

LAN COUPLING TRANSFORMERS

10Base-T, 25.6 PHY ATM and ETHERNET SERIES

FEATURES:

- Supports Industry Standard 10Base-T and Ethernet Transceivers
- Designs Support Multiple Data Rate Applications
- Conforms to IEEE/ISO8802.3af Standards Requirements

10BASE -T FILTERS

STANDARD SPECIFICATIONS

Part Number ¹	Turns Ratio ^{3,4}	OCL mH (MIN)	RL ⁵	IL	X-Talk	CMR		C _{sw} pF (MAX)	Cir	Pkg	
			dB 5-10 MHz	dB 1-10 MHz	dB 5-10 MHz	5-10 MHz	50 MHz				100 MHz
ALAN-106 ²	1CT:1CT	140	18	1.0	35	60	55	50	40	5	D
ALAN-107 ²	1CT:1CT	200	18	1.0	35	60	55	50	40	6	D
ALAN-109 ²	1CT:1.41	200	18	5.0 ⁶	50	55	40	35	30	7	E
ALAN-110 ^{2,D}	1 : 1	3000	16	0.6	50	20	25	20	-	11	G
ALAN-111 ²	1CT:1.41CT	200	18	1.0	35	35	45	45	30	8	D
ALAN-115 ²	1CT:1CT	200	20	1.0	35	45	40	30	30	9	F
ALAN-116 ²	1CT:1CT	200	18	1.0	45	50	30	25	30	10	G

10BASE-T TRANSFORMER CONFIGURATIONS

Part Number ¹	Turns Ratio ^{3,4}	OCL mH (MIN)	Primary Pins ³			C _{sw} pF (MAX)	LL mH (MAX)	Hipot VRMS (MIN)	DCR W (MAX)	Cir	Pkg
			XMIT	Col Det	RCV						
APT-114	1CT:1.41CT	140	6-7-8	-	1-2-3	12	0.2	2000	0.3	3	B
APT-122	1CT:1.41CT	110	6-7-8	-	1-2-3	15	0.4	1500	1.0	4	B
APT-127	1CT:2.5CT	200	6-7-8	-	1-2-3	15	0.5	2000	0.4	10 ⁷	B

ETHERNET TRANSFORMER CONFIGURATIONS

Part Number ¹	Turns Ratio ^{3,4}	OCL mH (±20%)	Primary Pins ³			C _{sw} pF (MAX)	LL mH (MAX)	Hipot VRMS (MIN)	DCR W (MAX)	Cir	Pkg
			XMIT	Col Det	RCV						
APT-117	1:1 (X3)	150	1-2	7-8	4-5	12	0.2	2000	0.3	2	B
APT-120	1:1 (X3)	350	1-2	7-8	4-5	16	0.3	2000	0.35	2	B
APT-123-101	1:1 (X3)	100	1-2	7-8	4-5	10	0.25	2000	0.25	2	B
APT-123-151	1:1 (X3)	150	1-2	7-8	4-5	10	0.3	2000	0.3	2	B
APT-123-750	1:1 (X3)	75	1-2	7-8	4-5	10	0.2	2000	0.2	2	B
APT-124-101	1:1 (X3)	100	1-2	--	4-5	10	0.25	2000	0.25	2	C
APT-124-151	1:1 (X3)	150	1-2	--	4-5	10	0.3	2000	0.3	2	C
APT-124-750	1:1 (X3)	75	1-2	--	4-5	10	0.2	2000	0.2	2	C
APT-16001	1:1 (X4)	20	1-2,3-4	--	5-6,7-8	6	0.2	1500	0.2	1	A
APT-16002	1:1 (X4)	35	1-2,3-4	--	5-6,7-8	8	0.2	1500	0.2	1	A
APT-16003	1:1 (X4)	50	1-2,3-4	--	5-6,7-8	9	0.35	1500	0.3	1	A
APT-16004	1:1 (X4)	75	1-2,3-4	--	5-6,7-8	10	0.35	1500	0.3	1	A
APT-16005	1:1 (X4)	100	1-2,3-4	--	5-6,7-8	10	0.4	1500	0.35	1	A
APT-16006	1:1 (X4)	150	1-2,3-4	--	5-6,7-8	12	0.4	1500	0.35	1	A
APT-16007	1:1 (X4)	200	1-2,3-4	--	5-6,7-8	15	0.45	1500	0.45	1	A
APT-16008	1:1 (X4)	500	1-2,3-4	--	6-5,7-8	25	0.5	1500	0.45	1	A

Test Conditions:

- A. OCL: 100 mVRMS @ 100 KHz with 0 I_{bc}
 B. R/L measurements assume 100 W media interface
 C. DWV: 1,500 VRMS for 1 minute minimum; greater isolation voltage available
 D. DWV: 600 VRMS for 1 minute minimum



