

CONTENT (EMI SUPPRESSION COMPONENTS)

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Ordering Code

SPT 1207 000 0 A P

PRODUCT CODE

SPT : SMD Pulse Transformer

DIMENSION (L X W)

CODE	L x W
1207	12.7 x 8.7 mm
1605	16.5 x 10.3mm
1705	17.5 x 14.6 mm
0302	3.2 x 3.2 mm
0405	4.5 x 3.2 mm

BASE-T

000=10/100M Base-T

010=1.0G Base-T

025=2.5G Base-T

050=5.0G Base-T

100=10G Base-T

PRODUCT CATEGORIES

0= Chip Lan Transformer Module

1= Pulse Transformer

PIN SPACING

A=1.27 mm

B=1.27 mm Reverse

C=1.00 mm

D=1.00 mm Reverse

N=0.00 mm

PACKAGING CODE

P = Embossed Tape(7")

Chip Lan Transformer Module

■ Feature

Chip LAN helps Ethernet and LAN-based application developers save valuable board space and increase design flexibility while meeting dynamic data line requirements. Chip LAN module can be directly soldered to the motherboard to replace the original traditional transformer and are fully compatible with the traditional transformer performance, fully automated production, stable quality, short delivery time.

■ Application

The main covered devices are: 5G small base station, WiFi router, Switch, Set top box, Mother board, NB, Desktop PC, IPC, Digital appliance, Cable modem, Smart/Android TV, VoIP phone.

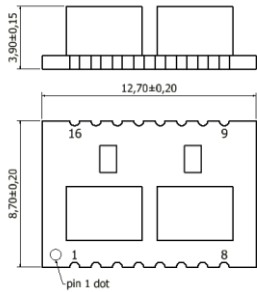
■ Part Numbers & Characteristics (General Purpose)

● Chip Lan -10/100 Base-T

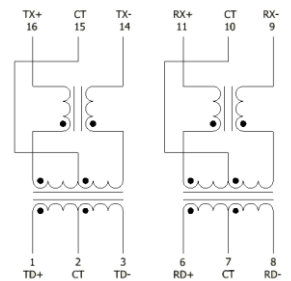
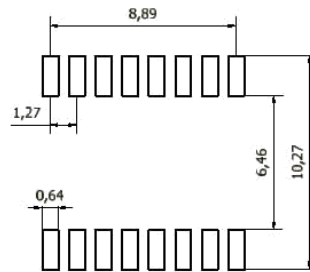
DARFON P/N	Inductance 100kHz/ 0.1V @0mA DC bias (μH)Min	Insertion loss [1 to 100MHz] (dB)Max.	Return Loss (dB)Min.@100Ω			Differential to Common Mode Rejection Ratio (dB)Min.		Crosstalk (dB)Min.	Hi-pot (Vrms) 60sec.	Packing
			1-30MHz	30-60MHz	60-100MHz	1-60MHz	60-100MHz			
SPT12070000AP	350	-1.0	-18	-14	-12	-35	-33	-35	1500	800

※OPERATING TEMPERATURE RANGE: -40 °C TO +85 °C

※STORAGE TEMPERATURE RANGE: +20 °C TO +25 °C



UNIT: mm



● Chip Lan -1G Base-T

DARFON P/N	Inductance 100kHz/ 0.1V @0mA DC bias (μH)Min	Insertion loss [1 to 100MHz] (dB)Max	Return Loss (dB)Min.@100Ω			Differential to Common Mode Rejection Ratio (dB)Min.		Crosstalk (dB)Min. 1-500 MHz	Hi-pot (Vrms) 60sec.	Packing
			1-30MHz	30-80MHz	80-100MHz	1-60MHz	60-100MHz			
SPT17050100AP	350	-1.0	-18	-12	-10	-35	-30	-35	1500	400
SPT17050100BP										
SPT16050100AP										
SPT16050100BP										
SPT16050100CP										
SPT16050100DP										

※OPERATING TEMPERATURE RANGE: -40 °C TO +85 °C

※STORAGE TEMPERATURE RANGE: +20 °C TO +25 °C

This catalog contains typical product specifications. When you consider using our products, please check our product specification sheets. (Characteristic diagram, reliability information, application notes... etc.)

