

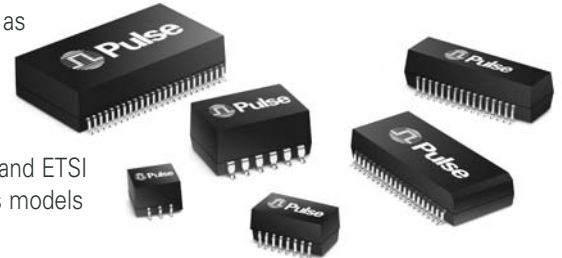
TELECOMMUNICATIONS PRODUCTS



Pulse is a leading provider of magnetics for telecom infrastructure equipment, customer premises equipment, audio interface applications, and emerging applications such as VoIP. Our broad portfolio of transformers and integrated transformer modules support T1/E1/ISDN-PRI, T3/E3/STS-1, ISDN-S, ISDN-U, Digital Audio, and DDS.

Package options include surface mount, through hole, single, dual, quad and octal covering standard and extended temperature ranges. Many parts meet ANSI, ITU and ETSI requirements, and many are recognized by UL, TUV, Austel and/or CSA. Numerous models incorporate our patented "Interlock Base" construction, ensuring high reliability.

Please see our "Telecom IC Cross Reference" section that begins on page 18.



TRANSFORMERS

T1/E1/CEPT/ISDN-Pri—SINGLE, DUAL

Part Number	RoHS-6 Part Number	Turns Ratio	Package L/W/H (in.)*	Data Sheet	Part Number	RoHS-6 Part Number	Turns Ratio	Package L/W/H (in.)*	Data Sheet
SINGLE TRANSFORMERS					3.0 kV – Reinforced Insulation per IEC 950, THT (continued)				
1.5 kV Isolation, Standard Temperature Range, THT									
PE-64931	PE-64931NL	1:1:1 (1:2CS)	.350 / .500 / .250	T608	PE-65832	PE-65832NL	1:1.36CT	.558 / .558 / .400	T608
PE-64933	PE-64933NL	1CT:3CT	.350 / .500 / .250	T608	PE-65833	PE-65833NL	1CT:2CT	.558 / .558 / .400	T608
PE-64934	PE-64934NL	1:1	.350 / .500 / .250	T608	PE-65834	PE-65834NL	1:1	.558 / .558 / .400	T608
PE-64936	PE-64936NL	1CT:1	.350 / .500 / .250	T608	PE-65835	PE-65835NL	1CT:2CT	.558 / .558 / .400	T608
PE-64937	PE-64937NL	1:1.36	.350 / .500 / .250	T608	PE-65836	PE-65836NL	1CT:3CT:1	.558 / .558 / .400	T608
PE-64940	PE-64940NL	1:1:1.58	.350 / .500 / .250	T608	PE-65837	PE-65837NL	1:1.08:1.36	.558 / .558 / .400	T608
PE-64941	PE-64941NL	1:1:2	.350 / .500 / .250	T608	PE-65838	PE-65838NL	1:1.14	.558 / .558 / .400	T608
PE-64942	PE-64942NL	1:1:2.62	.350 / .500 / .250	T608	PE-65839	PE-65839NL	1:1:1.266	.558 / .558 / .400	T608
PE-64943	PE-64943NL	1CT:2CT	.350 / .500 / .250	T608	PE-68646	PE-68646NL	1:1.58:2	.558 / .558 / .400	T608
PE-65351	PE-65351NL	1:2CT	.350 / .500 / .250	T608	PE-68788	PE-68788NL	1CT:1.41CT	.558 / .558 / .400	T608
PE-65363	PE-65363NL	1:4CT	.350 / .500 / .250	T608	DUAL TRANSFORMERS				
PE-65379	PE-65379NL	1:1.14CT	.350 / .500 / .250	T608	1.5 kV Isolation, Extended Temperature Range, THT				
PE-65388	PE-65388NL	1:1.15CT	.350 / .500 / .250	T608	PE-68618	PE-686 18NL	1CT:1CT & 1CT:3CT:0.25	1.000 / .390 / .290	T608
PE-65389	PE-65389NL	1:1:1.266	.350 / .500 / .250	T608	PE-64950	PE-64950NL	1CT:1CT & 1CT:3CT:1	1.000 / .390 / .290	T608
PE-65415	PE-65415NL	1CT:2CT	.350 / .500 / .250	T608	PE-65567	PE-65567NL	1:1.15CT & 1:2CT	.800 / .390 / .290	T608
PE-65558	PE-65558NL	1:2.3CT	.350 / .500 / .250	T608	PE-65568	PE-65568NL	1:1:1.266 & 1:2CT	.800 / .390 / .290	T608
PE-65586	PE-65586NL	1:1.36CT	.350 / .500 / .250	T608	PE-65774	PE-65774NL	1CT:2CT & 1:1.36CT	.800 / .390 / .290	T608
PE-65755	PE-65755NL	1CT:1CT	.350 / .500 / .250	T608	1.5 kV Isolation, Standard Temperature Range, THT				
