and communication
- . Minimum interwinding breakdown voltage of 1000 Vrms



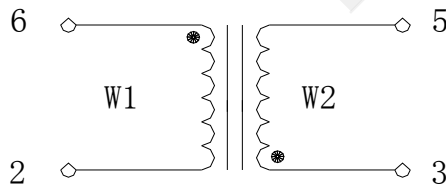
P/N: RM600166R

Mechanicals:



DIMENSION: mm

Schematics:

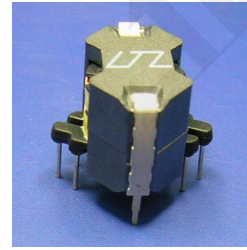


Electrical Specifications: @25°C

- Operating Temperature: -40°C to +80°C
- Isolation Voltage: 500V, 50Hz 0.5mA 2S(W1 to W2)
500V, 50Hz 0.5mA 2S(W1,W2 to core)
- T/R: W(6-2):W(3-5) : 1:1±2% 10KHz 100mV
- Inductance (L 6-5) connect(2-3) :10mH±5%
10KHz,100mV
- Inductance (5-3) : @10KHz,100mV
- Inductance (2-6) : @10KHz,100mV
- inductance L(2-6)-L(5-3): ±0.20 mH
- DCR(5-6) connect(2-3): 3.8 ohm max
- 10 mH inductance drop:9.03mH min 200 mA DC BIAS

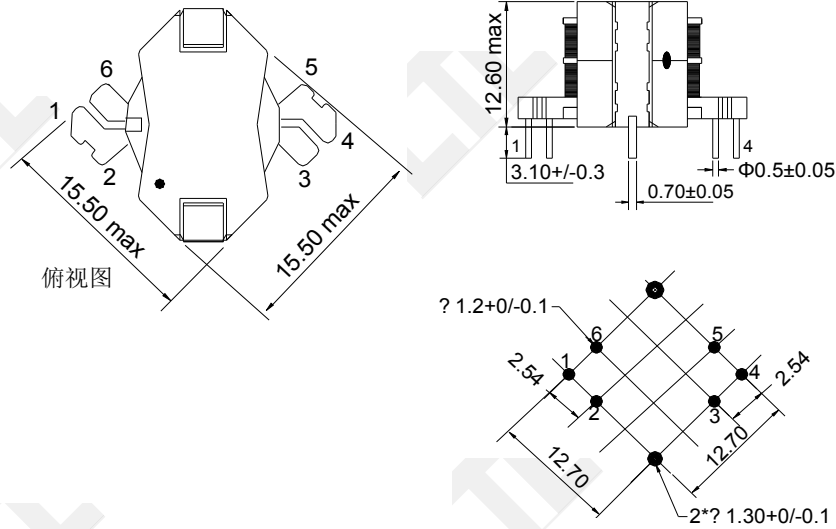


- . The modules to provide excellent result in high performance DSL circuit
- . Power products widely used in switch power supply, lighting and communication
- . Minimum interwinding breakdown voltage of 1000 Vrms



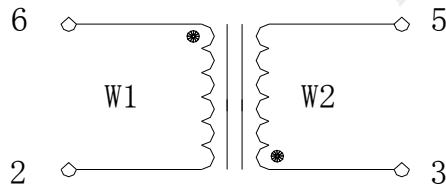
P/N: RM600167R

Mechanicals:



DIMENSION: mm

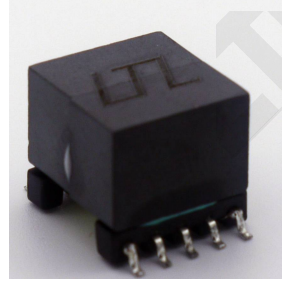
Schematics:



Electrical Specifications: @25°C

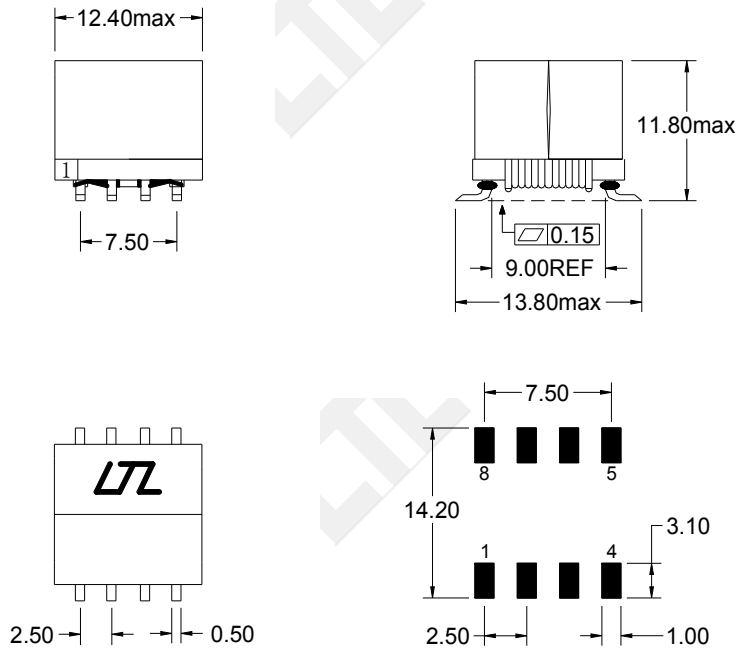
- Operating Temperature: -40°C to +80°C
- Isolation Voltage: 500V, 50Hz 0.5mA 2S(W1 to W2)
500V, 50Hz 0.5mA 2S(W1,W2 to core)
- T/R: W(6-2):W(3-5) : 1:1 ±2% 10KHz, 100mV
- Inductance (5-3) : 10KHz,100mV
- Inductance (2-6) : 10KHz,100mV
- Inductance L (2-6)-L(5-3) : ±0.2 mH
- inductance L(5-6) connect (2-3): 28 mH ±5%,
10KHz,100mV
- DCR(5-6) connect(2-3): 21.2 ohm max
- 28 mH inductance drop: 25.3mH min 200 mA DC BIAS

