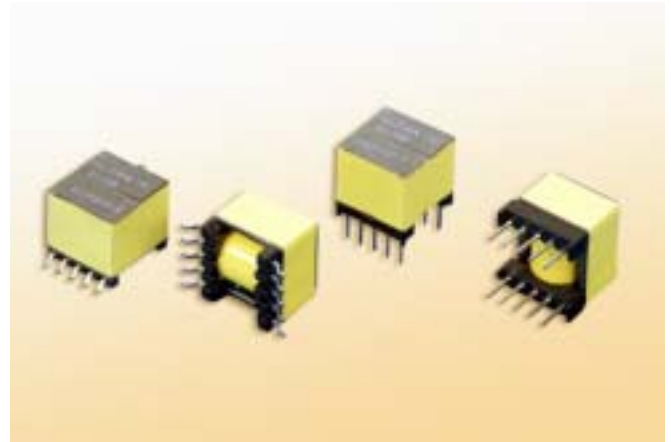


IC - ADSL Transformer Selection Guide

Talema has designed a cost effective range of transformers and inductors for ADSL applications. The units are available in the most popular small footprints in both thru hole and surface mount configurations. The transformers are matched to all leading chip sets and meet the requirements of ANSI and ETSI standards while offering very low THD, permitting maximum loop length.



IC - ADSL Transformer Selection Guide

IC Manufacturer	IC Part Number	Application	Turns Ratio Line : Chip	Isolation Voltage	Inductance Line Side	Talema Part Number
Alcatel	MTK20130/140/150	CO	2 : 1	1500	410µH	AEP210 / AE-230
	MTK20130/140/141/150/152	CPE	1 : 1	1500	480µH	AEP220
	MTK20131	CPE	1 : 1	2000	440µH	APT200
	MTK20450	CO/CPE	2 : 1	1500	410µH	AEP210 / AE-230
Analog Devices	AD20MSP910/918	CO/CPE	1 : 1	1500	5.0mH	AEP100 / AEP140
	AD20MSP918	CO	1.27 : 1	1500	3.22mH	AEP110
	AD20MSP930	CO	1.11 : 1	1500	2.03mH	AEP120
	AD20MSP930	CPE	1.2 : 1	1500	2.42mH	AEP130
Centillium	CT-L21SC08/CT-L41SC04	CO	1 : 1	1500	462µH	AEP1000
	CT-L50SC04/CT-L50ST81	CO/CPE	1.8 : 1	1500	462µH	AEP1010
	CT-L10AT01-1T		1 : 1.1	1500	364µH	AEP1020
Conexant	328R58-001 / 328R57-001	CO/CPE	2 : 1	1500	800µH	AEP1100
Fujitsu	MB86670	CO	2 : 1	1500	2.0mH	AEP800
Globespan	G7000	CPE	1 : 1	1500	435µH	AEP500
	G7000	CO	1.4 : 1	1500	441µH	AEP510
	EL-1501	CPE	1 : 1	1500	407µH	AEP520 / AEP530
	EL-1501	CO	1 : 1.4	1500	483µH	AEP540
	G7266	CO	1.41 : 1	1500	474µH	AEP550
	G7266RT		2 : 1	1500	440µH	AEP560
ITEX	i80134 / i80234	CPE	1 : 1	1500	462µH	AEP700
Legerity (AMD)	AMDSL134	CO	2 : 1	1500	410µH	AEP900
	AMDSL134	CPE	1 : 1	1500	410µH	AEP910
Linear Tech	LT1497		1 : 1.1	1500	364µH	AEP1020
Lucent	Wildwire	CO	1 : 1	1500	490µH	AEP610
	Wildwire	CPE	1 : 1	1500	1.23mH	AEP600
Motorola	MC03AX1456RT	CPE	1 : 1.8	1500	3.96mH	AEP300 / AEP330
	MC03AX1456	CO/CPE	1.2 : 1	1500	3.96mH	AEP310
	MC143460 / MC143462		1.2 : 1	1500	3.96mH	AEP320
TI	TNET D4000R		1.423 : 1	1500	1.5mH	AEP400
	TNET D4000C/P		1.95 : 1	1500	1.5mH	AEP410
	TNET D3000C/P		1.423 : 1	1500	1.5mH	AEP400