PE-68644	PE-68644NL	1CT:1	.350 / .500 / .250	T608	PE-64951	PE-64951NL	1:2CT & 1:2CT	.800 / .390 / .250	T608
PE-68645	PE-68645NL	1:1.36CT	.350 / .500 / .250	T608	PE-64952	PE-64952NL	1:2CT & 1:1.36CT	.800 / .390 / .250	T608
T1054	T1054NL	1:1.5CT	.350 / .500 / .250	T608	PE-64953	PE-64953NL	1:2CT & 1:2CT	.800 / .390 / .250	T608
T1249	T1249NL	1:1.26CT	.350 / .500 / .250	T608	PE-64954	PE-64954NL	1CT:2CT & 1:1	.800 / .390 / .250	T608
1.5 kV Isolation, Extended Temperature Range, THT					PE-64955	PE-64955NL	1.58:2CT & 1.58:1	.800 / .390 / .250	T608
PE-68664	PE-68664NL	1:1/1.26	.350 / .500 / .250	T608	PE-64956	PE-64956NL	2:2CT & 2:1	.800 / .390 / .250	T608
PE-65340	PE-65340NL	1:1.36	.350 / .500 / .250	T608	PE-64957	PE-64957NL	2.62:2CT & 2.62:1	.800 / .390 / .250	T608
PE-65770	PE-65770NL	1:1.15CT	.350 / .500 / .250	T608	PE-65565	PE-65565NL	1:1.15CT & 1:2CT	.800 / .390 / .290	T608
PE-65771	PE-65771NL	1CT:2CT	.350 / .500 / .250	T608	PE-65566	PE-65566NL	1:1:1.266 & 1:2CT	.800 / .390 / .290	T608
PE-65778	PE-65778NL	1CT:1CT	.350 / .500 / .250	T608	1.5 kV Isolation, Standard Temperature Range, BH Package, SMT				
PE-68600	PE-68600NL	1CT:3CT	.350 / .500 / .250	T608	T1136	T1136NL	1CT:1CT & 1CT:1.36CT	.505 / .375 / .245	T608
TX1252	TX1252NL	1CT:1	.350 / .500 / .250	T608	T1022	T1022NL	1CT:1.1CT & 1CT:1.5CT	.505 / .375 / .245	T608
T1229	T1229NL	1:1.583CT	.350 / .500 / .250	T659	T1190	T1190NL	1CT:1.36CT & 1CT:1CT	.505 / .375 / .245	T654
1.5 kV Isolation, Extended Temperature Range, SMT					PE-65861	PE-65861NL	1CT:2CT & 1CT:2CT	.505 / .375 / .245	T608
TX1281	—	1CT:1	.220 / .305 / .200	T669	PE-65862	PE-65862NL	1CT:2CT & 1:1.36CT	.505 / .375 / .245	T608
TX1282	—	1.14CT:1	.220 / .305 / .200	T669	PE-65865	PE-65865NL	1:1.15CT & 1CT:2CT	.505 / .375 / .245	T608
TX1283	—	1.35CT:1	.220 / .305 / .200	T669	PE-65866	PE-65866NL	1:1/1.26 & 1CT:2CT	.505 / .375 / .245	T608
TX1284	—	1.26CT:1	.220 / .305 / .200	T669	PE-65870	PE-65870NL	1CT:1.15CT & 1CT:1.15CT	.505 / .375 / .245	T608
TX1491	—	1CT:1	.220 / .305 / .200	T669	PE-68678	PE-68678NL	1CT:1CT & 1CT:2CT	.505 / .375 / .245	T608
TX1492	—	2CT:1	.220 / .305 / .200	T669	PE-68786	PE-68786NL	1CT:1.41CT & 1CT:1.41CT	.505 / .375 / .245	T608
TX1314	—	1:1/1.26	.300 / .390 / .250	T678	T1023	T1023NL	1CT:1.41CT & 1CT:1.41CT	.505 / .375 / .245	T608
TX1315	—	1CT:1CT	.300 / .390 / .250	T678	T1137	T1137NL	1CT:2.42CT & 1CT:2.42CT	.505 / .375 / .245	T651
TX1320	—	1CT:1.36CT	.300 / .390 / .250	T678	T1021	T1021NL	2CT:1/1.26 & 2CT:1/1.26	.505 / .375 / .245	T637
3.0 kV – Reinforced Insulation per IEC 950, THT					T1075	T1075NL	2CS:1.57/2 & 2CS:1.57/2	.505 / .375 / .245	T678
PE-65830	PE-65830NL	1:1:1.58	.558 / .558 / .400	T608	T1122	T1122NL	1CT:2CT & 1CT:2.3CT	.505 / .375 / .245	T608
PE-65831	PE-65831NL	1:1:2	.558 / .558 / .400	T608	T1121	T1121NL	1CT:1.5CT & 1CT:1.5CT	.505 / .375 / .245	T608
					T1286	T1286NL	1CT:2.4CT & 1CT:2.4CT	.505 / .375 / .245	T608

1. To make a 1CT:1 ratio from a 1CT:2CT ratio, use only one-half the 2CT winding.

*L/W/H is measured on surface mount parts tip to tip (height includes wash area).