- . The modules to provide excellent result in high performance DSL circuit
- . Power products widely used in switch power supply, lighting and communication

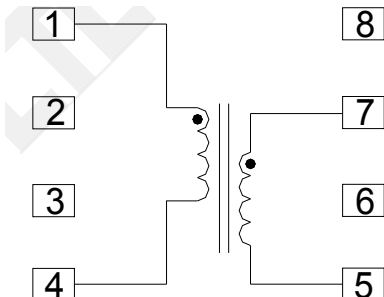


P/N: LEP100183R

Mechanicals:



Schematics:

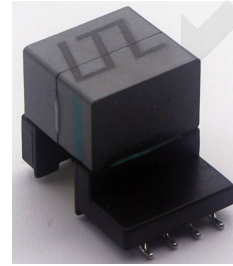


Electrical Specifications: @25°C

Operating Temperature: -40°C ~ +130°C
 Inductance: L(1-4): 150uH ± 8% @ 100KHz, 100mV
 Inductance(1-4)w/DC Biass: %5 drop max, 25°C @ 100KHz, 100mV, 0.1Adc
 LL(1-2): 1.5uH Max @ 150KHz, 35mV, short(5,7)
 Rdc(1-4): 1.00Ohm Max @ 150KHz, 35mV shorted(5,7)
 TR(7-5:1-4): 1.5 ± 1.3% pol+
 HV(Np to N+75, N-30, N-42): 4000Vdc @ 5mA, 60s

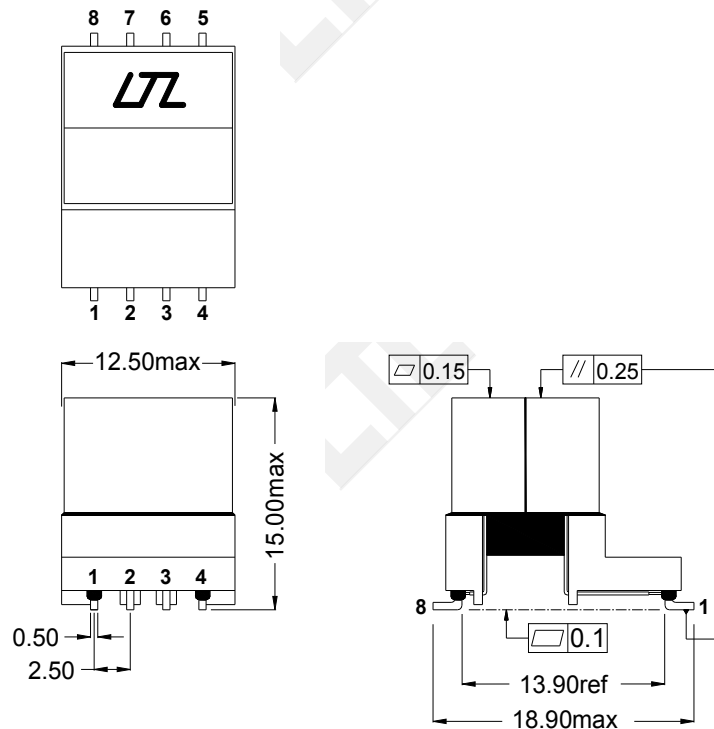


- . The modules to provide excellent result in high performance DSL circuit
- . Power products widely used in switch power supply, lighting and communication

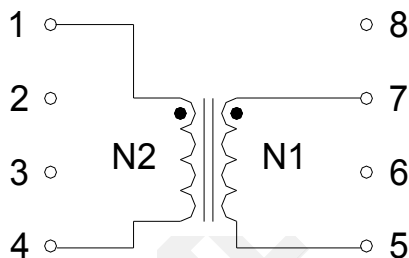


P/N: LEP100260R

Mechanicals:



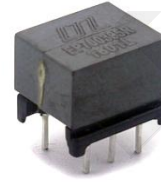
Schematics:



Electrical Specifications: @25°C

- Hi-pot: P1 to P5 2second 4400Vdc,5mA
- T/R(7-5:1-4): 39:(26+/-0.5 turns) @10KHz,100mV,pol+
- OCL (1-4): 95.025~114.975uH @100KHz,100mV
- Ldc(1-4)/L(1-4): ≥95%(or ≥0.95) @100KHz,100mV,100mADC,25°C
- LL(1-4): 2.5~4.0uH @150KHz,35mV,short(5-7)
- Rs(1-4): ≤1.0Ω @150KHz,35mV,shortP(5-7)

