

SMD Power Inductors / PIH TYPE

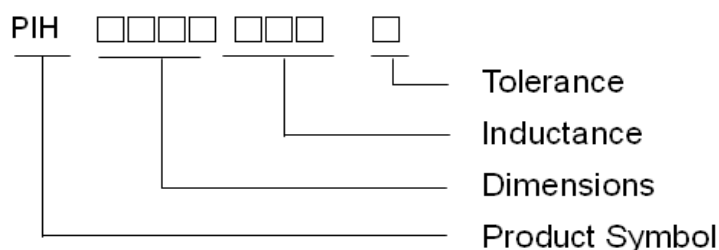
Features:

1. To be high saturation for surface mounting.
2. Surface mount inductor with high current rating.
3. Low resistance to keep power loss minimum.
4. Packed in embossed carrier tape and can be used by automatic mounting machine.

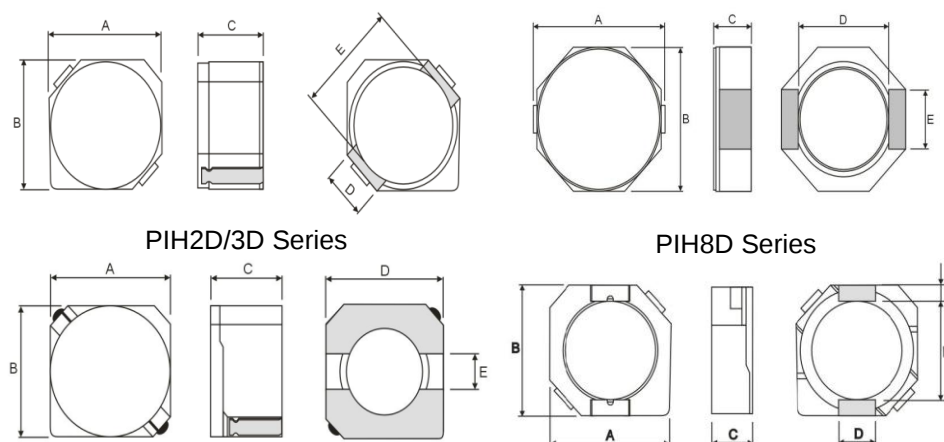
Applications:

LCD driving circuits (DC-DC converters) such as notebook-sized personal computers, portable terminal equipment, game units.

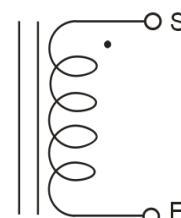
Product Identification :



Shape and Dimension



Schematic

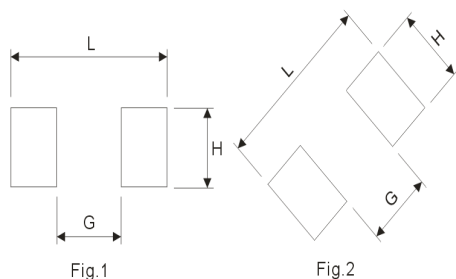


Dimensions in mm

TYPE	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	TYPE	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
PIH2D11	3.20 Max	3.20 Max	1.30 Max	1.00 Typ.	2.10 Typ.	PIH6D28	7.00 Max	7.00 Max	3.00 Max	6.50 Typ.	2.00 Typ.
PIH2D14	3.20 Max	3.20 Max	1.60 Max	1.00 Typ.	2.10 Typ.	PIH6D38	7.00 Max	7.00 Max	4.00 Max	6.50 Typ.	2.00 Typ.
PIH2D18	3.20 Max	3.20 Max	2.00 Max	1.00 Typ.	2.10 Typ.	PIH8D28	9.00 Max	8.30 Max	3.00 Max	6.30 Typ.	2.50 Typ.
PIH3D11	4.00 Max	4.00 Max	1.30 Max	1.10 Typ.	2.80 Typ.	PIH8D38	9.00 Max	8.30 Max	4.00 Max	6.30 Typ.	2.50 Typ.
PIH3D16	4.00 Max	4.00 Max	1.90 Max	1.10 Typ.	2.80 Typ.	PIH8D43	9.00 Max	8.30 Max	4.50 Max	6.30 Typ.	2.50 Typ.
PIH3D28	4.00 Max	4.00 Max	3.00 Max	1.10 Typ.	2.80 Typ.	PIH10D30	10.3 Max	10.5 Max	3.0 Max	3.00 Typ	7.70 Typ
PIH4D18	5.00 Max	5.00 Max	2.00 Max	4.50 Typ.	1.50 Typ.	PIH10D40	10.3 Max	10.5 Max	4.0 Max	3.00 Typ	7.70 Typ
PIH4D28	5.00 Max	5.00 Max	3.00 Max	4.50 Typ.	1.50 Typ.	PIH10D50	10.3 Max	10.5 Max	5.0 Max	3.00 Typ	7.70 Typ
PIH5D18	6.00 Max	6.00 Max	2.00 Max	5.50 Typ.	2.00 Typ.						
PIH5D28	6.00 Max	6.00 Max	3.00 Max	5.50 Typ.	2.00 Typ.						

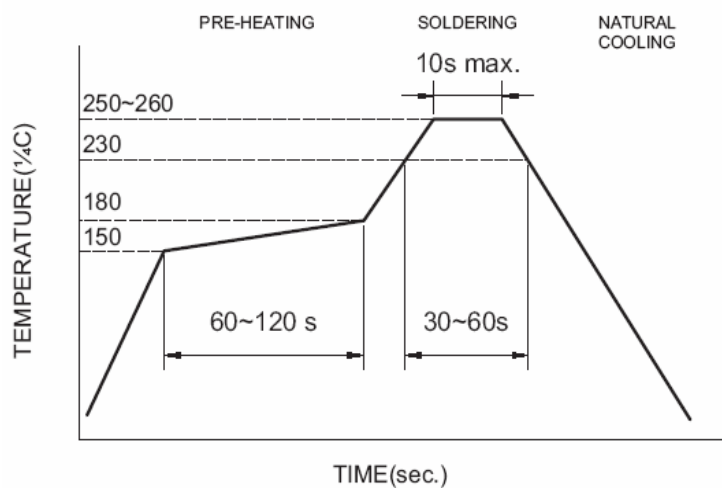
SMD Power Inductors / PIH TYPE

.Land Patterns for Reflow Soldering



TYPE	L(mm)	G(mm)	H(mm)	Fig
PIH2D Series	4.30	1.70	1.30	Fig.2
PIH3D Series	5.20	2.40	1.50	Fig.2
PIH4D Series	5.30	1.50	5.30	Fig.1
PIH5D Series	6.30	2.00	6.30	Fig.1
PIH6D Series	7.30	2.00	7.30	Fig.1
PIH8D Series	10.10	6.10	2.80	Fig.1
PIH10D Series	10.70	7.30	3.60	Fig.1

.Recommended Reflow



SMD Power Inductors / PIH TYPE

Electrical Characteristics (PIH2D11 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max	Irms (A) Typ.	DCR (m Ω) Max	Test frequency
PIH2D11-1R5□	1.5	0.90	1.48	68	100KHz/0.1V
PIH2D11-2R2□	2.2	0.78	1.27	98	100KHz/0.1V
PIH2D11-3R3□	3.3	0.60	1.02	123	100KHz/0.1V
PIH2D11-4R7□	4.7	0.50	0.88	170	100KHz/0.1V
PIH2D11-6R8□	6.8	0.44	0.78	260	100KHz/0.1V
PIH2D11-100□	10.0	0.35	0.65	400	100KHz/0.1V

Electrical Characteristics (PIH2D14 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max	Irms (A) Typ.	DCR (m Ω) Max	Test frequency
PIH2D14-1R5□	1.5	1.80	2.00	63	100KHz/0.1V
PIH2D14-1R8□	1.8	1.65	1.80	75	100KHz/0.1V
PIH2D14-2R2□	2.2	1.50	1.60	94	100KHz/0.1V
PIH2D14-2R7□	2.7	1.35	1.40	106	100KHz/0.1V
PIH2D14-3R3□	3.3	1.20	1.24	125	100KHz/0.1V
PIH2D14-3R9□	3.9	1.10	1.12	138	100KHz/0.1V
PIH2D14-4R7□	4.7	1.00	1.00	169	100KHz/0.1V
PIH2D14-5R6□	5.6	0.95	0.98	188	100KHz/0.1V
PIH2D14-6R8□	6.8	0.85	0.92	213	100KHz/0.1V
PIH2D14-8R2□	8.2	0.80	0.80	281	100KHz/0.1V
PIH2D14-100□	10.0	0.70	0.76	294	100KHz/0.1V
PIH2D14-120□	12.0	0.62	0.64	394	100KHz/0.1V