SMT - Surface Mount Package THT - Through Hole Package

TELECOMMUNICATIONS PRODUCTS



TRANSFORMERS, TRANSFORMER/CHOKE INTERFACE MODULES

T1/E1/CEPT/ISDN-Pri—SINGLE, DUAL, Quad

Part Number	RoHS-6 Part Number	Turns Ratio	Package L/W/H (in.)*	Data Sheet	Part Number	RoHS-6 Part Number	Turns Ratio	Package L/W/H (in.)*	Data Sheet
DUAL TRANSFORMERS (continued)					3.0 kV Isolation – Standard Temperature Range, SMT (continued)				
1.5 kV Isolation, Extended Temperature Range, BH Package, SMT									
T1090	T1090NL	1CT:2CT & 1CT:2CT	.505 / .375 / .245	T608	T1044	—	1CT:2CT & 1CT:1.36CT	.950 / .745 / .395	T617
T1091	T1091NL	1CT:2CT & 1:1.36CT	.505 / .375 / .245	T608	T1045	—	1CT:2CT & 1CT:2CT	.950 / .745 / .395	T617
T1076	T1076NL	1:1.15CT & 1CT:2CT	.505 / .375 / .245	T608	T1047	—	1CT:2.3CT & 1CT:2CT	.950 / .745 / .395	T617
T1092	T1092NL	1:1/1.26 & 1CT:2CT	.505 / .375 / .245	T608	T1049	—	1CT:1/1.26 & 1CT:2CT	.950 / .745 / .395	T617
T1093	T1093NL	1CT:1.15CT & 1CT:1.15CT	.505 / .375 / .245	T608	T1082	—	1CT:2.42CT & 1CT:2.42CT	.950 / .745 / .395	T617
T1077	T1077NL	1CT:1CT & 1CT:1.5CT	.505 / .375 / .245	T608	T1308	—	1CT:2.4CT & 1CT:1CT	.675 / .600 / .340	T666
T1094	T1094NL	1CT:1CT & 1CT:2CT	.505 / .375 / .245	T608	DUAL TRANSFORMER/CHOKE INTERFACE MODULES				
T1144	T1144NL	1CT:1CT & 1CT:2.4CT	.505 / .375 / .245	T608	1.5 kV Isolation, Extended Temperature Range, SMT				
T1095	T1095NL	1CT:1.41CT & 1CT:1.41CT	.505 / .375 / .245	T608	T1207	T1207NL	1CT:2CT & 1CT:2CT	.675 / .600 / .340	T660
T1096	T1096NL	1CT:1.41CT & 1CT:1.41CT	.505 / .375 / .245	T608	T1208	T1208NL	1CT:2CT & 1CT:1.36CT	.675 / .600 / .340	T660
T1097	T1097NL	1CT:1CT & 1CT:1.67CT	.505 / .375 / .245	T608	T1209	T1209NL	1CT:1.15CT & 1CT:2CT	.675 / .600 / .340	T660
T1146	T1146NL	1:2/2.4 & 1:0.79/1	.505 / .375 / .245	T608	T1210	T1210NL	1CT:1.26CT & 1CT:2CT	.675 / .600 / .340	T660
TX1088	TX1088NL	1CT:2CT & 1CT:2.42CT	.505 / .375 / .245	T608	T1211	T1211NL	1CT:1.15CT & 1CT:1.15CT	.675 / .600 / .340	T660
TX1089	TX1089NL	1CT:1CT & 1CT:1CT	.505 / .375 / .245	T608	T1212	T1212NL	1CT:1CT & 1CT:2CT	.675 / .600 / .340	T660
TX1099	TX1099NL	1CT:1.0.8 & 1CT:1.0.8	.505 / .375 / .245	T608	T1213	T1213NL	1CT:1.15CT & 1CT:1CT	.675 / .600 / .340	T660
TX1287	TX1287NL	1CT:2.42CT & 1CT:2.42CT	.505 / .375 / .245	T608	T1214	T1214NL	1CT:1.36CT & 1CT:1.36CT	.675 / .600 / .340	T660
TX1317	TX1317NL	1:2CT & 1:2CS	.505 / .375 / .245	T608	T1215	T1215NL	1CT:1.41CT & 1CT:1.41CT	.675 / .600 / .340	T660
TX1186	TX1186NL	1CT:1.58:2 & 1:1.65:2	.505 / .375 / .245	T608	T1216	T1216NL	1CT:2.3CT & 1CT:2CT	.675 / .600 / .340	T660
TX1187	TX1187NL	1CT:2CT & 1:1	.505 / .375 / .245	T608	T1217	T1217NL	1CT:2.42CT & 1CT:2.42CT	.675 / .600 / .340	T660
TX1188	TX1188NL	1CT:2CT & 1CT:2CT	.505 / .375 / .245	T608	T1218	T1218NL	1CT:1CT & 1CT:1.36CT	.675 / .600 / .340	T660
TX1189	TX1189NL	1:1.36CT & 1:2CT	.505 / .375 / .245	T608	T1219	T1219NL	1CT:2.4CT & 1CT:1CT	.675 / .600 / .340	T660
TX1467	TX1467NL	1CT:1:1 & 1CT:1:1	.505 / .375 / .245	T608	T1220	T1220NL	1CT:1CT & 1CT:1CT	.675 / .600 / .340	T660
1.5 kV Isolation, Standard Temperature Range, ANTE Package, SMT					QUAD TRANSFORMER/CHOKE INTERFACE MODULES				
T1131	T1131NL	1CT:1 & 1:1.36CT	.675 / .600 / .340	T608	1.5 kV Isolation, Extended Temperature Range, SMT				
PE-68861	PE-68861NL	1CT:2CT & 1CT:2CT	.675 / .600 / .340	T608	T1176	T1176NL	1CT:2.4CT & 1CT:1CT	.690 / .630 / .225	T662
PE-68862	PE-68862NL	1CT:2CT & 1:1.36CT	.675 / .600 / .340	T608	TX1192	TX1192NL	1CT:2.42CT & 1CT:2.42CT	.690 / .630 / .225	T662
PE-68863	PE-68863NL	1:2CT & 1:1.14CT	.675 / .600 / .340	T608	TX1193	TX1193NL	1CT:2CT & 1CT:1CT	.690 / .630 / .225	T662