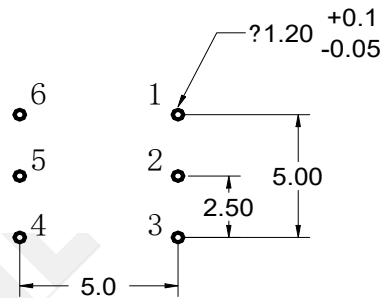
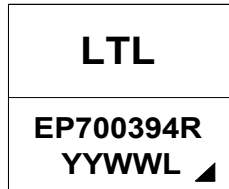
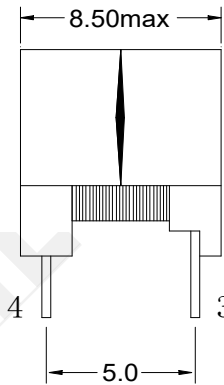
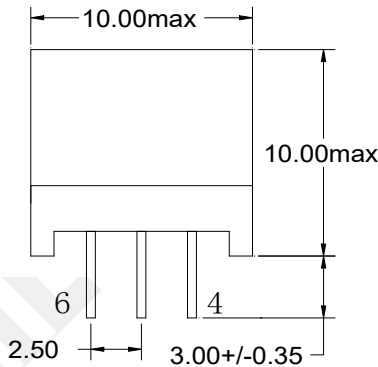
- . EP7 Transformers
- . RoHs Compatible



Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

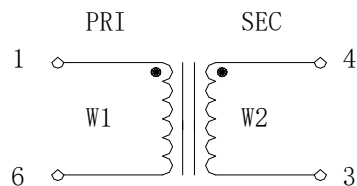
Part Number	Turns Ratio (±3%)	OCL (±5%)	DCR	Isolation Voltage (W1 to W2)	Isolation Voltage (W1,2 to core)	Mechanical	Schematic
		μH	Ω	VDC	VDC		
EP700394R	1:1	65	1.0	500	500		
EP700395R	1:1	90	1.0	500	500		
EP700396R	1:1	55	1.0	500	500		
EP700397R	1:1	60	1.0	500	500		

Mechanicals:

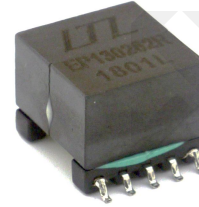


Suggested PCB footprint

Schematics:



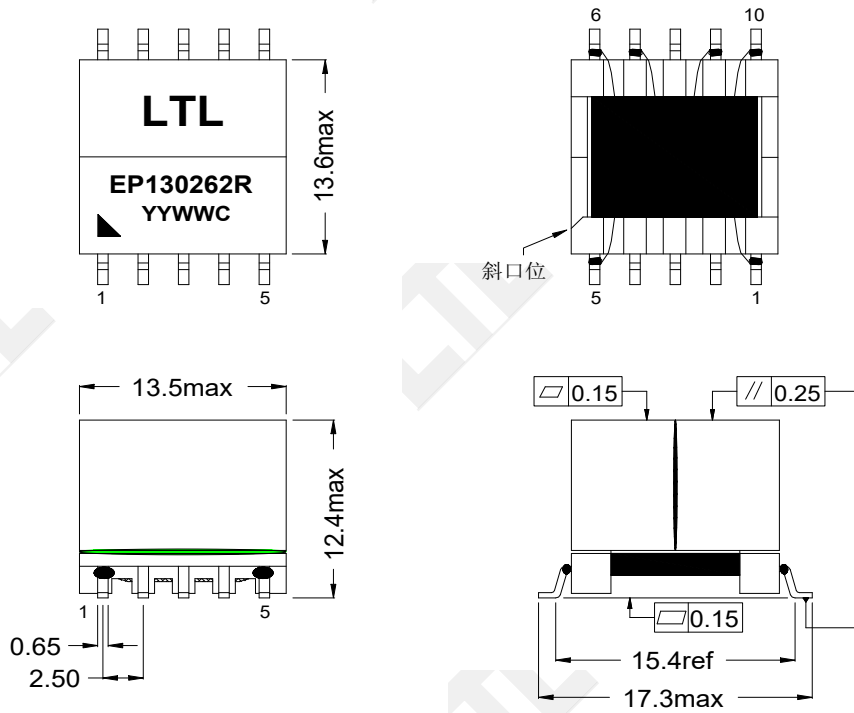
- . EP13 Transformers
- . RoHs Compatible



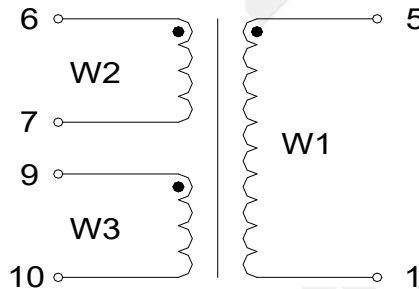
Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Turns Ratio (±3%)	Turns Ratio (±3%)	OCL (±5%)	Isolation Voltage (W1 to W2)	Isolation Voltage (W2 to W3)	Mechanical	Schematic
	W1:W2	W1:W3	mH	VAC	VAC		
EP130262R	1.251:1	1.251:1	7.6±0.8	2000	500		

Machanicals:



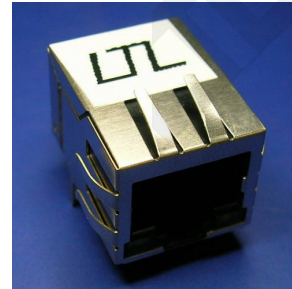
Schematics:





networks and digital cable communication

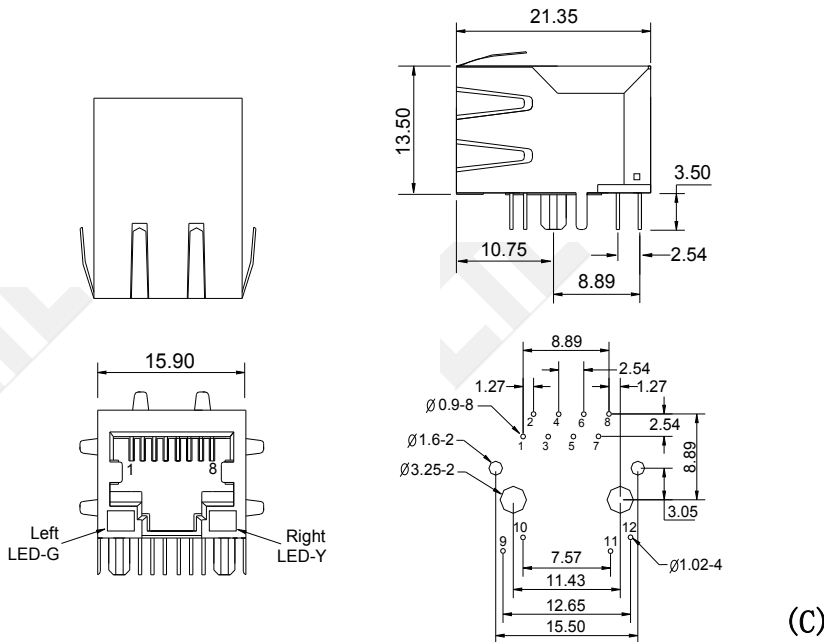
- Designed to meet IEEE802.3 standards including 350μH OCL with 8mA DC bias
- Minimum interwinding breakdown voltage of 1500 Vrms



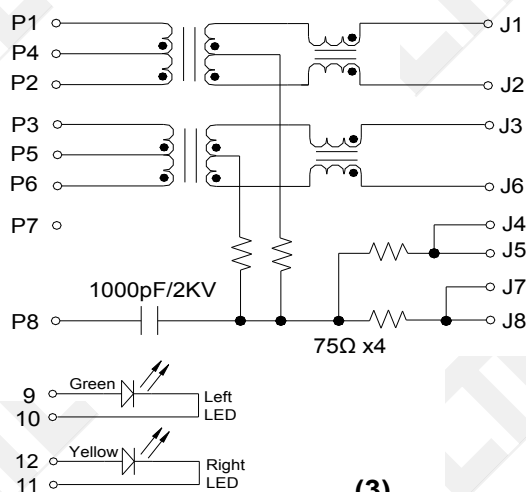
Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	0.3-30MHz	50MHz				
LRJ10126R	1CT:1CT	1CT:1CT	-1.0	-18	-14	-12	-	-30typ	-33	C/(3)

Mechanical



DIMENSION: mm



(3)



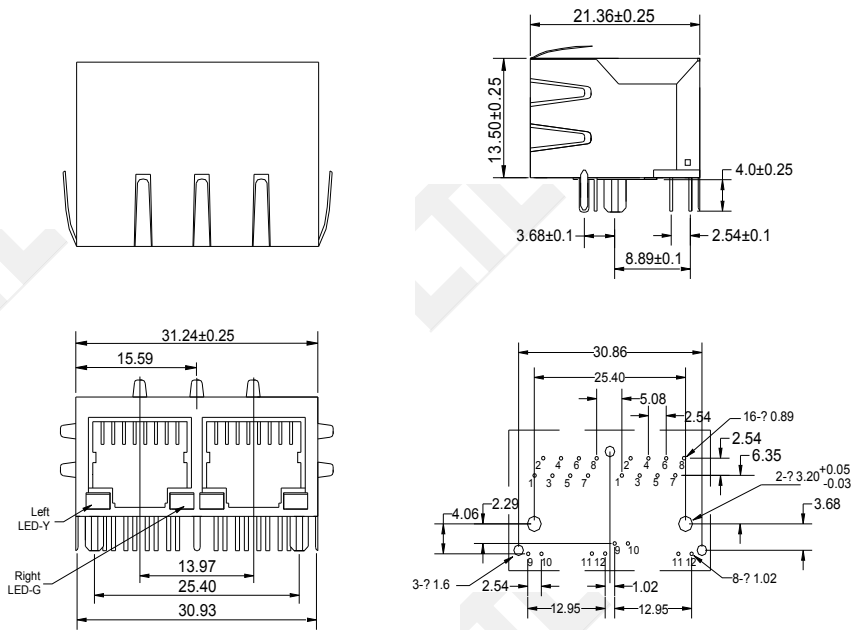
- Products are mainly used in telecommunication, computer networks and digital cable communication
- Designed to meet IEEE802.3 standards including 350μH OCL with 8mA DC bias
- Minimum interwinding breakdown voltage of 1500 Vrms