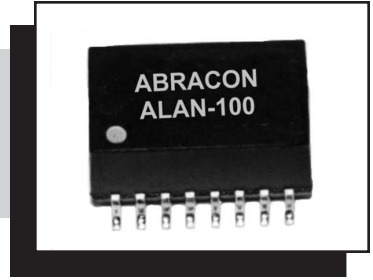
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LAN COUPLING TRANSFORMERS

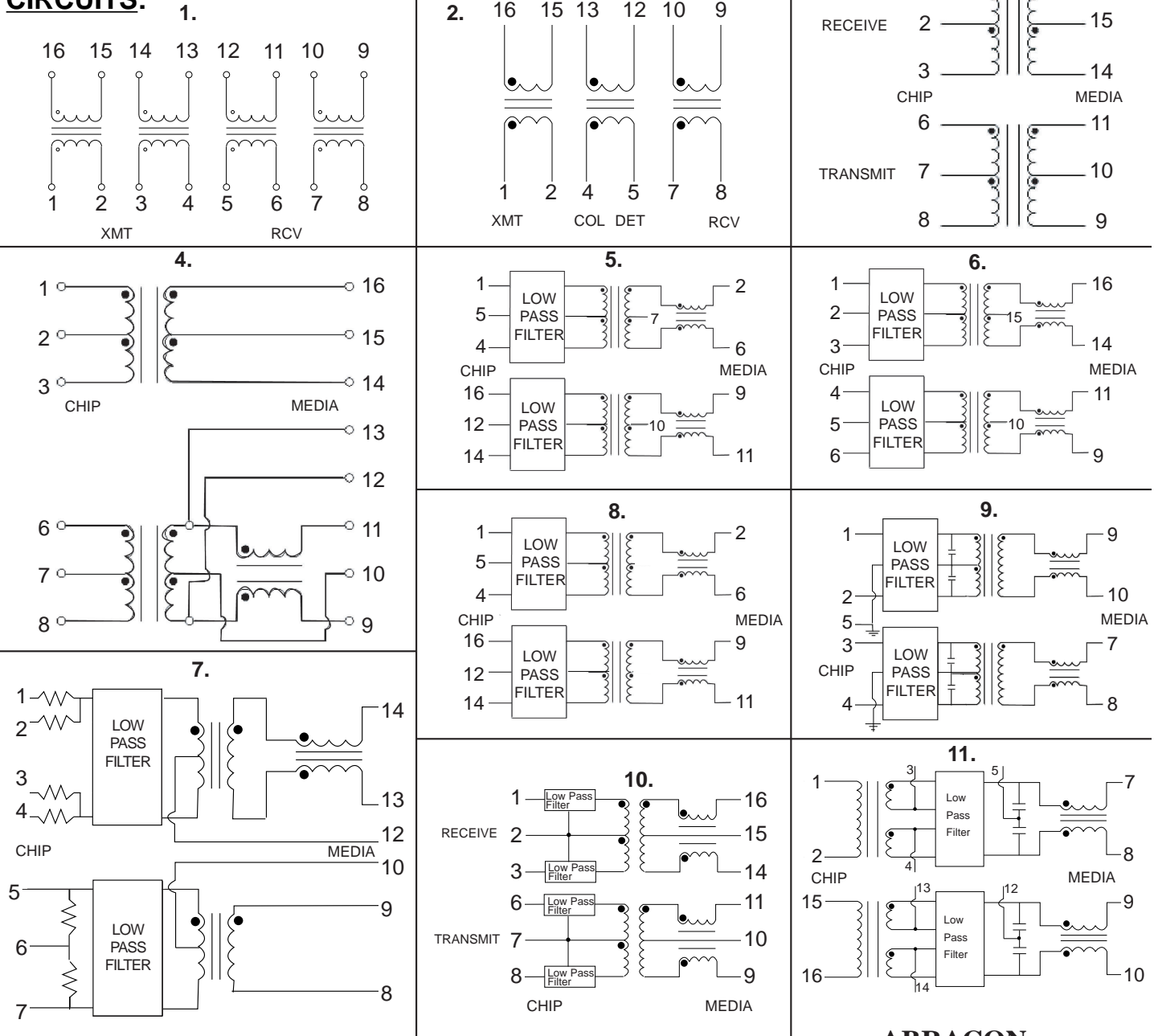
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Notes:

1. P/Ns with "T" as suffix are configured for through-hole applications
2. Designs include low-pass Butterworth filter arrays; See specific data sheet for resistor values
3. Turns ratios are specified: "transceiver : media" with $\pm 2\%$ tolerance
4. "CT" indicates a center-tapped winding, otherwise readings are intended to be across entire winding segment
5. Return loss measured in a 100 W circuit
6. Insertion loss measurement includes resistor array within filter section
7. Transformers without filter elements

CIRCUITS:



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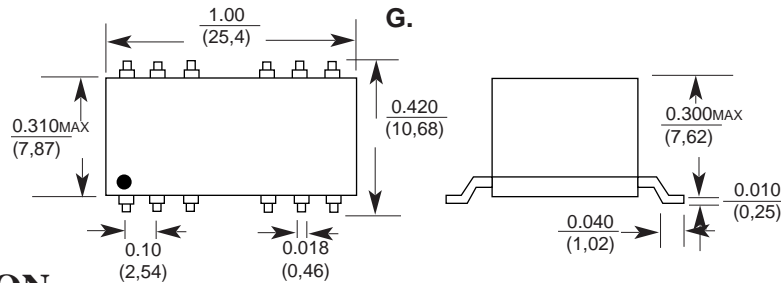
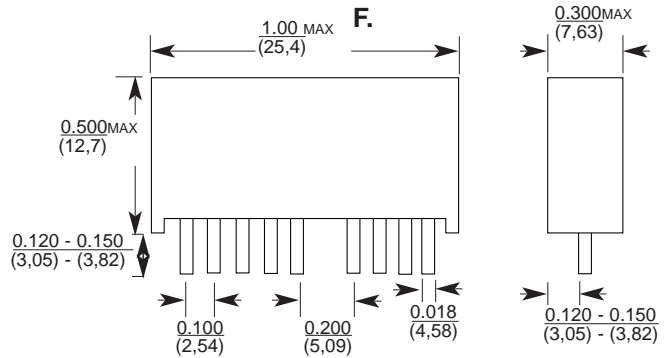
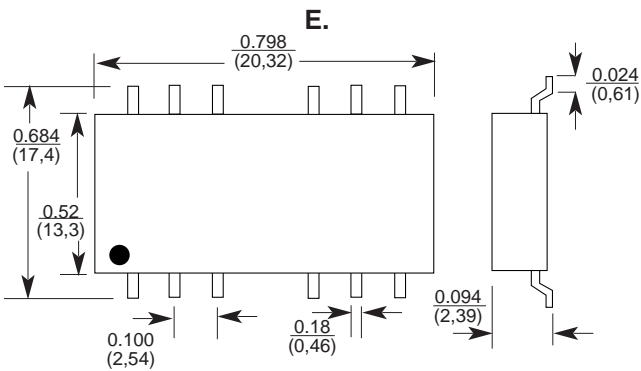
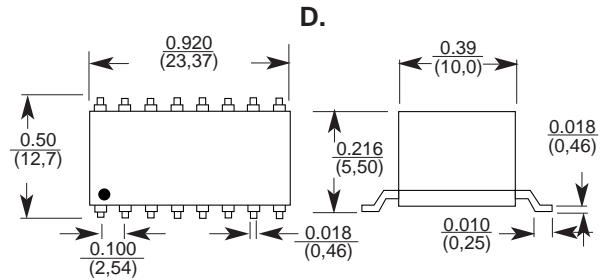
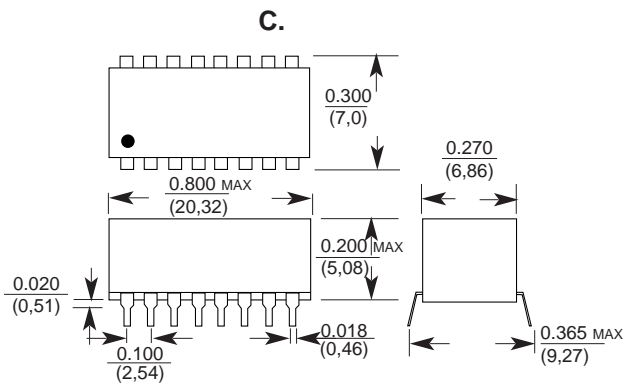
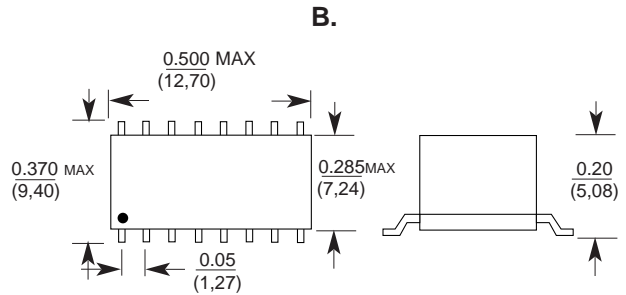
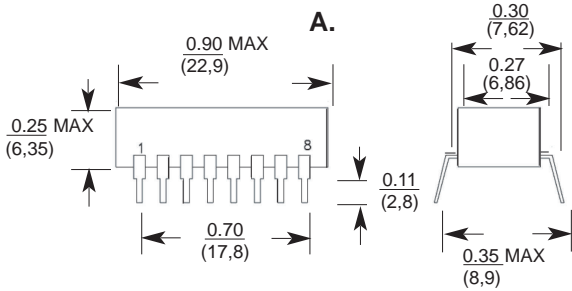
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PACKAGES

NOTES:

- 7. Dimensions: inches / mm; see spec sheet for tolerance limits
- 8. Specifications subject to change without notice



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