PE-68864	PE-68864NL	1CT:2CT & 1:1	.675 / .600 / .340	T608	TX1194	TX1194NL	1CT:1.15CT & 1CT:1.15CT	.690 / .630 / .225	T662
PE-68865	PE-68865NL	1:1.15CT & 1CT:2CT	.675 / .600 / .340	T608	TX1195	TX1195NL	1CT:1.41CT & 1CT:1.41CT	.690 / .630 / .225	T662
PE-68866	PE-68866NL	1:1/1.26 & 1:2CT	.675 / .600 / .340	T608	TX1196	TX1196NL	1CT:2CT & 1CT:2CT	.690 / .630 / .225	T662
PE-68869	PE-68869NL	1CT:2CT & 1:1.08CT	.675 / .600 / .340	T608	TX1197	TX1197NL	1CT:2CT & 1CT:2CT	.690 / .630 / .225	T662
PE-68836	PE-68836NL	1:1/1.26 & 1:1/1.26	.675 / .600 / .340	T608	TX1198	TX1198NL	1CT:2.3CT & 1CT:1CT	.690 / .630 / .225	T662
1.5 kV Isolation, Extended Temperature Range, ANTE Package, SMT					QUAD TRANSFORMERS (four transformers per package)				
PE-68822	PE-68822NL	1CT:2CT & 1:1.36CT	.675 / .600 / .340	T608	1.5 kV Isolation, Extended Temperature Range, SMT				
PE-68825	PE-68825NL	1:1.15CT & 1CT:2CT	.675 / .600 / .340	T608	TX1321	TX1321NL	1CT:2.4CT & 1CT:1CT	.690 / .630 / .225	T662
PE-68826	PE-68826NL	1:1/1.26 & 1:2CT	.675 / .600 / .340	T608	TX1322	TX1322NL	1CT:2.42CT & 1CT:2.42CT	.690 / .630 / .225	T662
PE-68827	PE-68827NL	1:1CT & 2:1	.675 / .600 / .340	T608	TX1323	TX1323NL	1CT:2CT & 1CT:1CT	.690 / .630 / .225	T662
PE-68828	PE-68828NL	1CT:1CT & 1CT:1CT	.675 / .600 / .340	T608	TX1324	TX1324NL	1CT:1.15CT & 1CT:1.15CT	.690 / .630 / .225	T662
PE-68841	PE-68841NL	1CT:2CT & 1CT:2CT	.675 / .600 / .340	T608	TX1325	TX1325NL	1CT:1.41CT & 1CT:1.41CT	.690 / .630 / .225	T662
PE-68874	PE-68874NL	1CT:1.15CT & 1CT:1.15CT	.675 / .600 / .340	T608	TX1326	TX1326NL	1CT:2CT & 1CT:2CT	.690 / .630 / .225	T662
PE-68877	PE-68877NL	1CT:1CT & 1CT:2CT	.675 / .600 / .340	T608	TX1327	TX1327NL	1CT:2CT & 1CT:2CT	.690 / .630 / .225	T662
PE-68881	PE-68881NL	1CT:2.3CT & 1CT:2CT	.675 / .600 / .340	T608	TX1328	TX1328NL	1CT:2.3CT & 1CT:1CT	.690 / .630 / .225	T662
PE-68882	PE-68882NL	1:1.15CT & 1CT:1CT	.675 / .600 / .340	T608	TX1329	TX1329NL	1CT:1.36CT & 1CT:2CT	.690 / .630 / .225	T662
PE-68884	PE-68884NL	1CT:1.36CT & 1CT:1.36CT	.675 / .600 / .340	T608	TX1330	TX1330NL	1CT:1.15CT & 1CT:2CT	.690 / .630 / .225	T662
PE-68887	PE-68887NL	1CT:1.41CT & 1CT:1.41CT	.675 / .600 / .340	T608	TX1337	—	1CT:1CT & 1CT:1CT	.537 / .590 / .245	T665
TX1277	TX1277NL	1CT:1CT & 1CT:2CT	.675 / .600 / .340	T608	QUAD TRANSFORMERS (four transformers per package)				
3.0 kV Isolation – Standard Temperature Range, SMT					1.5 kV Isolation, Standard Temperature Range, SMT				
T1030	—	1CT:1CT & 1CT:1CT	.950 / .745 / .395	T617	T1001	T1001NL	1:1 & 1:1.36	1.000 / .425 / .295	T615
T1081	—	1CT:1CT & 1CT:1.5CT	.950 / .745 / .395	T617	T1005	T1005NL	1:1.267 & 1:1.58	1.000 / .425 / .295	T615
T1031	—	1CT:1CT & 1CT:2CT	.950 / .745 / .395	T617	T1006	T1006NL	1:1 & 1:2CT	1.000 / .425 / .295	T615
T1032	—	1CT:1.15CT & 1CT:1CT	.950 / .745 / .395	T617	T1007	T1007NL	1:1.15	1.000 / .425 / .295	T615
T1033	—	1CT:1.15CT & 1CT:1.15CT	.950 / .745 / .395	T617	T1008	T1008NL	1:1.364 & 1:2	1.000 / .425 / .295	T615
T1034	—	1CT:1.15CT & 1CT:2CT	.950 / .745 / .395	T617	T1009	T1009NL	1:1 & 1:1.265	1.000 / .425 / .295	T615
T1035	—	1CS:1CS & 1CS:1.36CS	.950 / .745 / .395	T617	T1010	T1010NL	1:1.36CT	1.000 / .425 / .295	T615
T1038	—	1CT:1CT & 1CT:1.36CT	.950 / .745 / .395	T617	T1016	T1016NL	1:1.15 & 1:2	1.000 / .425 / .295	T615
T1036	—	1CT:1.36CT & 1CT:1.36CT	.950 / .745 / .395	T617	T1017	T1017NL	1:2.3 & 1:2	1.000 / .425 / .295	T615
T1037	—	1CT:1.41CT & 1CT:1.41CT	.950 / .745 / .395	T617					
T1080	—	1CT:1.41CT & 1CT:1.41CT	.950 / .745 / .395	T617					
T1039	—	1CT:2CT & 1CT:1.08CT	.950 / .745 / .395	T617					
T1043	—	1CT:2CT & 1CT:1.14CT	.950 / .745 / .395	T617					