AEP Series Electrical Specifications @ 25°C

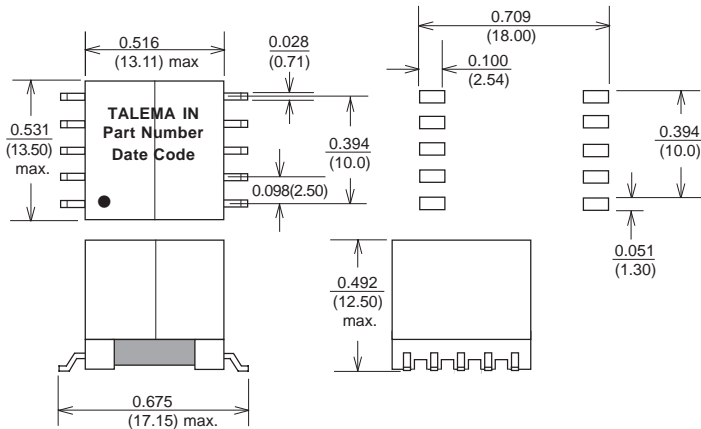
Operating Temperature -40° to +85°C

Part Number	Package	Schematic	Turns Ratio ±2% Line : IC	L _P	L _L (µH) Max	C _w - w (pF) Max	DCR (Ohms) Max Line / IC	THD (Linearity) Typical	Longitudinal Balance Min	Insertion Loss Max	Freq. Response Max	Isolation Voltage (Vrms)
AEP100-S AEP100-T	SMD TH	1	1 : 1	5.0mH ±10%	25	60	3.00/3.00	-80dB 30kHz	-46dB 10kHz-1.1MHz	0.5dB 300kHz	1.0dB 30kHz-1.1MHz	1500
AEP110-S AEP110-T	SMD TH	1	1.27 : 1	3.22mH ±10%	7.5	50	2.45/2.00	-80dB 30kHz	-50dB 30kHz-1.1MHz	0.5dB 100kHz	1.0dB 30kHz-1.1MHz	
AEP120-S AEP120-T	SMD TH	1	1.11 : 1	2.03mH Min	10	60	1.30/1.50	-80dB 30kHz	-50dB 30kHz-1.1MHz	0.5dB 100kHz	1.0dB 30kHz-1.1MHz	
AEP130-S AEP130-T	SMD TH	1	1.2 : 1	2.42mH Min	10	50	1.30/1.50	-80dB 30kHz	-50dB 30kHz-1.1MHz	0.5dB 100kHz	1.0dB 30kHz-1.1MHz	
AEP140-S AEP140-T	SMD TH	2	1 : 1	5.0mH ±10%	25	60	3.00/3.00	-80dB 30kHz	-40dB 30kHz-1.1MHz	0.5dB 100kHz	1.0dB 30kHz-1.1MHz	
AEP210-S AEP210-T	SMD TH	3	2 : 1	410µH ±10%	8	50	0.90/0.50	-72dB 20kHz	-40dB 30kHz-1.1MHz	1.0dB 100kHz, 1.1MHz	1.5dB 30kHz-1.1MHz	1500
AEP220-S AEP220-T	SMD TH	2	1 : 1	480µH ±10%	5	50	1.25/1.35	-72dB 10kHz	-40dB 30kHz-1.1MHz	1.0dB 100kHz, 1.1MHz	1.5dB 30kHz-1.1MHz	
AEP230-S AEP230-T	SMD TH	2	2 : 1	410µH ±10%	8	50	0.90/0.50	-72dB 20kHz	-40dB 30kHz-1.1MHz	1.0dB 100kHz, 1.1MHz	1.5dB 30kHz-1.1MHz	
AEP300-S AEP300-T	SMD TH	4	1 : 1.8	3.96mH ±5%	25	50	4.40/8.00	-80dB 30kHz	-40dB 25kHz-1MHz	0.5dB 100kHz	0.5dB 30kHz-1.1MHz	1500
AEP310-S AEP310-T	SMD TH	4	1.2 : 1	3.96mH ±5%	15	50	4.20/3.80	-80dB 100kHz	-40dB 25kHz-1MHz	0.5dB 100kHz	0.5dB 30kHz-1.1MHz	
AEP320-S AEP320-T	SMD TH	5	1.2 : 1	3.96mH ±5%	15	50	2.90/2.50	-80dB 100kHz	-40dB 25kHz-1MHz	0.5dB 100kHz	0.5dB 30kHz-1.1MHz	
AEP330-S AEP330-T	SMD TH	5	1 : 1.8	3.96mH ±5%	25	60	4.40/8.00	-80dB 30kHz	-40dB 25kHz-1MHz	0.5dB 100kHz	0.5dB 30kHz-1.1MHz	
AEP400-S AEP400-T	SMD TH	8	1.423 : 1	1.5mH ±6%	18	40	1.75/0.80	-80dB 100kHz	-50dB 30kHz-1.1MHz	0.5dB 300kHz	0.5dB 30kHz-1.1MHz	1500
AEP410-S AEP410-T	SMD TH	8	1.95 : 1	1.5mH ±6%	12	45	1.55/0.90	-80dB 100kHz	-50dB 30kHz-1.1MHz	0.5dB 300kHz	0.5dB 30kHz-1.1MHz	
