

# Wiring, Printed - Component

## COMPANY

### KSG GmbH

AUERBACHER STR 3-5  
GORNSDORF, 09390 Germany

E143060

Type	Cond Width		Cond Thk	SS/DSO	Area Diam	Max Report date After	Surface Mount	Assembly Solder		Max Oper		Meets UL796	C	I	
	Min	Edge						Temp	Process	Solder Limits	Temp				Flame
	mm	mm	mic	mm	mm	2022-01-01	Technology	°C	Cycles	°C	sec	°C	Class	DSR	
<b>Multilayer (Mass-laminated) printed wiring boards</b>															
MLM	0.15	0.15	30.5	DS	91.4	No	-	-	-	250	8	100	V-0	-	-
<b>Multilayer printed wiring boards</b>															
3M (ASP 1)	0.07	0.11	5 Int:105	DS	90.0	Yes	Yes	260	6	-	-	130	V-0	All	*
4L	0.04	0.06	9 Int:105	DS	50.8	No	-	-	-	288	20	130	V-1	All	*
4M	0.04	0.06	9 Int:105	DS	50.8	No	-	-	-	288	20	130	V-0	All	*
H2 @	0.039	0.117	64 Int:95	DS	25.4	No	-	-	-	288	10	130	V-0	All	3
M2	0.064	0.10	9 Int:107	DS	50.0	No	-	-	-	288	20	130	V-0	All	*
M3 (ASP 1)	0.04	0.06	5 Int:105	DS	90.0	Yes	Yes	260	6	-	-	130	V-0	All	*
M4	0.064	0.10	9 Int:107	DS	127.0	No	-	-	-	288	20	130	V-0	All	3
M6 (ASP 1)	0.04	0.06	5 Int:70	DS	50.8	No	Yes	260	6	-	-	130	V-0	All	3
M7 (ASP 1)	0.04	0.06	5 Int:105	DS	90.0	Yes	Yes	260	4	-	-	120	V-0	All	3

<b>M8</b>	0.075	0.10	17 Int:35	DS	50.0	No	-	-	-	288	20	130	V-0	All	*
<b>ML</b>	0.064	0.19	18 Int:107	DS	90.2	No	-	-	-	270	8	125	V-0	All	*
<b>ML1</b>	0.064	0.10	9 Int:107	DS	127.0	No	-	-	-	288	20	125	V-0	All	*
<b>ML2</b>	1.100	1.500	30 Int:18	DS	89.9	No	-	-	-	255	8	125	V-0	All	*
<b>ML3</b>	1.350	1.700	30 Int:400	DS	90	No	-	-	-	230	3	130	V-0	All	*
<b>ML4</b>	0.064	0.100	9 Int:107	DS	127.0	No	-	-	-	288	20	130	V-0	All	3
<b>ML5</b>	0.064	0.10	9 Int:102	DS	127.0	No	-	-	-	288	20	130	V-0	All	*
<b>ML6</b>	0.064	0.190	18 Int:107	DS	90.2	No	-	-	-	270	8	130	V-0	All	*
<b>ML7</b>	0.064	0.190	18 Int:107	DS	13.8	No	-	-	-	270	8	130	V-0	All	3

**Multilayer rigid flex composite printed wiring boards, flammability only Recognition**

<b>SF1</b>	-	-	-	DS	-	No	-	-	-	270	10	-	V-0	-	-
<b>SF1&lt;</b>	-	-	-	DS	-	No	-	-	-	270	10	-	V-1	-	-
<b>SF2</b>	-	-	-	DS	-	No	-	-	-	270	10	-	V-0	-	-
<b>SF2&lt;</b>	-	-	-	DS	-	No	-	-	-	270	10	-	V-0	-	-
<b>SF7</b>	-	-	-	DS	-	No	-	-	-	270	10	-	V-0	-	-
<b>SF7&lt;</b>	-	-	-	DS	-	No	-	-	-	270	10	-	V-1	-	-

**Multilayer Rigid Flex Composite, Flexible Materials Interconnect Constructions intended for use in flexible-rigid applications - Flammability Only Recognition.**