*L/W/H is measured on surface mount parts tip to tip (height includes wash area).

SMT - Surface Mount Package THT - Through Hole Package

TELECOMMUNICATIONS PRODUCTS



TRANSFORMERS, TRANSFORMER MODULES

ISDN U-Interface ¹

Part Number	Turns Ratio			OCL Line Side (mH MIN)	Package L/W/H (in.)*	Data Sheet
	1.5-2.0 kV	2.5 kV	3 kV			
THT						
PE-65575	—	PE-68669	1.65:1	13.0 - 18.0	1.100 / .750 / .430	T603
PE-65578	—	—	1.32:1	7.0 - 8.3	1.100 / .750 / .430	T603
PE-65579	—	—	2.00:1	25.5 - 28.5	1.100 / .950 / .450	T603
PE-65581	—	—	1.50:1	14.2 - 15.8	1.100 / .950 / .450	T603
PE-65583	PE-68631	—	1.50:1	25.6 - 28.4	1.100 / .950 / .450	T603
PE-65584	PE-68681	—	1.50:1	25.6 - 28.4	1.100 / .950 / .450	T603
PE-68628	PE-68668	—	1.25:1	26.5 - 29.5	1.100 / .950 / .450	T603
T4008	—	—	1.50:1	73.0 - 98.0	1.050 / .900 / .1050	T616
PT4084	—	—	1:0.75:0.75	85.0	.800 / 1.020 / .675	PT4084
PT5031	—	—	1:1.25	14.5	.800 / 1.020 / .675	PT5031
PT5062	—	—	1:1.6CT	27.0	.800 / 1.020 / .675	PT5062
PT5065	—	—	1:1.33CT	27.0	.800 / 1.020 / .675	PT5065
T4022	—	—	1.6CS:1CT	8.41 - 2.60	.760 / .870 / .450	T625

1. Echo Cancellation Hybrid units PE-36005 and PE-36005W are also available.

Part Number	Turns Ratio	Primary Inductance OCL (mH MIN)	Package L/W/H (in.)*	Data Sheet
SMT				
T4001	1.25:1	26.5 - 30.0	.760 / .870 / .500	T614
T4002	1.65:1	15.0 - 18.0	.760 / .870 / .500	T614
T4004	1.50:1	25.6 - 28.4	.760 / .870 / .500	T614
T4006	1.50:1	14.2 - 15.8	.760 / .870 / .500	T614
T4031	1.65CS:1CT	13.0 - 18.0	.695 / .530 / .485	T624
T4032	1.25CS:1CT	11.9 - 16.1	.695 / .530 / .485	T624
T4033	1.25CS:1CT	26.6 - 29.4	.695 / .530 / .485	T624
T4043	2CS:1CS	13.5 - 16.5	.695 / .530 / .485	T624
T4067	1.32CS:1	7.5 - 8.3	.695 / .530 / .485	T624

1. Echo Cancellation Hybrid units PE-36005 and PE-36005W are also available.

ISDN S-Interface — Single, Dual

Part Number	Turns Ratio	Primary Inductance OCL (mH MIN)	Package L/W/H (in.)*	Data Sheet
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SINGLE TRANSFORMERS, 1.5 kV ISOLATION

PCM/CIA Type 2, SMT

T5002	1:1	22	.492 / .670 / .167	T631
T5003	1:2	22	.492 / .670 / .167	T631
T5004	1:2.5	22	.492 / .670 / .167	T631

SINGLE TRANSFORMERS, 2.0 kV ISOLATION

THT

PE-64993	1:1	22	.560 / .560 / .400	T604
PE-64994	1:1.8	22	.560 / .560 / .400	T604
PE-64995	1:2	22	.560 / .560 / .400	T604
PE-64996	1:2.5	22	.560 / .560 / .400	T604
PE-64998	1:2.5	22	.560 / .560 / .400	T604
PE-64999	1:2	22	.560 / .560 / .400	T604

DUAL TRANSFORMERS, 2.0 kV ISOLATION

THT

PE-65492	1:1 & 1:2	22	.920 / .560 / .400	T604
PE-65493	1:1 & 1:1	22	.920 / .560 / .400	T604
PE-65495	1:2 & 1:2	22	.920 / .560 / .400	T604
PE-65498	1:2.5 & 1:2.5	22	.920 / .560 / .400	T604
PE-65499	1:2 & 1:2	22	.920 / .560 / .400	T604

SMT

PE-65792	1:1 & 1:2	22	.950 / .720 / .390	T604
PE-65793	1:1 & 1:1	22	.950 / .720 / .390	T604
PE-65795	1:2 & 1:2	22	.950 / .720 / .390	T604
PE-65798	1:2.5 & 1:2.5	22	.950 / .720 / .390	T604
PE-65799	1:2 & 1:2	22	.950 / .720 / .390	T604
ST5048	1CS:2.5CS & 1CS:2.5CS	22	.987 / .575 / .340	ST5048
ST5069	1CS:2CS & 1CS:2CS	22	.987 / .575 / .340	ST5069