Electrical Characteristics (PIH2D18 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max	Irms (A) Typ.	DCR (m Ω) Max	Test frequency
PIH2D18-2R2□	2.2	0.85	2.30	41	100KHz/0.1V
PIH2D18-3R3□	3.3	0.75	2.10	54	100KHz/0.1V
PIH2D18-4R7□	4.7	0.63	1.65	78	100KHz/0.1V
PIH2D18-6R8□	6.8	0.52	1.32	106	100KHz/0.1V
PIH2D18-100□	10.0	0.43	1.00	180	100KHz/0.1V
PIH2D18-150□	15.0	0.35	0.80	220	100KHz/0.1V
PIH2D18-220□	22.0	0.30	0.68	320	100KHz/0.1V
PIH2D18-330□	33.0	0.24	0.56	460	100KHz/0.1V
PIH2D18-470□	47.0	0.20	0.48	660	100KHz/0.1V

Electrical Characteristics (PIH3D11 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max	Irms (A) Typ.	DCR (m Ω) Max	Test frequency
PIH3D11-1R0□	1.0	1.36	1.71	70	100KHz/0.1V
PIH3D11-1R5□	1.5	1.12	1.40	87	100KHz/0.1V
PIH3D11-2R2□	2.2	0.96	1.21	120	100KHz/0.1V

SMD Power Inductors / PIH TYPE

Electrical Characteristics (PIH3D11 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max	Irms (A) Typ.	DCR (m Ω) Max	Test frequency
PIH3D11-3R3□	3.3	0.72	0.91	173	100KHz/0.1V
PIH3D11-4R7□	4.7	0.64	0.81	236	100KHz/0.1V
PIH3D11-6R8□	6.8	0.51	0.64	289	100KHz/0.1V
PIH3D11-100□	10.0	0.44	0.55	395	100KHz/0.1V
PIH3D11-150□	15.0	0.34	0.43	605	100KHz/0.1V
PIH3D11-220□	22.0	0.27	0.34	920	100KHz/0.1V
PIH3D11-330□	33.0	0.19	0.24	1520	100KHz/0.1V
PIH3D11-470□	47.0	0.14	0.18	2380	100KHz/0.1V
PIH3D11-680□	68.0	0.11	0.14	3050	100KHz/0.1V
PIH3D11-101□	100.0	0.08	0.10	3650	100KHz/0.1V

Electrical Characteristics (PIH3D16 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max	Irms (A) Typ.	DCR (m Ω) Max	Test frequency
PIH3D16-3R3□	3.3	0.80	2.00	66	100KHz/0.1V
PIH3D16-3R9□	3.9	0.75	1.75	81	100KHz/0.1V
PIH3D16-4R7□	4.7	0.68	1.72	91	100KHz/0.1V
PIH3D16-5R6□	5.6	0.62	1.64	102	100KHz/0.1V
PIH3D16-6R8□	6.8	0.58	1.30	130	100KHz/0.1V
PIH3D16-8R2□	8.2	0.51	1.28	140	100KHz/0.1V
PIH3D16-100□	10.0	0.46	1.07	190	100KHz/0.1V
PIH3D16-120□	12.0	0.42	0.98	205	100KHz/0.1V
PIH3D16-150□	15.0	0.38	0.87	272	100KHz/0.1V
PIH3D16-180□	18.0	0.34	0.76	327	100KHz/0.1V
PIH3D16-220□	22.0	0.31	0.66	356	100KHz/0.1V
PIH3D16-270□	27.0	0.28	0.60	470	100KHz/0.1V
PIH3D16-330□	33.0	0.26	0.55	560	100KHz/0.1V
PIH3D16-390□	39.0	0.24	0.47	700	100KHz/0.1V
PIH3D16-470□	47.0	0.21	0.45	755	100KHz/0.1V

Electrical Characteristics (PIH3D28 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max	Irms (A) Typ.	DCR (m Ω) Max	Test frequency
PIH3D28-100□	10.0	0.50	1.52	92	100KHz/0.1V
PIH3D28-120□	12.0	0.45	1.48	100	100KHz/0.1V
PIH3D28-150□	15.0	0.40	1.44	113	100KHz/0.1V
PIH3D28-180□	18.0	0.35	1.37	125	100KHz/0.1V
PIH3D28-220□	22.0	0.33	1.28	146	100KHz/0.1V
PIH3D28-270□	27.0	0.29	1.18	176	100KHz/0.1V
PIH3D28-330□	33.0	0.28	1.15	214	100KHz/0.1V
PIH3D28-390□	39.0	0.25	1.00	225	100KHz/0.1V
PIH3D28-470□	47.0	0.23	0.81	304	100KHz/0.1V
PIH3D28-560□	56.0	0.20	0.76	324	100KHz/0.1V

SMD Power Inductors / PIH TYPE

Electrical Characteristics (PIH3D28 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max	Irms (A) Typ.	DCR (m Ω) Max	Test frequency
PIH3D28-680□	68.0	0.185	0.60	472	100KHz/0.1V
PIH3D28-820□	82.0	0.172	0.58	539	100KHz/0.1V
PIH3D28-101□	100.0	0.160	0.52	608	100KHz/0.1V
PIH3D28-121□	120.0	0.136	0.50	757	100KHz/0.1V
PIH3D28-151□	150.0	0.124	0.48	882	100KHz/0.1V
PIH3D28-181□	180.0	0.119	0.42	1130	100KHz/0.1V
PIH3D28-221□	220.0	0.116	0.36	1269	100KHz/0.1V

Electrical Characteristics (PIH4D18 TYPE)

Part No.	INDUCTANCE (μ H)	Rated Current (A) Max	DCR (m Ω) Max	Test frequency
PIH4D18-1R0□	1.0	1.72	45	100KHz/0.1V
PIH4D18-2R2□	2.2	1.32	75	100KHz/0.1V
PIH4D18-2R7□	2.7	1.28	105	100KHz/0.1V
PIH4D18-3R3□	3.3	1.04	110	100KHz/0.1V
PIH4D18-3R9□	3.9	0.88	155	100KHz/0.1V
PIH4D18-4R7□	4.7	0.84	162	100KHz/0.1V
PIH4D18-5R6□	5.6	0.80	170	100KHz/0.1V
PIH4D18-6R8□	6.8	0.76	200	100KHz/0.1V
PIH4D18-8R2□	8.2	0.68	245	100KHz/0.1V
PIH4D18-100□	10.0	0.61	200	100KHz/0.1V
PIH4D18-120□	12.0	0.56	210	100KHz/0.1V
PIH4D18-150□	15.0	0.50	240	100KHz/0.1V
PIH4D18-180□	18.0	0.48	338	100KHz/0.1V
PIH4D18-220□	22.0	0.41	397	100KHz/0.1V
PIH4D18-270□	27.0	0.35	441	100KHz/0.1V
PIH4D18-330□	33.0	0.32	694	100KHz/0.1V
PIH4D18-390□	39.0	0.30	709	100KHz/0.1V
PIH4D18-470□	47.0	0.28	922	100KHz/0.1V
PIH4D18-560□	56.0	0.26	1080	100KHz/0.1V
PIH4D18-680□	68.0	0.24	1300	100KHz/0.1V
PIH4D18-820□	82.0	0.22	1550	100KHz/0.1V
PIH4D18-101□	100.0	0.20	1730	100KHz/0.1V

Electrical Characteristics (PIH4D28 TYPE)

Part No.	INDUCTANCE (μ H)	Rated Current (A) Max	DCR (m Ω) Max	Test frequency
PIH4D28-1R2□	1.2	2.56	24	100KHz/0.1V
PIH4D28-1R8□	1.8	2.20	28	100KHz/0.1V
PIH4D28-2R2□	2.2	2.04	31	100KHz/0.1V
PIH4D28-2R7□	2.7	1.60	43	100KHz/0.1V
PIH4D28-3R3□	3.3	1.57	49	100KHz/0.1V
PIH4D28-3R9□	3.9	1.44	65	100KHz/0.1V
PIH4D28-4R7□	4.7	1.32	72	100KHz/0.1V

SMD Power Inductors / PIH TYPE

Electrical Characteristics (PIH4D28 TYPE)