AEP500-S	SMD	3	2 : 1	435µH ±6%	10	40	1.30/1.50	-80dB 100kHz	-40dB 25kHz-1.1MHz	0.5dB 722kHz	0.5dB 30kHz-1.1MHz	1500
AEP510-T AEP510-S	TH SMD	3	1.4 : 1	441µH ±6%	6	40	1.05/0.85	-70dB 200kHz	-60dB 20kHz-1.1MHz	0.5dB 722kHz	1.0dB 150kHz-1.5MHz	
AEP520-T AEP520-S	TH SMD	2	1 : 1	407µH ±6%	10	40	1.40/1.20	-85dB 100kHz	-50dB 30kHz-1.1MHz	0.5dB 722kHz	3.0dB 30kHz-2.0MHz	
AEP530-T AEP530-S	TH SMD	7 3	1 : 1	407µH ±6%	10	40	1.40/1.20	-85dB 100kHz	-50dB 30kHz-1.1MHz	0.5dB 722kHz	3.0dB 30kHz-2.0MHz	
AEP540-T AEP540-S	TH SMD	2	1 : 1.4	483µH ±10%	10	50	1.30/2.45	-85dB 100kHz	-50dB 30kHz-1.1MHz	0.5dB 722kHz	3.0dB 30kHz-2.0MHz	
AEP550-T AEP550-S	TH SMD	6	1.41 : 1	474µH ±10%	12	40	1.10/0.85	-80dB 100kHz	-50dB 30kHz-1.1MHz	1.0dB 722kHz	0.5dB 100kHz-1.1MHz	
AEP560-S	SMD	6	2 : 1	440µH ±5%	6	40	1.90/0.95	-80dB 100kHz	-50dB 30kHz-1.1MHz	1.0dB 722kHz	0.5dB 100kHz-1.1MHz	
AEP600-T	TH	3	1 : 1	1.23mH ±6%	10	40	1.40/1.60	-80dB 100kHz	-50dB 30kHz-1.1MHz	0.5dB 300kHz	0.5dB 30kHz-1.1MHz	
AEP610-T	TH	3	1 : 1	490µH ±6%	10	40	1.35/1.50	-80dB 100kHz	-50dB 30kHz-1.1MHz	0.5dB 300kHz	0.5dB 30kHz-1.1MHz	
AEP700-T AEP700-S	TH SMD	2 3	1 : 1	462µH ±6%	10	50	1.35/1.55	-80dB 30kHz	-40dB 20kHz-1.1MHz	0.5dB 772kHz	1.25dB 30kHz-1.1MHz	
AEP800-T AEP800-S	TH SMD	9	2 : 1	2.0mH ±6%	12	60	2.50/1.30	-80dB 100kHz	-40dB 30kHz-1.1MHz	0.5dB 100kHz	0.5dB 30kHz-1.1MHz	1500
AEP900-T AEP900-S	TH SMD	3	2 : 1	410µH ±10%	8	60	0.90/0.50	-80dB 100kHz	-40dB 25kHz-1MHz	0.5dB 100kHz	1.0dB 30kHz-1.1MHz	1500
AEP910-T AEP910-S	TH SMD	3	1 : 1	410µH ±10%	8	60	0.90/1.00	-80dB 100kHz	-40dB 25kHz-1MHz	0.5dB 100kHz	1.0dB 30kHz-1.1MHz	
AEP1000-T AEP1000-S	TH SMD	2	1 : 1	462µH ±10%	5	60	1.30/1.30	-67dB 10kHz	-50dB 10kHz-1.1MHz	0.5dB 100kHz	1.0dB 30kHz-1.1MHz	1500
AEP1010-T AEP1010-S	TH SMD	2	1.8 : 1	462µH ±10%	10	70	1.39/0.90	-67dB 10kHz	-50dB 10kHz-1.1MHz	0.5dB 100kHz	1.0dB 30kHz-1.1MHz	
AEP1020-S	SMD	10	1 : 1.1	364µH ±5%	11	60	2.10/2.20	-67dB 10kHz	-45dB 20kHz-1.1MHz	1.5dB 500kHz	1.0dB 40kHz-1.1MHz	
AEP1100-T AEP1100-S	TH SMD	6 5	2 : 1	800µH ±10%	10	50	1.48/0.77	-80dB 100kHz	-40dB 25kHz-1MHz	0.5dB 100kHz	1.0dB 30kHz-1.1MHz	1500