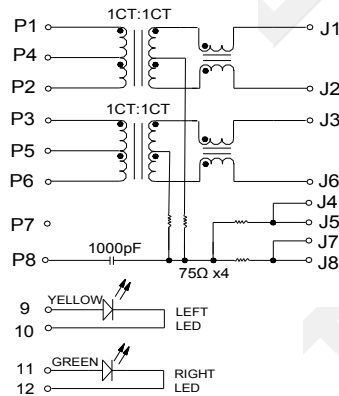
Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	0.3-30MHz	50MHz				
LRJ10127R	1CT:1CT	1CT:1CT	-1.0	-18	-14.5	-12	-	-30typ	-33	-

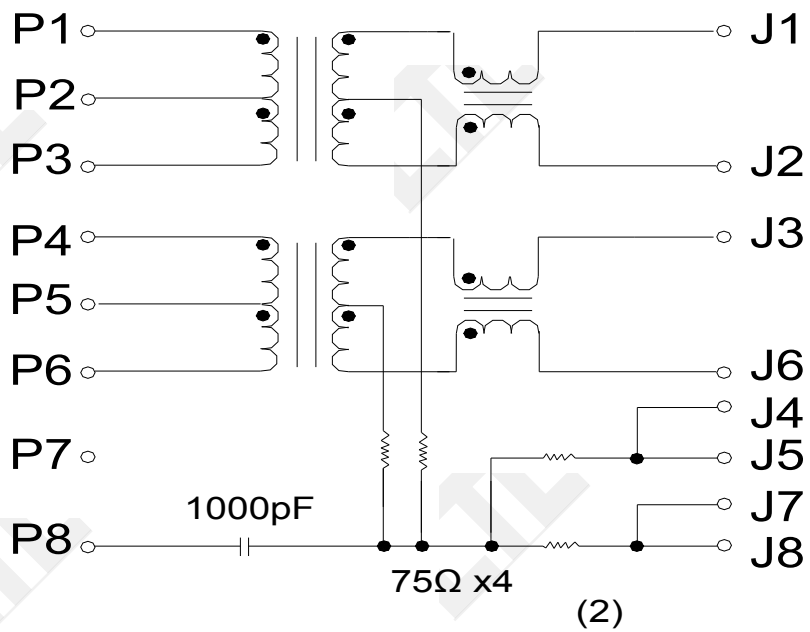
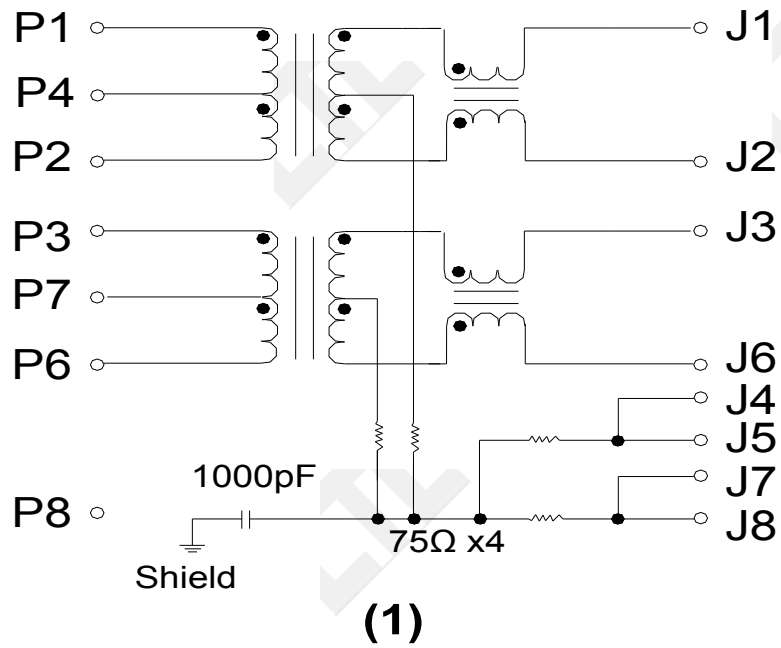
Mechanical



Schematics



Schematics





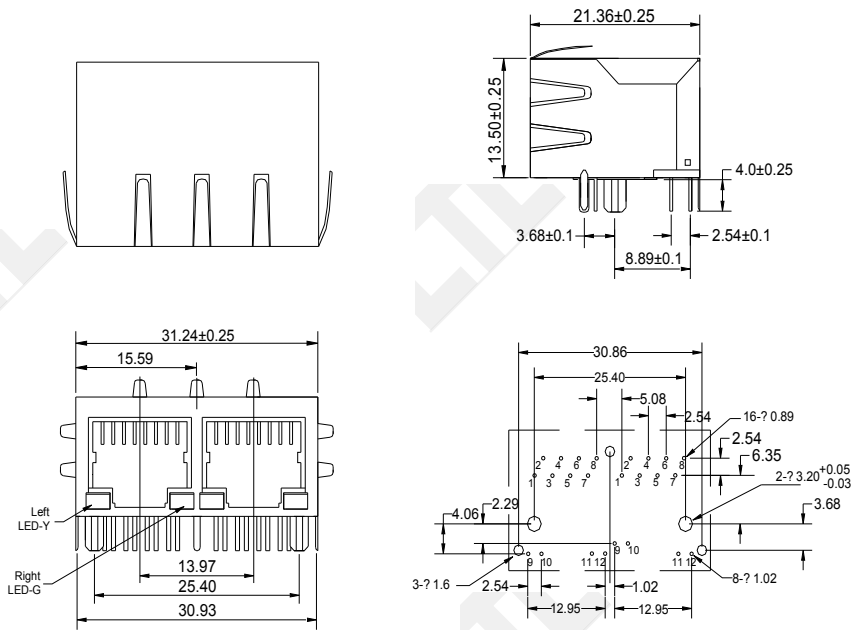
- Products are mainly used in telecommunication, computer networks and digital cable communication
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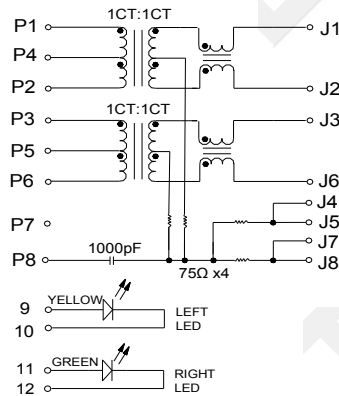
Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	0.3-30MHz	50MHz				
LRJ10127R	1CT:1CT	1CT:1CT	-1.0	-18	-14.5	-12	-	-30typ	-33	-