Part No.	INDUCTANCE (μ H)	Rated Current (A) Max	DCR (m Ω) Max	Test frequency
PIH4D28-5R6□	5.6	1.17	101	100KHz/0.1V
PIH4D28-6R8□	6.8	1.12	109	100KHz/0.1V
PIH4D28-8R2□	8.2	1.04	118	100KHz/0.1V
PIH4D28-100□	10.0	1.00	128	100KHz/0.1V
PIH4D28-120□	12.0	0.84	132	100KHz/0.1V
PIH4D28-150□	15.0	0.76	149	100KHz/0.1V
PIH4D28-180□	18.0	0.72	166	100KHz/0.1V
PIH4D28-220□	22.0	0.70	235	100KHz/0.1V
PIH4D28-270□	27.0	0.58	261	100KHz/0.1V
PIH4D28-330□	33.0	0.56	378	100KHz/0.1V
PIH4D28-390□	39.0	0.50	384	100KHz/0.1V
PIH4D28-680□	68.0	0.35	699	100KHz/0.1V
PIH4D28-820□	82.0	0.32	915	100KHz/0.1V
PIH4D28-101□	100.0	0.29	1020	100KHz/0.1V
PIH4D28-121□	120.0	0.27	1270	100KHz/0.1V
PIH4D28-151□	150.0	0.24	1350	100KHz/0.1V
PIH4D28-181□	180.0	0.22	1.54	100KHz/0.1V
PIH4D28-221□	220.0	0.20	1.72	100KHz/0.1V
PIH4D28-271□	270.0	0.16	1.95	100KHz/0.1V
PIH4D28-331□	330.0	0.14	2.66	100KHz/0.1V
PIH4D28-391□	390.0	0.13	2.83	100KHz/0.1V

Electrical Characteristics (PIH5D18 TYPE)

Part No.	INDUCTANCE (μ H)	Rated Current (A) Max	DCR (m Ω) Max	Test frequency
PIH5D18-4R1□	4.1	1.95	57	10KHz/0.1V
PIH5D18-5R4□	5.4	1.60	76	10KHz/0.1V
PIH5D18-6R2□	6.2	1.40	96	10KHz/0.1V
PIH5D18-8R9□	8.9	1.25	116	10KHz/0.1V
PIH5D18-100□	10.0	1.20	124	10KHz/0.1V
PIH5D18-120□	12.0	1.10	153	10KHz/0.1V
PIH5D18-150□	15.0	0.97	196	10KHz/0.1V
PIH5D18-180□	18.0	0.85	210	10KHz/0.1V
PIH5D18-220□	22.0	0.80	290	10KHz/0.1V
PIH5D18-270□	27.0	0.75	330	10KHz/0.1V
PIH5D18-330□	33.0	0.65	386	10KHz/0.1V
PIH5D18-390□	39.0	0.57	520	10KHz/0.1V
PIH5D18-470□	47.0	0.54	595	10KHz/0.1V
PIH5D18-560□	56.0	0.50	665	10KHz/0.1V
PIH5D18-680□	68.0	0.43	840	10KHz/0.1V
PIH5D18-820□	82.0	0.41	978	10KHz/0.1V
PIH5D18-101□	100.0	0.36	1200	10KHz/0.1V
PIH5D18-121□	120.0	0.33	1500	10KHz/0.1V

SMD Power Inductors / PIH TYPE

Electrical Characteristics (PIH5D18 TYPE)

Part No.	INDUCTANCE (μ H)	Rated Current (A) Max	DCR (m Ω) Max	Test frequency
PIH5D18-151□	150.0	0.31	1710	10KHz/0.1V
PIH5D18-181□	180.0	0.28	2240	10KHz/0.1V
PIH5D18-221□	220.0	0.23	2440	10KHz/0.1V
PIH5D18-331□	330.0	0.18	4340	10KHz/0.1V

Electrical Characteristics (PIH5D28 TYPE)

Part No.	INDUCTANCE (μ H)	Rated Current (A) Max	DCR (m Ω) Max	Test frequency
PIH5D28-2R6□	2.6	2.60	18	10KHz/0.1V
PIH5D28-3R0□	3.0	2.40	24	10KHz/0.1V
PIH5D28-4R2□	4.2	2.20	31	10KHz/0.1V
PIH5D28-5R3□	5.3	1.90	38	10KHz/0.1V
PIH5D28-6R2□	6.2	1.80	45	10KHz/0.1V
PIH5D28-8R2□	8.2	1.60	53	10KHz/0.1V
PIH5D28-100□	10.0	1.30	65	10KHz/0.1V
PIH5D28-120□	12.0	1.20	76	10KHz/0.1V
PIH5D28-150□	15.0	1.10	103	10KHz/0.1V
PIH5D28-180□	18.0	1.00	110	10KHz/0.1V
PIH5D28-220□	22.0	0.90	122	10KHz/0.1V
PIH5D28-270□	27.0	0.85	175	10KHz/0.1V
PIH5D28-330□	33.0	0.75	189	10KHz/0.1V
PIH5D28-390□	39.0	0.70	212	10KHz/0.1V
PIH5D28-470□	47.0	0.62	260	10KHz/0.1V
PIH5D28-560□	56.0	0.58	305	10KHz/0.1V
PIH5D28-680□	68.0	0.52	355	10KHz/0.1V
PIH5D28-820□	82.0	0.46	463	10KHz/0.1V
PIH5D28-101□	100.0	0.42	520	10KHz/0.1V
PIH5D28-121□	120.0	0.40	560	10KHz/0.1V
PIH5D28-151□	150.0	0.35	680	10KHz/0.1V
PIH5D28-181□	180.0	0.32	930	10KHz/0.1V
PIH5D28-221□	220.0	0.30	1150	10KHz/0.1V
PIH5D28-271□	270.0	0.27	1560	10KHz/0.1V
PIH5D28-331□	330.0	0.25	1980	10KHz/0.1V
PIH5D28-391□	390.0	0.22	2500	10KHz/0.1V
PIH5D28-471□	470.0	0.20	2700	10KHz/0.1V
PIH5D28-561□	560.0	0.18	3120	10KHz/0.1V
PIH5D28-681□	680.0	0.16	4150	10KHz/0.1V

Electrical Characteristics (PIH6D28 TYPE)

Part No.	INDUCTANCE (μ H)	Rated Current (A) Max	DCR (m Ω) Max	Test frequency
PIH6D28-3R0□	3.0	3.00	24	10KHz/0.1V
PIH6D28-3R9□	3.9	2.60	27	10KHz/0.1V
PIH6D28-5R0□	5.0	2.40	31	10KHz/0.1V

SMD Power Inductors / PIH TYPE

Electrical Characteristics (PIH6D28 TYPE)

Part No.	INDUCTANCE (μ H)	Rated Current (A) Max	DCR (m Ω) Max	Test frequency
PIH6D28-6R0□	6.0	2.25	35	10KHz/0.1V
PIH6D28-7R3□	7.3	2.10	54	10KHz/0.1V
PIH6D28-8R6□	8.6	1.85	58	10KHz/0.1V
PIH6D28-100□	10.0	1.70	65	10KHz/0.1V
PIH6D28-120□	12.0	1.55	70	10KHz/0.1V
PIH6D28-150□	15.0	1.40	84	10KHz/0.1V
PIH6D28-180□	18.0	1.32	95	10KHz/0.1V
PIH6D28-220□	22.0	1.20	128	10KHz/0.1V
PIH6D28-270□	27.0	1.05	124	10KHz/0.1V
PIH6D28-330□	33.0	0.97	165	10KHz/0.1V
PIH6D28-390□	39.0	0.86	210	10KHz/0.1V
PIH6D28-470□	47.0	0.80	238	10KHz/0.1V
PIH6D28-560□	56.0	0.73	277	10KHz/0.1V
PIH6D28-680□	68.0	0.65	304	10KHz/0.1V
PIH6D28-820□	82.0	0.60	390	10KHz/0.1V
PIH6D28-101□	100.0	0.54	535	10KHz/0.1V
PIH6D28-121□	120.0	0.51	750	10KHz/0.1V
PIH6D28-151□	150.0	0.47	950	10KHz/0.1V
PIH6D28-181□	180.0	0.41	1200	10KHz/0.1V
PIH6D28-221□	220.0	0.37	1500	10KHz/0.1V
PIH6D28-271□	270.0	0.33	1700	10KHz/0.1V
PIH6D28-331□	330.0	0.28	2150	10KHz/0.1V
PIH6D28-391□	390.0	0.27	2250	10KHz/0.1V
PIH6D28-471□	470.0	0.21	3150	10KHz/0.1V
PIH6D28-561□	560.0	0.20	3750	10KHz/0.1V
PIH6D28-681□	680.0	0.20	5150	10KHz/0.1V

Electrical Characteristics (PIH6D38 TYPE)

Part No.	INDUCTANCE (μ H)	Rated Current (A) Max	DCR (m Ω) Max	Test frequency
PIH6D38-1R0□	1.0	7.00	9.6	10KHz/0.1V
PIH6D38-2R2□	2.2	4.00	30	10KHz/0.1V
PIH6D38-3R3□	3.3	3.50	20	10KHz/0.1V
PIH6D38-5R0□	5.0	2.90	24	10KHz/0.1V
PIH6D38-6R2□	6.2	2.50	27	10KHz/0.1V
PIH6D38-7R4□	7.4	2.30	31	10KHz/0.1V
PIH6D38-8R7□	8.7	2.20	34	10KHz/0.1V
PIH6D38-100□	10.0	2.00	38	10KHz/0.1V
PIH6D38-120□	12.0	1.70	53	10KHz/0.1V
PIH6D38-150□	15.0	1.60	57	10KHz/0.1V
PIH6D38-180□	18.0	1.50	92	10KHz/0.1V
PIH6D38-220□	22.0	1.30	96	10KHz/0.1V
PIH6D38-270□	27.0	1.20	109	10KHz/0.1V