● Chip Lan-2.5G Base-T

DARFON P/N	Inductance 100kHz/ 0.1V @0mA DC bias (μ H)Min	Insertion loss (dB)Max		Return Loss (dB)Min.@100 Ω			Differential to Common Mode Rejection Ratio (dB)Min.				Crosstalk (dB)Min. 1-500 MHz	Hi-pot (Vrms) 60sec.	Packing
		1-50MHz	50-125 MHz	1-40 MHz	80MHz	125MHz	1-40 MHz	60MHz	100MHz	125MHz			
SPT17050250AP	180	-0.5	-1.0	-16	-13	-11	-48	-42	-38	-36	-35	1500	400
SPT17050250BP													
SPT16050250AP													
SPT16050250BP													
SPT16050250CP													
SPT16050250DP													

※OPERATING TEMPERATURE RANGE: -40 °C TO +85 °C

※STORAGE TEMPERATURE RANGE: +20 °C TO +25 °C

● Chip Lan -5G Base-T

DARFON P/N	Inductance 100kHz/ 0.1V @0mA DC bias (μ H)Min	Insertion loss (dB)Max		Return Loss (dB)Min.@100 Ω		Differential to Common Mode Rejection Ratio (dB)Min.		Crosstalk (dB)Min. 1-250 MHz	Hi-pot (Vrms) 60sec.	Packing
		1-100MHz	100-250MHz	1-40MHz	$40 \leq f \leq 250$ MHz	1-250MHz	$30 \leq f \leq 250$ MHz			
SPT17050500AP	180	-1.0	-2.0	-16	$-16+10\log(f/40)$	-48	$-44+19.2\log(f/50)$	-35	1500	400
SPT17050500BP										
SPT16050500AP										
SPT16050500BP										
SPT16050500CP										
SPT16050500DP										

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※STORAGE TEMPERATURE RANGE: +20 °C TO +25 °C

● Chip Lan -10G Base-T

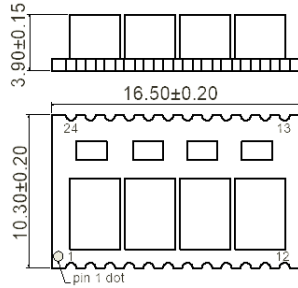
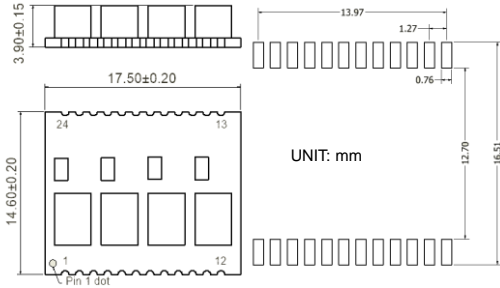
DARFON P/N	Inductance 100kHz/ 0.1V @0mA DC bias (μ H)Min	Insertion loss (dB)Max.		Return Loss (dB)Min.@100 Ω		Differential to Common Mode Rejection Ratio (dB)Min.		Crosstalk (dB)Min. 1-500MHz.	Hi-pot (Vrms) 60sec.	Packing
		1-300MHz	300-500MHz	1-40MHz	$40 \leq f \leq 500$ MHz	1-250MHz	250-500MHz			
SPT17051000AP	120	-1.0	-2.0	-18	$-18+10\log(f/40)$	-30	-22	-30	1500	400
SPT17051000BP										
SPT16051000AP										
SPT16051000BP										
SPT16051000CP										
SPT16051000DP										

※OPERATING TEMPERATURE RANGE: -40 °C TO +85 °C

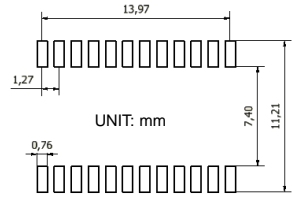
※STORAGE TEMPERATURE RANGE: +20 °C TO +25 °C