<b>ML-FR1</b>	-	-	-	DS	-	No	-	-	-	288	10	-	V-0	-	-
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**Multilayer Rigid Flex Composite, Flexible Materials Interconnect Constructions intended for use in flexible-rigid applications.**

<b>ML-FR (Note 1)</b>	0.07	0.07	17 Int:68	DS	60	No	-	-	-	288	10	105	V-0	-	4
<b>ML-FR(b) (Note 1)</b>	0.07	0.09	17 Int:68	DS	60	No	-	-	-	288	10	105	V-0	-	-
<b>ML-FR2</b>	0.08	0.24	35 Int:35	SS	60	No	-	-	-	288	10	130	V-0	-	2

<b>SF (Note 1)</b>	0.09	0.09	17 Int:68	DS	60	No	-	-	-	288	20	130	V-0	All	3
<b>Single layer flexible printed wiring boards</b>															
<b>FL</b>	0.1	0.3	17.5	DS	61	No	-	-	-	250	30	105	V-0	-	-
<b>Single Layer flexible printed wiring boards, flammability only Recognition</b>															
<b>FL1</b>	-	-	-	DS	-	No	-	-	-	250	30	-	V-0	-	-
<b>Single layer printed wiring boards</b>															
<b>3D (ASP 1)</b>	0.07	0.11	5	DS	90.0	Yes	Yes	260	6	-	-	130	V-0	All	*
<b>5G</b>	0.04	0.06	9	DS	50.8	No	-	-	-	288	20	130	V-1	All	*
<b>5H</b>	0.04	0.06	9	DS	50.8	No	-	-	-	288	20	130	V-0	All	*
<b>D1</b>	0.064	0.10	9	DS	127.0	No	-	-	-	288	20	125	V-0	All	*
<b>D2</b>	0.064	0.100	9	DS	50.0	No	-	-	-	288	20	130	V-0	All	*
<b>D3 (ASP 1)</b>	0.04	0.06	5	DS	90.0	Yes	Yes	260	6	-	-	130	V-0	All	*
<b>D4</b>	0.064	0.100	9	DS	127.0	No	-	-	-	288	20	130	V-0	All	3
<b>D5</b>	0.064	0.10	9	DS	127.0	No	-	-	-	288	20	130	V-0	All	*
<b>D7 (ASP 1)</b>	0.04	0.06	5	DS	90.0	Yes	Yes	260	4	-	-	120	V-0	All	3
<b>DKL, EEL</b>	0.064	0.19	18	DS	90.2	No	-	-	-	270	8	125	V-0	All	*
<b>DKL2</b>	0.18	0.53	18.3	DS	25.4	No	-	-	-	255	8	120	V-0	All	*
<b>DKL3</b>	0.083	0.25	18.3	DS	90.1	No	-	-	-	270	8	100	V-1	All	0
<b>DKL4</b>	0.064	0.10	9	DS	127.0	No	-	-	-	288	20	130	V-0	All	3
<b>DKL6</b>	0.064	0.19	18	DS	90.2	No	-	-	-	270	8	130	V-0	All	*
<b>S6 (ASP 1)</b>	0.04	0.06	5	DS	50.8	No	Yes	260	6	-	-	130	V-0	All	3
<b>TF1</b>	0.125	0.190	18	DS	89.9	No	-	-	-	288	10	150	V-0	All	0
<b>TF2</b>	0.125	0.190	18	DS	90.1	No	-	-	-	288	10	105	V-0	▲	0
<b>TF3</b>	0.16	0.22	18	DS	89.9	No	-	-	-	288	10	130	V-0	All	0

\* - CTI marking is optional and may be marked on the printed wiring board.

ASP 1 - Assembly solder process evaluated to IPC-TM-650, 2.6.27 Thermal Stress Assembly Simulation

Note 1 - The copper thickness values shown are for the rigid section. For the flexible section, both internal and external copper are 35 mic only.

Marking: Company name or tradename "K", "KSG" or trademark , , ,  or file number and type designation. May be followed by a suffix to denote factory identification or flammability classification..

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