SMD Power Inductors / PIH TYPE

Electrical Characteristics (PIH6D38 TYPE)

Part No.	INDUCTANCE (μ H)	Rated Current (A) Max	DCR (m Ω) Max	Test frequency
PIH6D38-330□	33.0	1.10	124	10KHz/0.1V
PIH6D38-390□	39.0	1.00	138	10KHz/0.1V
PIH6D38-470□	47.0	0.95	155	10KHz/0.1V
PIH6D38-560□	56.0	0.85	202	10KHz/0.1V
PIH6D38-680□	68.0	0.75	234	10KHz/0.1V
PIH6D38-820□	82.0	0.70	324	10KHz/0.1V
PIH6D38-101□	100.0	0.65	358	10KHz/0.1V
PIH6D38-121□	120.0	0.59	470	10KHz/0.1V
PIH6D38-151□	150.0	0.54	580	10KHz/0.1V
PIH6D38-181□	180.0	0.49	690	10KHz/0.1V
PIH6D38-221□	220.0	0.43	890	10KHz/0.1V
PIH6D38-271□	270.0	0.40	1290	10KHz/0.1V
PIH6D38-331□	330.0	0.37	1700	10KHz/0.1V
PIH6D38-391□	390.0	0.34	1750	10KHz/0.1V
PIH6D38-471□	470.0	0.32	2200	10KHz/0.1V
PIH6D38-561□	560.0	0.29	2850	10KHz/0.1V
PIH6D38-681□	680.0	0.25	3200	10KHz/0.1V
PIH6D38-821□	820.0	0.22	4050	10KHz/0.1V
PIH6D38-102□	1000.0	0.20	5700	10KHz/0.1V

Electrical Characteristics (PIH8D28 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max	Irms (A) Typ.	DCR (m Ω) Max	Test frequency
PIH8D28-2R5□	2.5	4.50	6.40	15.6	100KHz/0.1V
PIH8D28-3R3□	3.3	4.00	6.00	18.2	100KHz/0.1V
PIH8D28-4R7□	4.7	3.40	4.50	24.7	100KHz/0.1V
PIH8D28-7R3□	7.3	2.80	3.40	39	100KHz/0.1V
PIH8D28-100□	10.0	2.50	3.20	47	100KHz/0.1V
PIH8D28-150□	15.0	1.90	2.35	69	100KHz/0.1V
PIH8D28-220□	22.0	1.60	1.85	99	100KHz/0.1V
PIH8D28-330□	33.0	1.30	1.49	156	100KHz/0.1V
PIH8D28-470□	47.0	1.15	1.30	195	100KHz/0.1V
PIH8D28-680□	68.0	0.92	0.98	286	100KHz/0.1V
PIH8D28-101□	100.0	0.75	0.80	980	100KHz/0.1V

Electrical Characteristics (PIH8D38 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max	Irms (A) Typ.	DCR (m Ω) Max	Test frequency
PIH8D38-1R8□	1.8	6.20	6.80	15.6	100KHz/0.1V
PIH8D38-2R0□	2.0	5.50	6.00	17.5	100KHz/0.1V
PIH8D38-3R5□	3.5	4.40	5.20	24	100KHz/0.1V
PIH8D38-4R7□	4.7	4.00	4.40	29	100KHz/0.1V

SMD Power Inductors / PIH TYPE

Electrical Characteristics (PIH8D38 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max	Irms (A) Typ.	DCR (m Ω) Max	Test frequency
PIH8D38-6R0□	6.0	3.50	4.00	32	100KHz/0.1V
PIH8D38-100□	10.0	2.60	3.20	48	100KHz/0.1V
PIH8D38-150□	15.0	2.30	2.50	67	100KHz/0.1V
PIH8D38-220□	22.0	1.88	2.00	105	100KHz/0.1V
PIH8D38-330□	33.0	1.52	1.60	157	100KHz/0.1V
PIH8D38-470□	47.0	1.28	1.42	189	100KHz/0.1V
PIH8D38-680□	68.0	1.10	1.08	290	100KHz/0.1V
PIH8D38-101□	100.0	0.88	0.88	410	100KHz/0.1V

Electrical Characteristics (PIH8D43 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max	Irms (A) Typ.	DCR (m Ω) Max	Test frequency
PIH8D43-2R0□	2.0	7.00	5.50	14	100KHz/0.1V
PIH8D43-3R9□	3.9	5.90	4.50	19	100KHz/0.1V
PIH8D43-4R7□	4.7	5.60	4.10	22	100KHz/0.1V
PIH8D43-6R8□	6.8	4.40	3.90	25	100KHz/0.1V
PIH8D43-100□	10.0	4.00	3.20	36	100KHz/0.1V
PIH8D43-150□	15.0	2.90	2.30	53	100KHz/0.1V
PIH8D43-220□	22.0	2.60	1.80	75	100KHz/0.1V
PIH8D43-330□	33.0	2.20	1.40	125	100KHz/0.1V
PIH8D43-470□	47.0	1.80	1.30	150	100KHz/0.1V
PIH8D43-680□	68.0	1.50	1.00	240	100KHz/0.1V
PIH8D43-101□	100.0	1.30	0.80	360	100KHz/0.1V

Electrical Characteristics (PIH10D30 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max	Irms (A) Typ.	DCR (m Ω) Max	Test frequency
PIH10D30-R80□	0.8	11.20	8.30	5.7	100KHz/0.1V
PIH10D30-1R5□	1.5	8.00	5.80	11	100KHz/0.1V
PIH10D30-2R2□	2.2	6.70	5.10	16.9	100KHz/0.1V
PIH10D30-3R3□	3.3	5.56	4.70	21	100KHz/0.1V
PIH10D30-4R7□	4.7	4.65	4.00	30	100KHz/0.1V
PIH10D30-6R8□	6.8	3.84	3.60	35	100KHz/0.1V
PIH10D30-8R2□	8.2	3.54	3.00	50	100KHz/0.1V
PIH10D30-100□	10.0	3.18	2.80	59	100KHz/0.1V
PIH10D30-150□	15.0	2.60	2.05	91	100KHz/0.1V
PIH10D30-220□	22.0	2.16	1.60	143	100KHz/0.1V
PIH10D30-330□	33.0	1.74	1.35	202	100KHz/0.1V
PIH10D30-470□	47.0	1.43	1.20	299	100KHz/0.1V
PIH10D30-560□	56.0	1.36	1.15	325	100KHz/0.1V
PIH10D30-680□	68.0	1.22	0.95	429	100KHz/0.1V
PIH10D30-820□	82.0	1.14	0.80	494	100KHz/0.1V
PIH10D30-101□	100.0	1.02	0.70	683	100KHz/0.1V
PIH10D30-121□	120.0	0.89	0.65	754	100KHz/0.1V

SMD Power Inductors / PIH TYPE

Electrical Characteristics (PIH10D40 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max		DCR (m Ω) Max	Test frequency
PIH10D30-151□	150.0	0.84	0.51	871	100KHz/0.1V
PIH10D40-1R5□	1.5	10.00		8.1	100KHz/0.1V
PIH10D40-2R5□	2.5	7.50		10.5	100KHz/0.1V
PIH10D40-3R8□	3.8	6.00		13	100KHz/0.1V
PIH10D40-5R2□	5.2	5.50		22	100KHz/0.1V
PIH10D40-7R0□	7.0	4.80		27	100KHz/0.1V
PIH10D40-100□	10.0	4.40		35	100KHz/0.1V
PIH10D40-150□	15.0	3.60		50	100KHz/0.1V
PIH10D40-220□	22.0	2.90		73	100KHz/0.1V
PIH10D40-330□	33.0	2.30		93	100KHz/0.1V
PIH10D40-470□	47.0	2.10		128	100KHz/0.1V
PIH10D40-680□	68.0	1.50		213	100KHz/0.1V
PIH10D40-101□	100.0	1.35		304	100KHz/0.1V
PIH10D40-151□	150.0	1.15		506	100KHz/0.1V
PIH10D40-221□	220.0	0.92		756	100KHz/0.1V
PIH10D40-331□	330.0	0.70		1090	100KHz/0.1V
PIH10D40-471□	470.0	0.80		1670	100KHz/0.25V