Mechanical

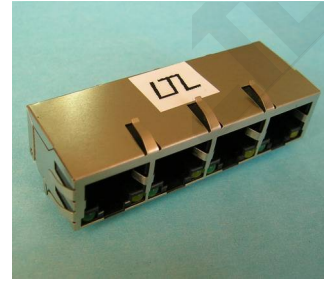


Schematics





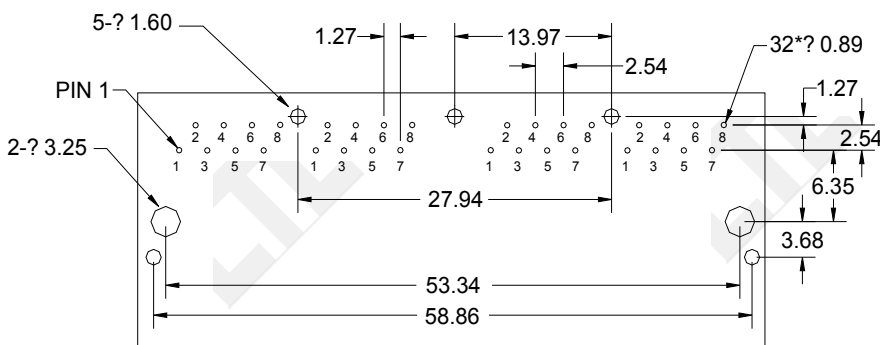
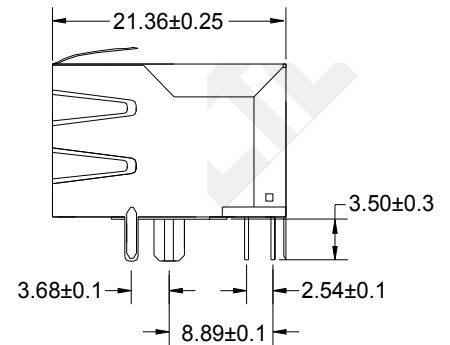
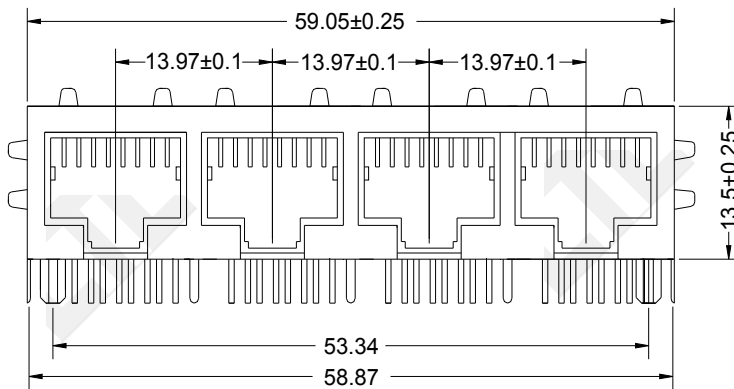
- Products are mainly used in telecommunication, computer networks and digital cable communication
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- Minimum interwinding breakdown voltage of 1500 Vrms



Electrical Specification @ 25°C - Operating Temperature -40°C to 85°C

Part Number	Turns Ratio (±3%)		Insertion Loss (db Max)	Return Loss (db Min)			Differential to Common Mode Rejection (db Min)	Common to Common Mode Rejection (db Min)	Crosstalk (db Min)	Mechanical / Schematics
	Tx	Rx		0.1-100MHz	0.3-30MHz	50MHz				
LRJ00128R	1CT:1CT	1CT:1CT	-1.0	-18	-14.5	-12	-	-30typ	-33	A/ (1)
LRJ10130R	1CT:1CT	1CT:1CT	-1.0	-18	-14.5	-12	-	-30typ	-33	B/ (2)
LRJ10131R	1CT:1CT	1CT:1CT	-1.0	-18	-13.6	-12	-	-35typ	-40typ	C/ (3)