ISDN S-Interface — Single, Dual (continued)

Part Number	Turns Ratio	Primary Inductance OCL (mH MIN)	Package L/W/H (in.)*	Data Sheet
DUAL TRANSFORMERS, 2.0 kV ISOLATION (continued)				
Low Profile, SMT				
T5005	1:2.5 & 1:2.5	22	.950 / .720 / .295	T613
T5006	1:2 & 1:2	22	.950 / .720 / .295	T613
T5007	1:2 & 1:2	22	.950 / .720 / .295	T613
T5008	1:1 & 1:1	22	.950 / .720 / .295	T613
T5009	1:1 & 1:2	22	.950 / .720 / .295	T613
T5010	1:1.8 & 1:1.8	22	.950 / .720 / .295	T613

SINGLE TRANSFORMERS, 3.0 kV ISOLATION

Reinforced Insulation per IEC 950, THT

PE-68992	1:2CT	22	.750 / .750 / .500	T604
PE-68993	1:1	22	.750 / .750 / .500	T604
PE-68995	1:2	22	.750 / .750 / .500	T604
PE-68998	1:2.5	22	.750 / .750 / .500	T604
PE-68999	1:2	22	.750 / .750 / .500	T604
T5035	1CT:2CT	30	.578 / .648 / .565	T636

DUAL TRANSFORMERS, 3.0 kV ISOLATION

SMT

T5042	1:2 & 1:2	22	1.092 / .726 / .430	T638
T5043	1:2.5 & 1:2.5	22	1.092 / .726 / .430	T638

ISDN S-Interface Modules, Transformer & Choke

Part Number	Turns Ratio	Pri. Inductance OCL (mH MIN)	OCL (mH MIN)		Package L/W/H (in.)*	Data Sheet
			Transformer	Choke		
THT						
T5011	1CT:1CT & 1CT:1CT	30	4.70	1.150 / .420 / .590	T632	
T5012	1CT:2CT & 1CT:2CT	30	4.70	1.150 / .420 / .590	T632	
T5013	1CT:2.5CT & 1CT:2.5CT	30	4.70	1.150 / .420 / .590	T632	
T5015	1:2CT & 1:2CT	30	4.70	1.150 / .420 / .590	T632	
SMT						
T5034	1CT:2CT & 1CT:2CT	30	4.70	1.170 / .660 / .320	T635	
T5037	1CT:2.5CT & 1CT:2.5CT	30	4.70	1.170 / .660 / .320	T635	
T5038	1CT:2CT & 1CT:2CT	30	0.47	1.170 / .660 / .320	T635	
T5039	1CT:2.5CT & 1CT:2.5CT	30	0.47	1.170 / .660 / .320	T635	
ST5201	1CS:2CS & 1CS:2CS	22	0.42	.987 / .575 / .340	ST5201	
T5049	1CT:1CT & 1CT:1CT	30	4.70	1.170 / .660 / .320	T635	

Echelon® & Digital Audio, Single

Part Number	Turns Ratio	Primary Inductance OCL (mH MIN)	Package L/W/H (in.)*	Data Sheet
THT				
T6074 ¹	1:1	.225	.350 / .500 / .250	T688
T6075	1:1	.225	.350 / .500 / .250	T688
PE-65948	1CT:1CT	3.5 - 6.5	.350 / .500 / .250	T602
PE-65612	1:1	2.5	.350 / .500 / .250	T601
SMT				
PE-65848	1CS:1CS	3.5 - 6.5	.480 / .600 / .340	T602
PE-65812	1:1	2.5	.480 / .600 / .340	T601

1. With shield

DDS / Switched 56

Part Number	Turns Ratio	Primary Inductance OCL (mH MIN)	Package L/W/H (in.)*	Data Sheet
SMT				
T7002	1CT:1CT	40	.530 / .695 / .485	T629
T7006	1CT:1CT	40	.410 / .525 / .365	T629

Audio / Voice Band

Part Number	Turns Ratio	Primary Inductance OCL (mH MIN)	Package L/W/H (in.)*	Data Sheet
SMT				
Isolation Voltage				
T6003	1:1	1500	.530 / .695 / .485	T628

SMT - Surface Mount Package THT - Through Hole Package

*L/W/H is measured on surface mount parts tip to tip (height includes wash area).

TELECOM IC CROSS REFERENCE



IC CROSS REFERENCE

ISDN U-Interface						
IC Manufacturer/ IC Part Number	Recommended Transformer					
	1.5 kV		2 kV		2.5 kV	3 kV
	THT	SMT	THT	SMT		
Alcatel (Microelectronics)						
MTC20276	—	T4043	—	—	—	—
AKM						
AK5204	T4022	—	—	—	—	—
Infineon Technologies (Siemens)						
PEB 2091	PT5031	T4031	PE-65575	T4002	—	PE-68669
PEB 8091/8191	—	T4031	PE-65575	T4002	—	PE-68669
PEB 2090/20901	—	T4067	PE-65578	—	—	—
PEB 24902/11	—	T4031	PE-65575	T4002	—	PE-68669
PSB 21910/11	—	T4031	PE-65575	T4002	—	PE-68669
PEB 2491	—	T4032	—	—	—	—
PEB 20901	—	T4067	PE-65578	—	—	—
PEB 2095	—	—	—	—	—	—
PSB 2196	—	—	—	—	—	—
Lucent Technologies						
T7234	PT4084	—	T4008	—	—	—
Motorola						
MC145472	—	—	PE-65579	—	—	—
MC145572	PT5062	T4033	PE-68628 ¹	T4001 ²	PE-68668	—
National Semiconductor						
TP3410	PT5065	—	PE-65583	—	PE-68631	—
	—	—	PE-65584	T4004	—	—
Thomson						
SD 5411	—	—	PE-65581	T4006	PE-68631	—

1. **Small package** for North American applications available.
See **T618** data sheet.