Electrical Characteristics (PIH10D50 TYPE)

Part No.	INDUCTANCE (μ H)	Isat (A) Max		DCR (m Ω) Max	Test frequency
PIH10D50-1R5□	1.5	5.50		14	100KHz/0.1V
PIH10D50-2R2□	2.2	6.90		10.4	100KHz/0.1V
PIH10D50-3R3□	3.3	6.50		14	100KHz/0.1V
PIH10D50-4R7□	4.7	6.10		12.3	100KHz/0.1V
PIH10D50-6R8□	6.8	6.00		26	100KHz/0.1V
PIH10D50-8R2□	8.2	3.50		30	100KHz/0.1V
PIH10D50-100□	10.0	3.45		26	100KHz/0.1V
PIH10D50-120□	12.0	3.40		32	100KHz/0.1V
PIH10D50-150□	15.0	2.83		40	100KHz/0.1V
PIH10D50-180□	18.0	2.62		46	100KHz/0.1V
PIH10D50-220□	22.0	2.44		59	100KHz/0.1V
PIH10D50-270□	27.0	2.24		65	100KHz/0.1V
PIH10D50-330□	33.0	1.88		81	100KHz/0.1V
PIH10D50-390□	39.0	1.70		103	100KHz/0.1V
PIH10D50-470□	47.0	1.56		122	100KHz/0.1V
PIH10D50-560□	56.0	1.39		145	100KHz/0.1V
PIH10D50-680□	68.0	1.36		193	100KHz/0.1V
PIH10D50-820□	82.0	1.20		219	100KHz/0.1V
PIH10D50-101□	100.0	1.08		247	100KHz/0.1V
PIH10D50-121□	120.0	1.00		298	100KHz/0.1V
PIH10D50-151□	150.0	0.91		355	100KHz/0.1V
PIH10D50-181□	180.0	0.84		393	100KHz/0.1V

SMD Power Inductors / PIH TYPE

Electrical Characteristics (PIH10D50 TYPE)

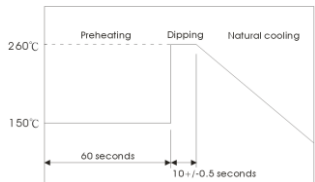
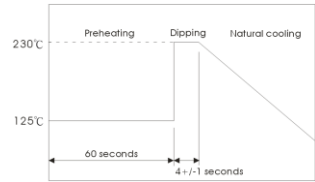
Part No.	INDUCTANCE (μ H)	Isat (A) Max	DCR (m Ω) Max	Test frequency
PIH10D50-221□	220.0	0.75	484	100KHz/0.1V
PIH10D50-271□	270.0	0.68	633	100KHz/0.1V
PIH10D50-331□	330.0	0.60	780	100KHz/0.1V
PIH10D50-391□	390.0	0.57	958	100KHz/0.1V
PIH10D50-471□	470.0	0.50	1220	100KHz/0.1V
PIH10D50-561□	560.0	0.47	1352	100KHz/0.1V
PIH10D50-681□	680.0	0.43	1519	100KHz/0.1V

NOTE:

- Inductance is measured by LCR-meter 4284A(HP) or equivalent.
- DC Resistance is measured by HP4338B Milliohms Meter or equivalent.
- Rated current is measured by LCR-meter 3260B(WK) & DC Bias 3265B(WK).
- Rated current: Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the initial value of inductance has fallen by 35%, whichever is smaller.
- Operating temperature -55°C ~ +125°C. Storage temperature -40°C ~ +85°C.
- All test data is referenced to 25°C ambient.
- Tolerance : J=5% ; K=10% ; M=20% ; N=30%

SMD Power Inductors / PIH TYPE

. Reliability and Test Conditions(可靠性測試條件)

ITEM	Performance	Test Condition
Operating Temperature	-45~+125°C	
Storage temperature	-40~+85°C	
Rated Current	Refer to standard electrical characteristics list.	
Temperature Rise Test	40°C max.(Δt)	
Electrical Performance Test		
Solder Heat Resistance	Appearance: No significant abnormality. Inductance change: Within $\pm 20\%$.	Preheat: 150°C, 60sec. Solder: H63A Solder temperature: 260 ± 5 °C Flux for lead free: rosin Dip time: 10 ± 0.5 sec. 
Solderability Test	More than 90% of the terminal electrode should be covered with solder.	Preheat: 125 ± 25 °C, 60sec. Solder: H63A Solder temperature: 230 ± 5 °C Flux for lead free: rosin Dip time: 4 ± 1 sec. 
High Temperature Resistance Test	Appearance: no damage. Inductance: within $\pm 20\%$ of initial value. No disconnection or short circuit.	Temperature: 85 ± 2 °C. Applied current: rated current. Duration: 500 hrs.
Humidity Resistance Test	Appearance: no damage. Inductance: within $\pm 20\%$ of initial value. No disconnection or short circuit.	Temperature: 40 ± 2 °C. Applied current: rated current. Duration: 500 hrs. Humidity: 90~95%

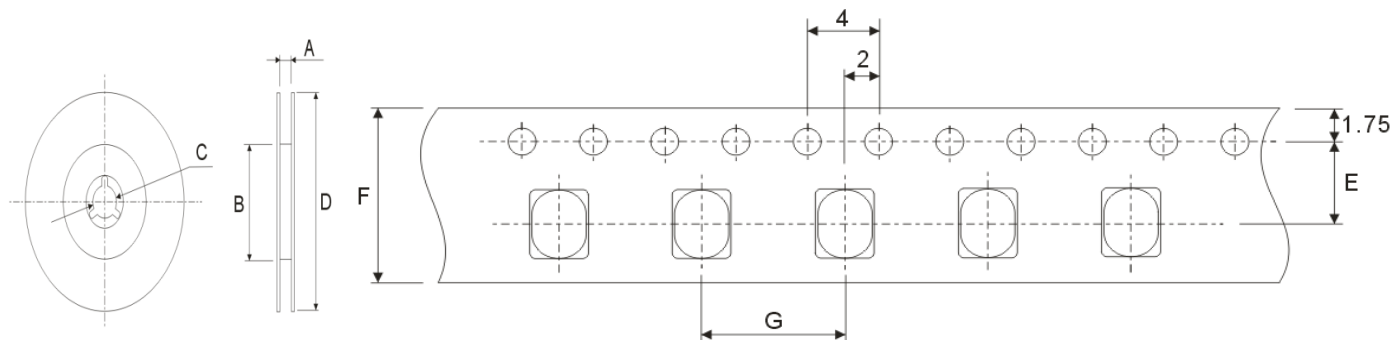
SMD Power Inductors / PIH TYPE

. Reliability and Test Conditions(可靠性測試條件)

ITEM	Performance	Test Condition															
Thermal shock	Appearance: no damage. Inductance: within $\pm 20\%$ of initial value. No disconnection or short circuit.	Condition for 1 cycle Step1: $-25\pm 2^{\circ}\text{C}$, 30 ± 3 min. Step2: Room temperature within 15 min. Step3: $+85\pm 5^{\circ}\text{C}$, 30 ± 3 min. Step4: Room temperature within 15 min. Number of cycles: 50 <table border="1"> <thead> <tr> <th>Phase</th><th>Temperature($^{\circ}\text{C}$)</th><th>Time(min)</th></tr> </thead> <tbody> <tr> <td>1</td><td>$-25\pm 2^{\circ}\text{C}$</td><td>30 ± 3</td></tr> <tr> <td>2</td><td>Room Temp.</td><td>15</td></tr> <tr> <td>3</td><td>$+85\pm 2^{\circ}\text{C}$</td><td>30 ± 3</td></tr> <tr> <td>4</td><td>Room Temp.</td><td>15</td></tr> </tbody> </table>	Phase	Temperature($^{\circ}\text{C}$)	Time(min)	1	$-25\pm 2^{\circ}\text{C}$	30 ± 3	2	Room Temp.	15	3	$+85\pm 2^{\circ}\text{C}$	30 ± 3	4	Room Temp.	15
Phase	Temperature($^{\circ}\text{C}$)	Time(min)															
1	$-25\pm 2^{\circ}\text{C}$	30 ± 3															
2	Room Temp.	15															
3	$+85\pm 2^{\circ}\text{C}$	30 ± 3															
4	Room Temp.	15															
Humidity Resistance	Appearance: no damage. Inductance: within $\pm 20\%$ of initial value. No disconnection or short circuit.	Humidity: $90\sim 95\%$ RH. Temperature: $40\pm 5^{\circ}\text{C}$. Applied current: rated current. Duration: 500 ± 12 hrs. Measured at room temperature after placing for 2 to 3 hrs.															