Mechanical

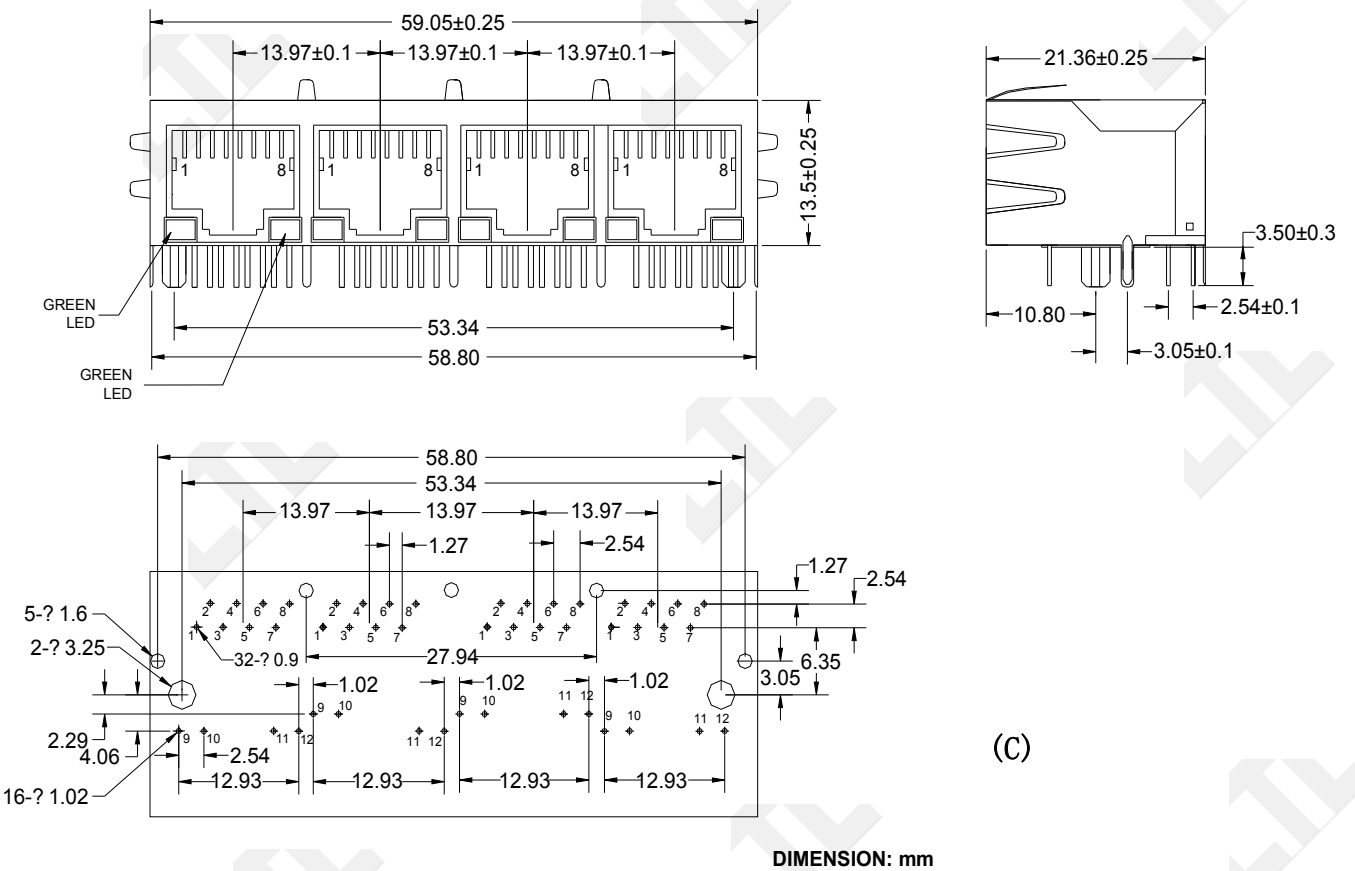
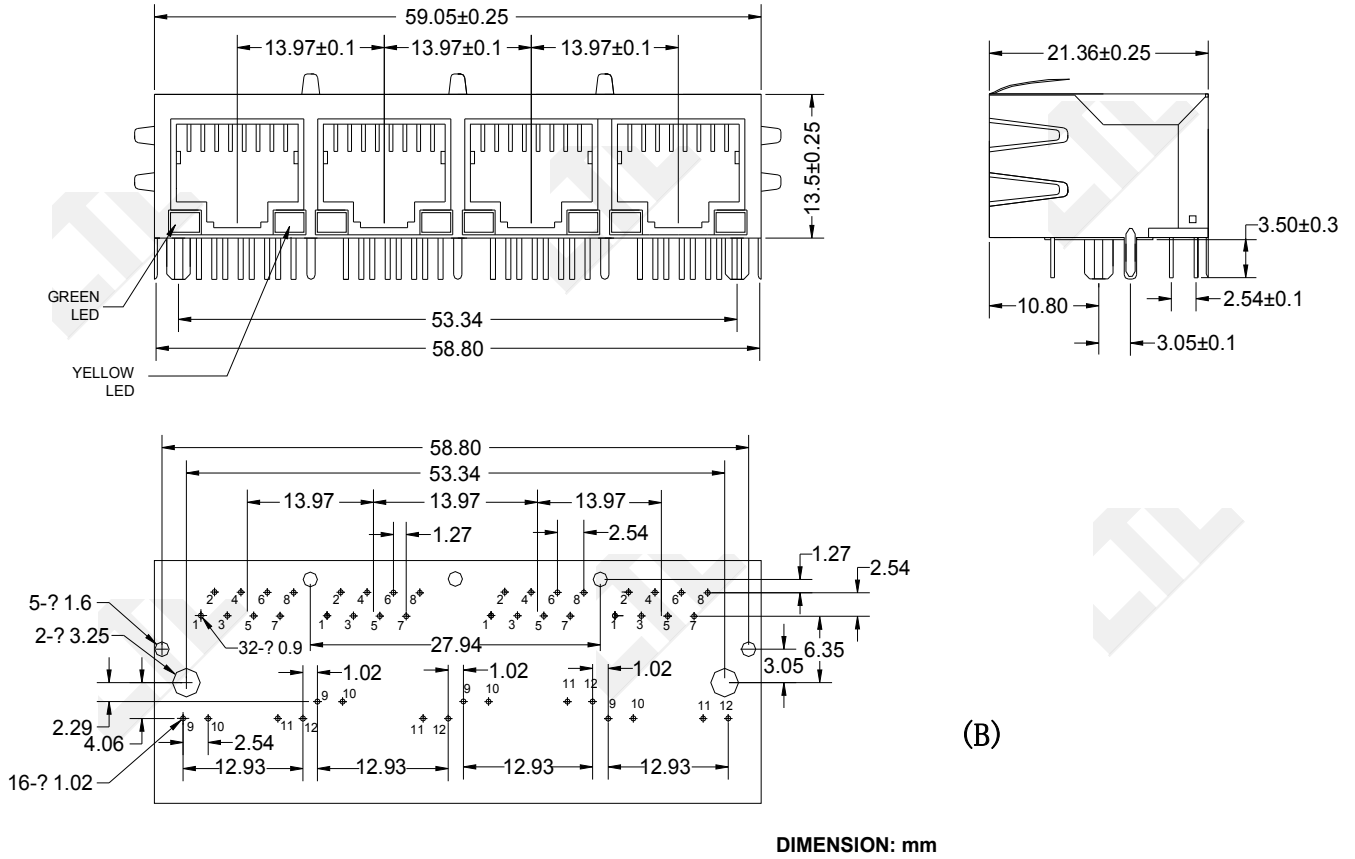