2. **Suitable** for use in North America only.

Echelon® & Digital Audio			
IC Manufacturer	IC Part Number	Single	
		SMT	THT
Echelon®	3120™ 1.25 Mbps	PE-65848	PE-65948
	3150™ 1.25 Mbps	PE-65848	PE-65948
AKM	AK4101	PE-65812	PE-65612
	AK4102	PE-65812	PE-65612
	AK4103	PE-65812	PE-65612
Cirrus Logic	CS8401/2/3/4	PE-65812	PE-65612
	CS8405/8415	PE-65812	PE-65612
	CS8413/14/27	PE-65812	PE-65612
	CS8406/8416	—	T6074/T6075
Realtek	ALS300+	PE-65812	PE-65612

DDS/Switched 56		
IC Manufacturer	IC Part Number	Recommended Transformer
		Dual SMT
Intel	LXT.441	T7002
Intel	LXT.441	T7006

SONET/SDH (STM-1/E4/CMI) DUAL TRANSFORMERS		
IC Manufacturer	IC Part Number	Recommended Transformer
		Single SMT
AMCC	S3015, S3016, S3031B	A7802
Intel	LXT6155	ST6200QNL

ISDN S-Interface								
IC Manufacturer/ Part Number	Dual SMT	Single THT	Dual THT	Dual SMT Module 1.5kVRMS	THT Module w/ Choke 1.5kVRMS	Single THT 3kVRMS	Dual SMT 3kVRMS	PCMCIA
	TX & RX	TX & RX	TX & RX	TX & RX	TX & RX	TX & RX	TX & RX	TX & RX
Alcatel (Microelectronics)								
MTC2072, MTC20172	PE-65795/T5007 ^{LP} /ST5069	PE-64995	PE-65495	T5034/T5038/ST5201	T5015/T5012	PE-68995/T5035	T5042	T5003
MTC20276/77	PE-65795/T5007 ^{LP} /ST5069	PE-64995	PE-65495	T5034/T5038/ST5201	T5015/T5012	PE-68995/T5035	T5042	T5003
AMD								
AM79C30/32	PE-65799/T5006 ^{LP}	PE-64999	PE-65499	T5034/T5038/ST5201	T5015/T5012	PE-68995/T5035	T5042	T5003
Cologne Chip Design								
HFC-SXX	PE-65795/T5007 ^{LP} /ST5069	PE-64995	PE-65495	T5034/T5038/ST5201	T5015/T5012	PE-68999/T5035	T5042	T5003
Infineon Technologies (Siemens)								
PEB2080/81/84/85/86	PE-65795/T5007 ^{LP} /ST5069	PE-64995	PE-65495	T5034/T5038/ST5201	T5015/T5012	PE-68995/T5035	T5042	T5003
PSB2115/86	PE-65795/T5007 ^{LP} /ST5069	PE-64995	PE-65495	T5034/T5038/ST5201	T5015/T5012	PE-68995/T5035	T5042	T5003
PSB21381/82/83/84	PE-65793/T5008 ^{LP} /ST5048	PE-64993	PE-65493	T5049	T5011	PE-68993	—	T5002
PEB3018/86, PSB3186	PE-65793/T5008 ^{LP} /ST5048	PE-64993	PE-65493	T5049	T5011	PE-68993	—	T5002
PEB8090/91, PEB8190/91	—	—	—	T5034/T5038/ST5201	T5015/T5012	PE-68995/T5035	T5042	—
Intel								
29C53	PE-65795/T5010 ^{LP} /ST5069	PE-64995	PE-65495	T5034/T5038/ST5201	T5015/T5012	PE-68995/T5035	T5042	T5003
Lucent Technologies								
T7234, T7254	PE-65798/T5005 ^{LP}	PE-64998	PE-65498	T5037/T5039	T5013	PE-68998	T5043	T5004
T7250/56/59	PE-65798/T5005 ^{LP}	PE-64998	PE-65498	T5037/T5039	T5013	PE-68998	T5043	T5004
T7901/03	PE-65795/T5007 ^{LP} /ST5069	PE-64995	PE-65495	T5034/T5038/ST5201	T5015/T5012	PE-68995/T5035	T5042	T5003
Mitel								
MT8930/31	PE-65795/T5007 ^{LP} /ST5069	PE-64995	PE-65495	T5034/T5038/ST5201	T5015/T5012	PE-68995/T5035	T5042	T5003
Motorola								
MC145474/475	PE-65793/T5008 ^{LP} /ST5048	PE-64993	PE-65493	T5049	T5011	PE-68993	—	T5002
MC145574	PE-65798/T5005 ^{LP}	PE-64998	PE-65498	T5037/T5039	T5013	PE-68998	T5043	T5004
National Semiconductor								
TP3420/21	PE-65795/T5007 ^{LP} /ST5069	PE-64995	PE-65495	T5034/T5038/ST5201	T5015/T5012	PE-68995/T5035	T5042	T5003
SGS Thomson								
ST5420/21	PE-65795/T5007 ^{LP} /ST5069	PE-64995	PE-65495	T5034/T5038/ST5201	T5015/T5012	PE-68995/T5035	T5042	T5003
Yamaha								
7405B, YTD421	PE-65795/T5007 ^{LP} /ST5069	PE-64995	PE-65495	T5034/T5038/ST5201	T5015/T5012	PE-68995/T5035	T5042	T5003

NOTE: LP = Low Profile

*L/W/H is measured on surface mount parts tip to tip (height includes wash area).