SMD Power Inductors / PIH TYPE

.Packing Specifications



TYPE	Packaging Quantity	Tape and Reel Dimension						
	Pcs / Reel	A	B	C	D	E	F	G
PIH2D11	3000	12.5	60	13±0.5	178	5.5	12	8
PIH2D14	3000	12.5	60	13±0.5	178	5.5	12	8
PIH2D18	3000	12.5	60	13±0.5	178	5.5	12	8
PIH3D11	3000	12.5	60	13±0.5	178	5.5	12	8
PIH3D16	2000	12.5	100	13±0.5	330	5.5	12	8
PIH3D28	2000	12.5	100	13±0.5	330	5.5	12	8
PIH4D18	2000	12.5	100	13±0.5	330	5.5	12	8
PIH4D28	2000	12.5	100	13±0.5	330	5.5	12	8
PIH5D18	2000	16.5	100	13±0.5	330	7.5	12	8
PIH5D28	2000	16.5	100	13±0.5	330	7.5	12	8
PIH6D28	1500	16.5	100	13±0.5	330	7.5	16	12
PIH6D38	1000	16.5	100	13±0.5	330	7.5	16	12
PIH8D28	1000	16.5	100	13±0.5	330	7.5	16	12
PIH8D38	1000	16.5	100	13±0.5	330	7.5	16	12
PIH8D43	1000	16.5	100	13±0.5	330	7.5	16	12
PIH10D30	1000	24.5	100	13±0.5	330	11.5	24	16
PIH10D40	1000	24.5	100	13±0.5	330	11.5	24	16
PIH10D50	800	24.5	100	13±0.5	330	11.5	24	16

SMD Power Inductors / PIH TYPE **SGS****SGS**

簽名有效

For Question
Please Contact with SGS
www.tw.sgs.com**測試報告
Test Report**

號碼(No.) : CE/2015/C0647

日期(Date) : 2015/12/10

頁數(Page): 1 of 12

聯磁企業股份有限公司

EROCORE ENTERPRISE CO., LTD.

新北市中和區中正路700號16樓

16F., NO. 700, ZHONGZHENG RD., ZHONGHE DIST., NEW TAIPEI CITY 235, TAIWAN

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as):

送樣廠商(Sample Submitted By) : 聯磁企業股份有限公司 (EROCORE ENTERPRISE CO., LTD.)

樣品名稱(Sample Description) : POWER INDUCTOR, CHIP INDUCTOR, COMMON MODE CHOKE / FILTER, WIDE BAND CHOKE, BEAD CORE, RADIAL CHOKE INDUCTOR SERIES

樣品型號(Style/Item No.) : AL, ATN, BC, BCB, CMD, CMH, CML, CMU, CNL, DRC, DSL, ENR, FB, FBA, FC, FCB, HCPI, HDPI, HPI, HSPI, JF, JFE, JFR, LPB, LPC, MPA, MPB, MPC, MPE, MSB, MSC, MSCH, MSH, MSQ, NL, NLA, NLC, NLD, NLE, NLEA, NLF, NLH, NLHB, NLHC, NLHE, NLHF, NLHK, NLHT, NLHS, NLQ, NLS, NLSA, NLSL, NLT, NLTR, NLV, NPL, PA, PCM, PDH, PI, PIA, PIB, PIC, PID, PIDR, PIDT, PIF, PIH, PIHA, PIHC, PIHD, PIHF, PIHK, PIHP, PIHS, PIJ, PIK, PIL, PIM, PIME, PIMN, PIN, PIP, PIQ, PIR, PIS, PISD, PIU, PIV, R6H, R1H, RC, RHA, RHB, RIB, RIBT, RIC, RICT, RSL, RTF, SC, SCB, SL, SLB, SLBA, SLCB, SLHB, SLKC, SLMN, SLSC, SLTC, SLTF, SMTF, SPCT, SPIB, SSL, SSTC, STC, STFE, TC, TCB, TFA, TFE, TFRM, TFU, WCT SERIES.

收件日期(Sample Receiving Date) : 2015/12/03

測試期間(Testing Period) : 2015/12/03 TO 2015/12/10

測試結果(Test Results) : 請見下一頁 (Please refer to next pages).


Troy Chang / Manager - Tech
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/taiwan/sgs-conditions-of-service> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/taiwan/sgs-conditions-of-service>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司 | 25, Wu Chuan 7th Road, New Taipei Industrial Park, Wu Ku District, New Taipei City, Taiwan / 新北市五權區七權路25號
t+886 (0)2122993939 f+886 (0)2122993237 www.sgs.tw

Member of the SGS Group

SMD Power Inductors / PIH TYPE

13. SGS

SGS

測試報告

Test Report

號碼(No.) : CE/2015/C0647

日期(Date) : 2015/12/10

頁數(Page): 2 of 12



聯磁企業股份有限公司

EROCORE ENTERPRISE CO., LTD.

新北市中和區中正路700號16樓

16F., NO. 700, ZHONGZHENG RD., ZHONGHE DIST., NEW TAIPEI CITY 235, TAIWAN

測試結果(Test Results)

測試部位(PART NAME)No. 1 : 整體混測 (MIXED ALL PARTS)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				No. 1
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5: 2013方法, 以感應耦合電漿原子發射光譜儀檢測。 / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n. d.
鉛 / Lead (Pb)	mg/kg	參考IEC 62321-5: 2013方法, 以感應耦合電漿原子發射光譜儀檢測。 / With reference to IEC 62321-5: 2013 and performed by ICP-AES.	2	n. d.
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4: 2013方法, 以感應耦合電漿原子發射光譜儀檢測。 / With reference to IEC 62321-4: 2013 and performed by ICP-AES.	2	n. d.
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	參考IEC 62321: 2008方法, 以UV-VIS檢測。 / With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n. d.
銻 / Antimony (Sb)	mg/kg	參考US EPA 3052方法, 以感應耦合電漿原子發射光譜儀檢測。 / With reference to US EPA Method 3052. Analysis was performed by ICP-AES.	2	n. d.
六溴環十二烷及所有主要被辨別出的異構物 / Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD) (CAS No.: 25637-99-4 and 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8))	mg/kg	參考IEC 62321: 2008方法, 以氣相層析/質譜儀檢測。 / With reference to IEC 62321: 2008 method. Analysis was performed by GC/MS.	5	n. d.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com.tw/Term-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Term-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司

 25, Wu Chyuan 7th Road, New Taipei Industrial Park, Wu Ku District, New Taipei City, Taiwan / 新北市五股區新北產業園區 五權七路25號
 T+886 (0)222593939 F+886 (0)222593237 www.sgs.tw

Member of the SGS Group

SMD Power Inductors / PIH TYPE

13. SGS



測試報告

Test Report

號碼(No.) : CE/2015/C0647

日期(Date) : 2015/12/10

頁數(Page): 3 of 12

聯磁企業股份有限公司

EROCORE ENTERPRISE CO., LTD.

新北市中和區中正路700號16樓

16F., NO. 700, ZHONGZHENG RD., ZHONGHE DIST., NEW TAIPEI CITY 235, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				No. 1
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321-6: 2015方法, 以氣相層析/質譜儀檢測。 / With reference to IEC 62321-6: 2015 and performed by GC/MS.	-	n. d.
一溴聯苯 / Monobromobiphenyl	mg/kg		5	n. d.
二溴聯苯 / Dibromobiphenyl	mg/kg		5	n. d.
三溴聯苯 / Tribromobiphenyl	mg/kg		5	n. d.
四溴聯苯 / Tetrabromobiphenyl	mg/kg		5	n. d.
五溴聯苯 / Pentabromobiphenyl	mg/kg		5	n. d.
六溴聯苯 / Hexabromobiphenyl	mg/kg		5	n. d.
七溴聯苯 / Heptabromobiphenyl	mg/kg		5	n. d.
八溴聯苯 / Octabromobiphenyl	mg/kg		5	n. d.
九溴聯苯 / Nonabromobiphenyl	mg/kg		5	n. d.
十溴聯苯 / Decabromobiphenyl	mg/kg		5	n. d.
多溴聯苯醚總和 / Sum of PBDEs	mg/kg		-	n. d.
一溴聯苯醚 / Monobromodiphenyl ether	mg/kg		5	n. d.
二溴聯苯醚 / Dibromodiphenyl ether	mg/kg		5	n. d.
三溴聯苯醚 / Tribromodiphenyl ether	mg/kg		5	n. d.
四溴聯苯醚 / Tetrabromodiphenyl ether	mg/kg		5	n. d.
五溴聯苯醚 / Pentabromodiphenyl ether	mg/kg		5	n. d.
六溴聯苯醚 / Hexabromodiphenyl ether	mg/kg		5	n. d.
七溴聯苯醚 / Heptabromodiphenyl ether	mg/kg		5	n. d.
八溴聯苯醚 / Octabromodiphenyl ether	mg/kg		5	n. d.
九溴聯苯醚 / Nonabromodiphenyl ether	mg/kg		5	n. d.
十溴聯苯醚 / Decabromodiphenyl ether	mg/kg		5	n. d.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Term-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司

25, Wu Chuan 7th Road, New Taipei Industrial Park, Wu Ku District, New Taipei City, Taiwan / 新北市五股區新台北產業園 五樓七號25樓
t+886 10212299 3939 f+886 10212299 3237 www.sgs.tw

Member of the SGS Group

SMD Power Inductors / PIH TYPE

13. SGS

SGS

測試報告

Test Report

號碼(No.) : CE/2015/C0647

日期(Date) : 2015/12/10

頁數(Page): 4 of 12

聯磁企業股份有限公司

EROCORE ENTERPRISE CO., LTD.