PCB board layout

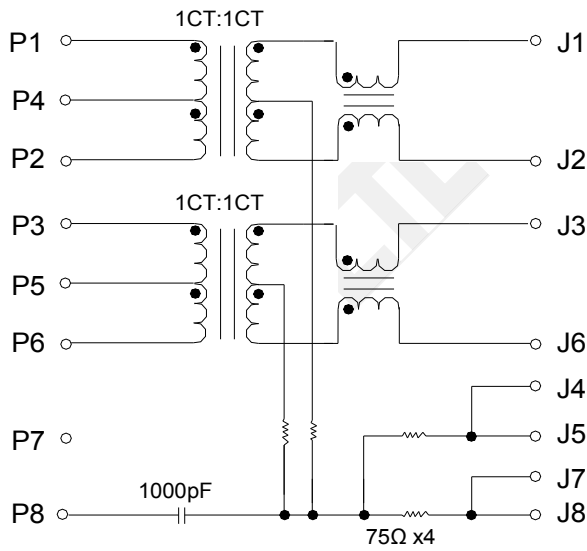
DIMENSION: mm

(A)

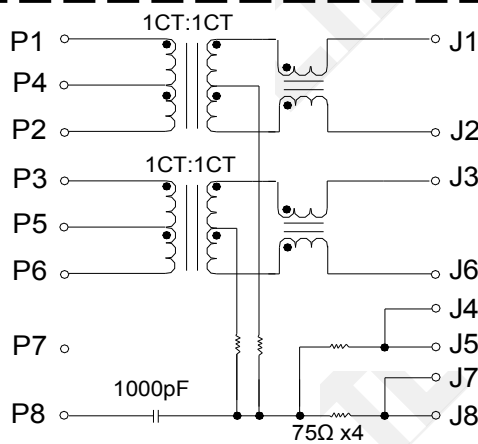
Mechanical



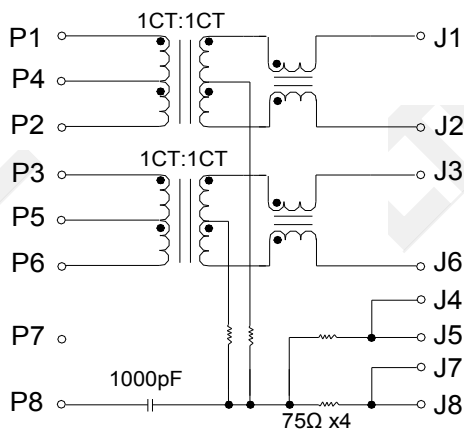
Schematics



(1)



(2)



(3)

中山市聯達利電子有限公司
LTL ELECTRONICS CO., LTD

中國廣東省中山市小欖鎮
東升開發區萬昌路16號。



#16, Dongsheng Industry Zone,
Wanchang Road,
Dongsheng Town, Zhongshan
CityGuangdong Province,
P. R. China



0760 - 2820688、
0760-2820789、
0760-2822788



LTL@LTL.COM.CN



<http://www.ltl-china.com/>