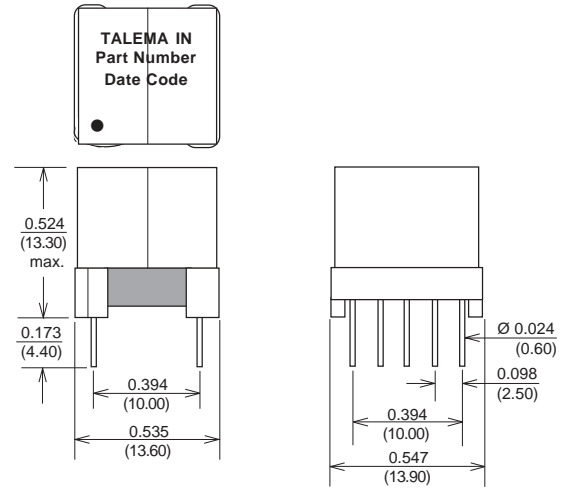
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Packaging and Dimensions • EP13 Style ADSL Transformers

SMD Package "S"



TH Package "T"

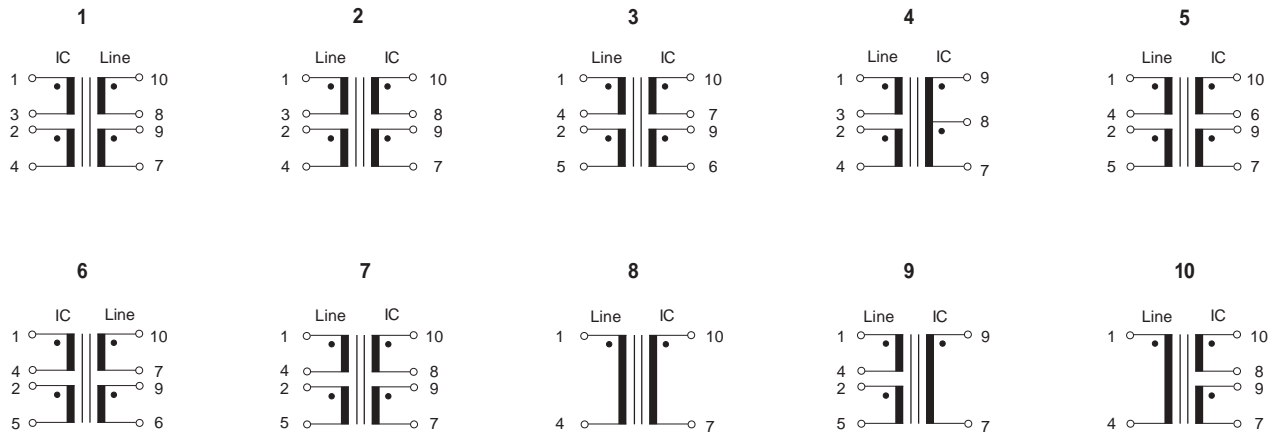


Note: Pin #3 will be removed on the following parts:
 AEP330-S & T
 AEP550-S & T
 AEP1020-S
 AEP1100-S & T

Dimensions: Inches (Millimeters)
 Tolerance: ±0.010 (0.25)

Weight: 6.8 grams

Schematics



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