新北市中和區中正路700號16樓

16F., NO. 700, ZHONGZHENG RD., ZHONGHE DIST., NEW TAIPEI CITY 235, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				No. 1
鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate) (CAS No.: 84-69-5)	mg/kg	參考IEC 62321-8 (111/321/CD), 以氣相層析儀/質譜儀檢測之。 / With reference to IEC 62321-8 (111/321/CD). Analysis was performed by GC/MS.	50	n. d.
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	mg/kg		50	n. d.
鄰苯二甲酸丁苄酯 / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)	mg/kg		50	n. d.
鄰苯二甲酸二(2-乙基己基)酯 / DEHP (Di-(2-ethylhexyl) phthalate) (CAS No.: 117-81-7)	mg/kg		50	n. d.
鄰苯二甲酸二正辛酯 / DNOP (Di-n-octyl phthalate) (CAS No.: 117-84-0)	mg/kg		50	n. d.
鄰苯二甲酸二異壬酯 / DINP (Di-isononyl phthalate) (CAS No.: 28553-12-0; 68515-48-0)	mg/kg		50	n. d.
鄰苯二甲酸二異癸酯 / DIDP (Di-isodecyl phthalate) (CAS No.: 26761-40-0; 68515-49-1)	mg/kg		50	n. d.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Term-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司

 25, Wu Chuan 7th Road, New Taipei Industrial Park, Wu Ku District, New Taipei City, Taiwan / 新北市五股區新北產業園區五權七路25號
 t+886 (0)2122993839 f+886 (0)222993237 www.sgs.tw

Member of the SGS Group

SMD Power Inductors / PIH TYPE

13. SGS



測試報告 Test Report

號碼(No.) : CE/2015/C0647

日期(Date) : 2015/12/10

頁數(Page): 5 of 12

聯磁企業股份有限公司

EROCORE ENTERPRISE CO., LTD.

新北市中和區中正路700號16樓

16F., NO. 700, ZHONGZHENG RD., ZHONGHE DIST., NEW TAIPEI CITY 235, TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				No. 1
鹵素 / Halogen				
鹵素 (氟) / Halogen-Fluorine (F) (CAS No. : 14762-94-8)	mg/kg	參考BS EN 14582:2007, 以離子層析儀 分析. / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n. d.
鹵素 (氯) / Halogen-Chlorine (Cl) (CAS No. : 22537-15-1)	mg/kg		50	n. d.
鹵素 (溴) / Halogen-Bromine (Br) (CAS No. : 10097-32-2)	mg/kg		50	n. d.
鹵素 (碘) / Halogen-Iodine (I) (CAS No. : 14362-44-8)	mg/kg		50	n. d.

備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)
5. 樣品的測試是基於申請人要求混合測試, 報告中的混合測試結果不代表其中個別單一材質的含量. (The samples was/were analyzed on behalf of the applicant as mixing sample in one testing. The above results was/were only given as the informality value.)

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Term-conditions-for-electronic-format-documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not constitute parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司

 25, Wu Chyuan 7th Road, New Taipei Industrial Park, Wu Ku District, New Taipei City, Taiwan / 新北市五股區新北產業園區 五權七路25號
 t+886 (0)222993839 f+886 (0)222993237 www.sgs.tw

Member of the SGS Group

SMD Power Inductors / PIH TYPE

13. SGS

SGS

測試報告

Test Report

號碼(No.) : CE/2015/C0647

日期(Date) : 2015/12/10

頁數(Page): 6 of 12

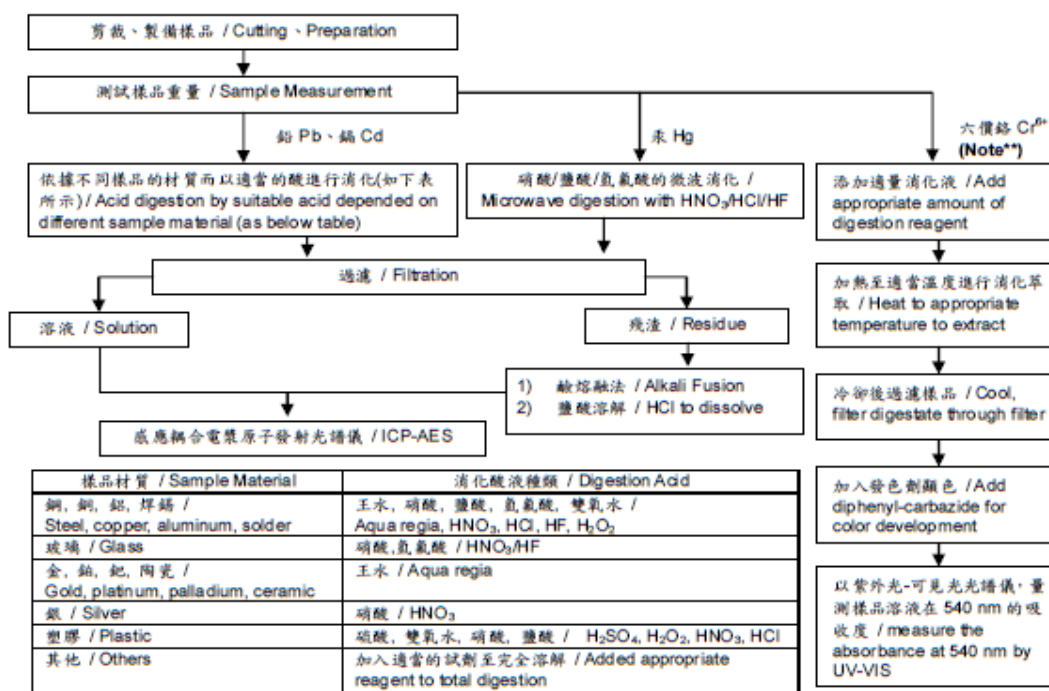
聯磁企業股份有限公司

EROCORE ENTERPRISE CO., LTD.

新北市中和區中正路700號16樓

16F., NO. 700, ZHONGZHENG RD., ZHONGHE DIST., NEW TAIPEI CITY 235, TAIWAN

- 1) 根據以下的流程圖之條件，樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人：張政典 / Name of the person in charge of measurement: Troy Chang



Note** (For IEC 62321)

- (1) 針對非金屬材料加入鹼性消化液，加熱至 90~95°C 萃取。 / For non-metallic material, add alkaline digestion reagent and heat to 90~95°C.
- (2) 針對金屬材料加入純水，加熱至沸騰萃取。 / For metallic material, add pure water and heat to boiling.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not constitute parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司

 25, Wu Chuan 7th Road, New Taipei Industrial Park, WuKu District, New Taipei City, Taiwan / 新北市五股區新北產業園區五權七路25號
 T+886 (0)22299 3939 F+886 (0)22299 3237 www.sgs.tw

Member of the SGS Group

SMD Power Inductors / PIH TYPE

13. SGS



測試報告 Test Report

號碼(No.) : CE/2015/C0647

日期(Date) : 2015/12/10

頁數(Page): 7 of 12

聯磁企業股份有限公司

EROCORE ENTERPRISE CO., LTD.