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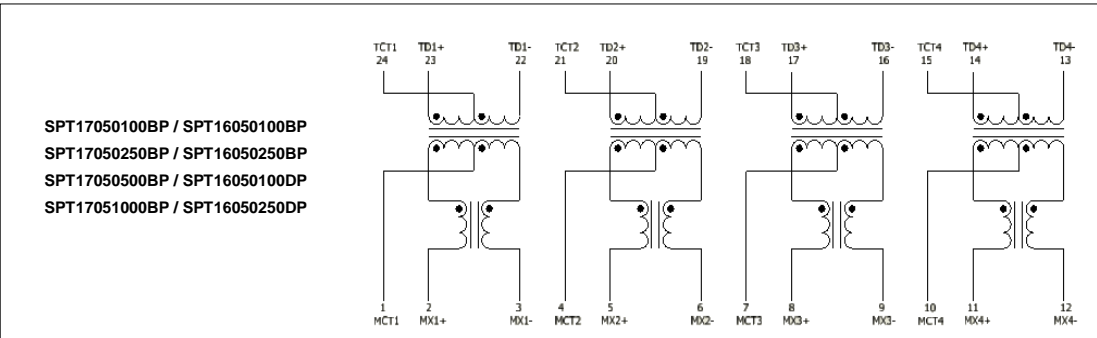
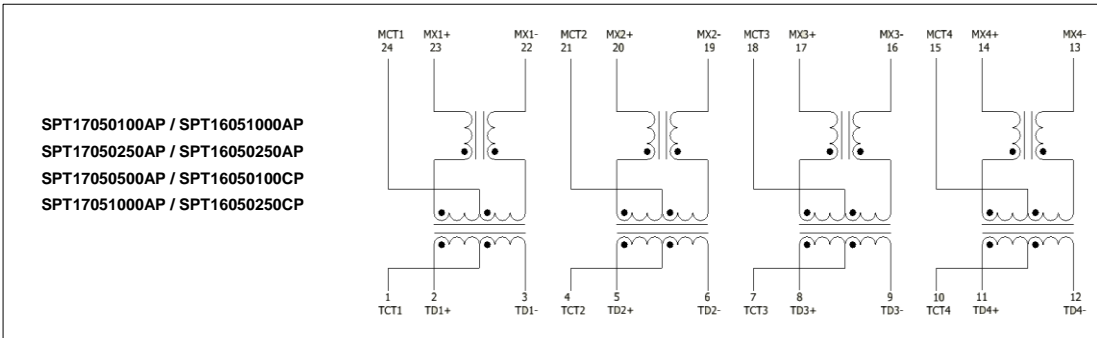
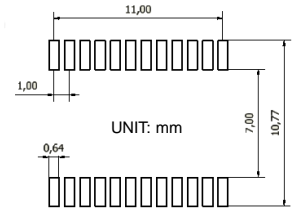
SPT17050100AP / SPT17050100BP
 SPT17050250AP / SPT17050250BP
 SPT17050500AP / SPT17050500BP
 SPT17051000AP / SPT17051000BP



SPT16050100AP / SPT16050100BP
 SPT16050250AP / SPT16050250BP



SPT16050100CP / SPT16050100DP
 SPT16050250CP / SPT16050250DP



Pulse Transformer

Feature

Feature: Chip LAN helps Ethernet and LAN-based application developers save valuable board space and increase design flexibility while meeting dynamic data line requirements.