SMT - Surface Mount Package THT - Through Hole Package

TELECOM IC CROSS REFERENCE



IC CROSS REFERENCE

T3/DS3/E3/STS-1

IC Manufacturer/ IC Part Number	12 Xfmrs Ext. Temp.	Octal Xfmrs	6 Xfmrs Ext. Temp.	Dual SMT Ext. Temp.	Single SMT				Single THT		Single THT 3 kVRMS	
					Standard Temp.		Extended Temp.		TX	RX	TX	RX
					TX	RX	TX	RX				
Exar												
XRT75xxx	TX3051	T3048	TX3036	TX3025	PE-65967	PE-65967	T3001	T3001	PE-65966	PE-65966	PE-68629	PE-68629
XRT73L00/2/3/4/6/12	TX3051	T3048	TX3036	TX3025	PE-65967	PE-65967	T3001	T3001	PE-65966	PE-65966	PE-68629	PE-68629
XRT73LC03A/04A,R12	TX3051	T3048	TX3036	TX3025	PE-65967	PE-65967	T3001	T3001	PE-65966	PE-65966	PE-68629	PE-68629
XRT7300/7302	TX3051	T3048	TX3036	TX3025	PE-65967	PE-65967	T3001	T3001	PE-65966	PE-65966	PE-68629	PE-68629
Infineon Technologies												
PEB3452/3460	—	—	—	—	—	—	T3027	T3011/01	—	—	—	—
Maxim (Dallas Semi)												
DS3181/2/3/4	TX3052	T3049	—	—	PE-65968	PE-65968	T3002	T3002	PE-65969	PE-65969	PE-68630	PE-68630
DS3150/1/2/3/4	TX3052	T3049	—	—	PE-65968	PE-65968	T3002	T3002	PE-65969	PE-65969	PE-68630	PE-68630
Mindspeed												
CN28333/332/331	TX3051	T3048	TX3036	TX3025	PE-65967	PE-65967	T3001	T3001	PE-65966	PE-65966	PE-68629	PE-68629
M28335/M28356	TX3051	T3048	TX3036	TX3025	PE-65967	PE-65967	T3001	T3001	PE-65966	PE-65966	PE-68629	PE-68629
M28354/3/2	TX3051	T3048	TX3036	TX3025	PE-65967	PE-65967	T3001	T3001	PE-65966	PE-65966	PE-68629	PE-68629
TDK Semiconductor												
78P2342/43/44	TX3051/TX3052	TX3045	T3020 or TX3026	PE-65968	PE-65967	T3002	T3001	PE-65969	PE-65966	PE-68630	PE-68629	—
78P2241B	TX3051/TX3052	TX3045	T3020 or TX3026	PE-65968	PE-65967	T3002	T3001	PE-65969	PE-65966	PE-68630	PE-68629	—
78P7200/7200L	TX3051/TX3052	TX3045	T3020 or TX3026	PE-65968	PE-65967	T3002	T3001	PE-65969	PE-65966	PE-68630	PE-68629	—
78P7203L/7204L	TX3051/TX3052	TX3045	T3020 or TX3026	PE-65968	PE-65967	T3002	T3001	PE-65969	PE-65966	PE-68630	PE-68629	—
78P2362/2361	TX3051/TX3052	TX3045	T3020 or TX3026	PE-65968	PE-65967	T3002	T3001	PE-65969	PE-65966	PE-68630	PE-68629	—
Transwitch												
MRT TXC-02050	TX3051/TX3052	TX3045	—	T3020 or TX3026	PE-65968	PE-65967	T3002	T3001	PE-65969	PE-65966	PE-68630	PE-68629
ART TXC-02020	TX3051	T3048	—	TX3025	PE-65967	PE-65967	T3001	T3001	PE-65966	PE-65966	PE-68629	PE-68629
ARTE TXC-02021	TX3051	T3048	—	TX3025	PE-65967	PE-65967	T3001	T3001	PE-65966	PE-65966	PE-68629	PE-68629
DART TXC-2030, DS3	TX3051	T3048	—	TX3025	PE-65967	PE-65967	T3001	T3001	PE-65966	PE-65966	PE-68629	PE-68629
DART TXC-2030, E3	TX3051/TX3052	T3049/T3048	—	T3020 or TX3026	PE-65968	PE-65967	T3002	T3001	PE-65969	PE-65966	PE-68630	PE-68629
DS3LIM-SN, TXC20153G	TX3051	T3048	—	TX3025	PE-65967	PE-65967	T3001	T3001	PE-65966	PE-65966	PE-68629	PE-68629
E3LIM TXC-20163	TX3051/TX3052	T3049/T3048	—	T3020 or TX3026	PE-65968	PE-65967	T3002	T3001	PE-65969	PE-65966	PE-68630	PE-68629

*L/W/H is measured on surface mount parts tip to tip (height includes wash area).

SMT - Surface Mount Package THT - Through Hole Package