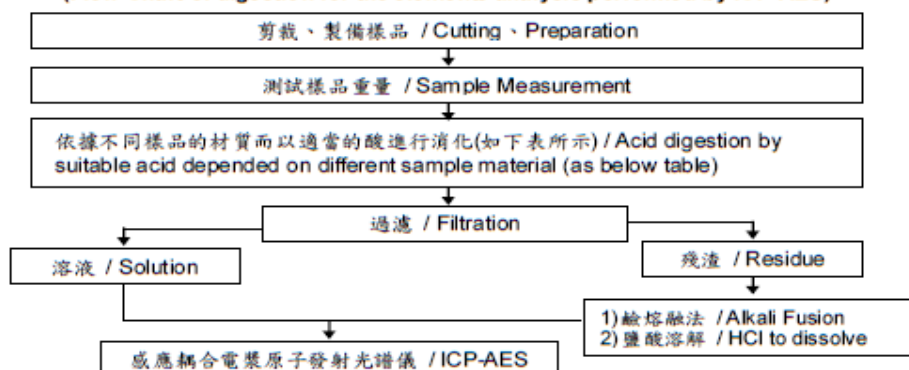
新北市中和區中正路700號16樓

16F., NO. 700, ZHONGZHENG RD., ZHONGHE DIST., NEW TAIPEI CITY 235, TAIWAN



- 根據以下的流程圖之條件，樣品已完全溶解。 / These samples were dissolved totally by pre-conditioning method according to below flow chart.
- 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 測試負責人：張啟興 / Name of the person in charge of measurement: Troy Chang

元素以 ICP-AES 分析的消化流程圖 (Flow Chart of digestion for the elements analysis performed by ICP-AES)



鋼,銅,鋁,焊錫 / Steel, copper, aluminum, solder	王水,硝酸,鹽酸,氫氟酸,雙氧水 / Aqua regia, HNO ₃ , HCl, HF, H ₂ O ₂
玻璃 / Glass	硝酸,氫氟酸 / HNO ₃ /HF
金,鈷,鈦,陶瓷 / Gold, platinum, palladium, ceramic	王水 / Aqua regia
銀 / Silver	硝酸 / HNO ₃
塑膠 / Plastic	硫酸,雙氧水,硝酸,鹽酸 / H ₂ SO ₄ , H ₂ O ₂ , HNO ₃ , HCl
其他 / Others	加入適當的試劑至完全溶解 / Added appropriate reagent to total digestion

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com.tw/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions-for-electronic-format.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

SMD Power Inductors / PIH TYPE**13. SGS****SGS****測試報告
Test Report**

號碼(No.) : CE/2015/C0647

日期(Date) : 2015/12/10

頁數(Page): 8 of 12

聯磁企業股份有限公司

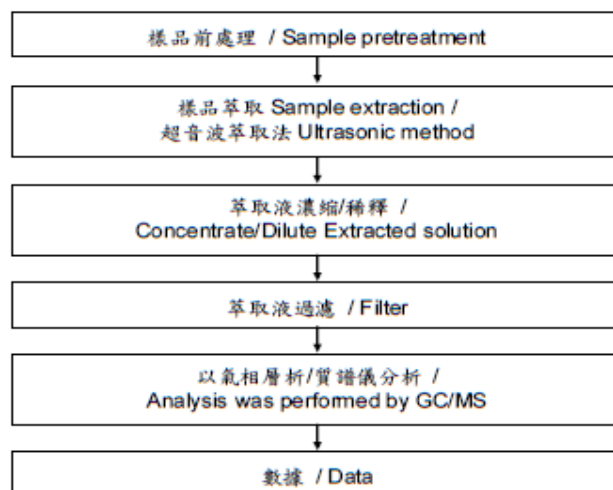
EROCORE ENTERPRISE CO., LTD.

新北市中和區中正路700號16樓

16F., NO. 700, ZHONGZHENG RD., ZHONGHE DIST., NEW TAIPEI CITY 235, TAIWAN

**六溴環十二烷分析流程圖 / HBCDD analytical flow chart**

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啟興 / Name of the person in charge of measurement: Troy Chang



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com.tw/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions/Term-se-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not constitute parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

SMD Power Inductors / PIH TYPE

13. SGS

測試報告
Test Report

號碼(No.) : CE/2015/C0647

日期(Date) : 2015/12/10

頁數(Page): 9 of 12

聯磁企業股份有限公司

EROCORE ENTERPRISE CO., LTD.

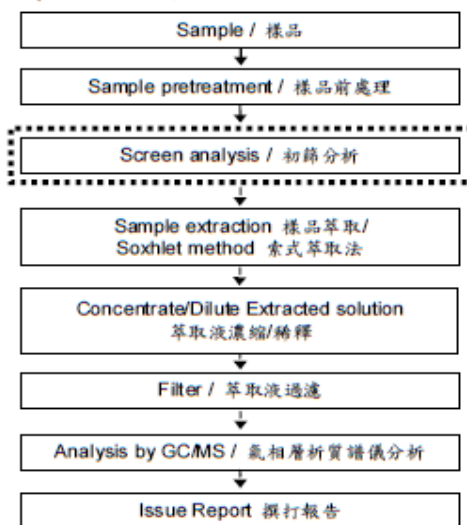
新北市中和區中正路700號16樓

16F., NO. 700, ZHONGZHENG RD., ZHONGHE DIST., NEW TAIPEI CITY 235, TAIWAN



多溴聯苯/多溴聯苯醚分析流程圖 / PBB/PBDE analytical FLOW CHART

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
 - 測試負責人：張啟興 / Name of the person in charge of measurement: Troy Chang
- 初次測試程序 / First testing process →
選擇性篩檢程序 / Optional screen process
確認程序 / Confirmation process - - ->



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com.tw/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions/Term-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

SMD Power Inductors / PIH TYPE**13. SGS****SGS****測試報告
Test Report**

號碼(No.) : CE/2015/C0647

日期(Date) : 2015/12/10

頁數(Page): 10 of 12

聯磁企業股份有限公司

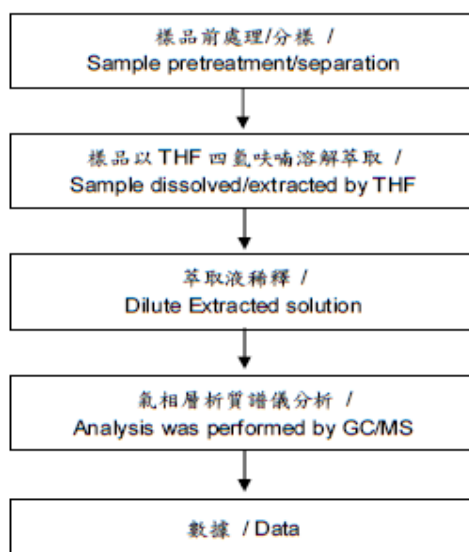
EROCORE ENTERPRISE CO., LTD.

新北市中和區中正路700號16樓

16F., NO. 700, ZHONGZHENG RD., ZHONGHE DIST., NEW TAIPEI CITY 235, TAIWAN

**可塑劑分析流程圖 / Analytical flow chart of phthalate content**

- 測試人員：徐毓明 / Name of the person who made measurement: Andy Shu
- 測試負責人：張啟興 / Name of the person in charge of measurement: Troy Chang

【測試方法/Test method: IEC 62321-8】

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/Terms-and-Conditions/Terms-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not constitute parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

SMD Power Inductors / PIH TYPE**13. SGS****測試報告****Test Report**

號碼(No.) : CE/2015/C0647

日期(Date) : 2015/12/10

頁數(Page): 11 of 12

聯磁企業股份有限公司

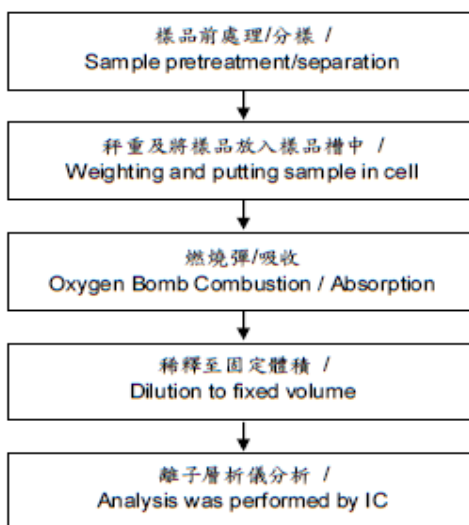
EROCORE ENTERPRISE CO., LTD.

新北市中和區中正路700號16樓

16F., NO. 700, ZHONGZHENG RD., ZHONGHE DIST., NEW TAIPEI CITY 235, TAIWAN

**鹵素分析流程圖 / Analytical flow chart of halogen content**

- 測試人員：陳思臻 / Name of the person who made measurement: Rita Chen
- 測試負責人：張啟興 / Name of the person in charge of measurement: Troy Chang



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/Taiwan/Term-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/Taiwan/Term-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not constitute parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

SMD Power Inductors / PIH TYPE**13. SGS****測試報告
Test Report**

號碼(No.) : CE/2015/C0647

日期(Date) : 2015/12/10

頁數(Page): 12 of 12

聯磁企業股份有限公司

EROCORE ENTERPRISE CO., LTD.

新北市中和區中正路700號16樓

16F., NO. 700, ZHONGZHENG RD., ZHONGHE DIST., NEW TAIPEI CITY 235, TAIWAN



* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。*
(The tested sample / part is marked by an arrow if it's shown on the photo.)

CE/2015/C0647**CE/2015/C0647****** 報告結尾 (End of Report) ****

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com.tw/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions-for-Electronic-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of the document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.