Application

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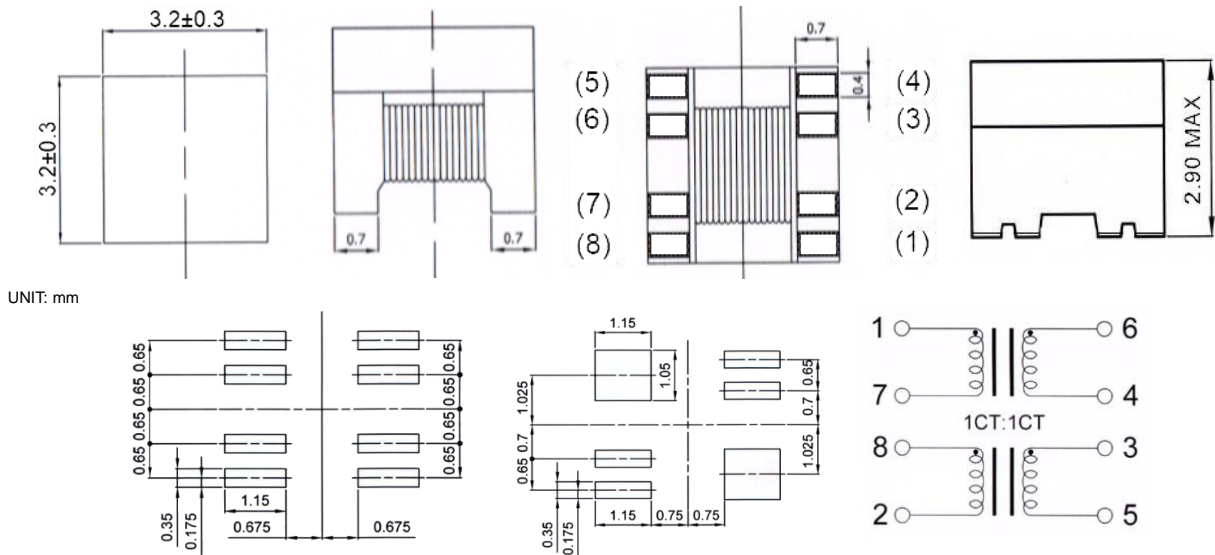
Part Numbers & Characteristics (General Purpose)

Lan Transformer- 3.2 x 3.2

DARFON P/N	Inductance [DC bias 8mA, 100KHz] Pin(1)(2) · short(7)(8) Pin(5)(6) · short(3)(4) (μ H)Min.	Insertion loss [0.1 to 100MHz] (dB)Max.	Inter-winding capacitance [100KHz] (pF)Max.	Turn ratio
SPT03020001NP	150	2.5	25	1CT:1CT
SPT03020101NP				

※OPERATING TEMPERATURE RANGE: -40 °C TO +85 °C

※STORAGE TEMPERATURE RANGE: +20 °C TO +25 °C



Pulse Transformer

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● Lan Transformer - 4.5 x 3.2

DARFON P/N	Inductance [DC bias, 100KHz] Pin(1)(2) · short(7)(8) Pin(5)(6) · short(3)(4) (μ H)Min.	Insertion loss [0.1 to 150MHz] (dB)Max.	Insertion loss [150 to 500MHz] (dB)Max.	Inter-winding capacitance [100KHz] (pF)Max.	Turn ratio	Hi-pot (Vrms) 60sec.	Packing
SPT04051001NP	120	0.5	1.5	35	1CT:1CT	1500	2000

※OPERATING TEMPERATURE RANGE: -40 °C TO +85 °C

※STORAGE TEMPERATURE RANGE: +20 °C TO +25 °C

DARFON P/N	Inductance [DC bias 8mA, 100KHz] Pin(1)(2) · short(7)(8) Pin(5)(6) · short(3)(4) (μ H)Min.	Insertion loss [1 to 200MHz] (dB)Max	Inter-winding capacitance [100KHz] (pF)Max.	Turn ratio	Packing
SPT04050251NP	180	1.5	35	1CT:1CT	2000
SPT04050501NP					

※OPERATING TEMPERATURE RANGE: -40 °C TO +85 °C

※STORAGE TEMPERATURE RANGE: +20 °C TO +25 °C

DARFON P/N	Inductance [DC bias 8mA, 100KHz] Pin(1)(2) · short(7)(8) Pin(5)(6) · short(3)(4) (μ H)Min.	Insertion loss [0.1 to 100MHz] (dB)Max	Inter-winding capacitance [100KHz] (pF)Max.	Turn ratio	Packing
SPT04050101NP	200	1.5	35	1CT:1CT	2000

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