UL Product **iQ**®



Wiring, Printed - Component

COMPANY

WUERTH ELEKTRONIK GMBH & CO KG

SALZSTR 21 NIEDERNHALL, 74676 Germany

E76251

	Cond	Width			Max Report							Мах					
		Min	Cond	SS /	Aroa	date	Surface	Asse	nbly der Solder			Oper		Moots	c		
	Min	Edge	Thk	DS/	Diam	After	Mount	Process	Process	Lim	its	Temp	Flame	UL796	т		
		5		-		2022-		Temp				•					
Туре	mm	mm	mic	DSO	mm	01-01	Technology	°C	Cycles	°C	sec	°C	Class	DSR	I		
Multi layer printed wiring			ring boar	ds													
50	0.076	0.229	4.5 Int:99	DS	127	No	-	-	-	288	20	130	V-0	All	*		
52	0.076	0.229	5 Int:35	DS	25.4	No	-	-	-	288	20	130	V-0	All	*		
52A	0.076	0.229	5 Int:35	DS	25.4	No	-	-	-	288	20	130	V-1	All	*		
53 (c)	0.076	0.228	5 Int:99	DS	25.4	No	-	-	-	288	20	130	V-1	All	*		
53B (c)	0.076	0.228	5 Int:99	DS	12.7	No	-	-	-	288	20	130	V-0	All	*		
54	0.076	0.229	4.5 Int:99	DS	127	No	-	-	-	288	20	130	V-0	All	*		
59	0.05	0.05	5 Int:70	DS	50.8	No	-	-	-	288	20	130	V-0	All	3		
59A	0.05	0.05	5 Int:70	DS	50.8	No	-	-	-	288	20	130	V-0	All	3		
59B	0.05	0.05	20 Int:70	DS	50.8	No	-	-	-	288	20	130	V-0	All	3		
Multila	yer Flex	ible Ma	terials In	terco	nnect	connecti	ions (FMIC) v	vith Flam	mability	Classi	ficat	ion onl	у				
56	-	-	-	DS	-	No	-	-	-	288	20	-	V-0	-	-		
65	-	-	-	DS	-	No	-	-	-	288	17	-	V-0	-	-		
65A	-	-	-	DS	-	No	-	-	-	288	17	-	V-1	-	-		

Multilayer metal based printed wiring boards, flammability only Recognition															
58	-	-	-	SS	-	No	-	-	-	288	20	-	V-0	-	-
Multilayer printed wiring boards															
51B (ASP 1)	0.05	0.05	5 Int:70	DS	50.8	Yes	Yes	260	6	-	-	130	V-0	All	*
912	0.08	0.15	17 Int:175	DS	76	No	-	-	-	288	20	130	V-0	All	*
913	0.08	0.08	12 Int:70	DS	25.4	No	-	-	-	260	5	130	V-0	All	-
								-	-	260) 5				
Multilayer printed wiring boards, flammability only Recognition															
51	-	-	-	DS	-	No	-	-	-	288	20	-	V-0	-	-
51A	-	-	-	DS	-	No	-	-	-	288	20	-	V-1	-	-
80	-	-	-	DS	-	No	-	-	-	288	20	-	V-0	-	-
83	-	-	-	DS	-	No	-	-	-	288	20	-	V-0	-	-
Multilayer printed wiring boards, Production Board Recognition															
69 (ASP 1) (Note 7)	-	-	-	DS	-	Yes	Yes	260	2	-	-	130	V-0	All	1
70 (ASP 1) (Note 7)	-	-	-	DS	-	Yes	Yes	260	2	-	-	130	V-0	All	1
Multila	yer rigi	d flex c	omposite	, flexi	ble ma	aterials i	nterconnect	construc	tions						
63A (ASP 1) (Note 5)	0.05	0.05	5 Int:70	DS	25.4	Yes	Yes	260	6	-	-	130	V-0	All	4
63B (ASP 1) (Note 6)	0.05	0.05	5 Int:70	DS	25.4	Yes	Yes	260	6	-	-	130	V-0	All	4
Multila	yer rigi	d flex c	omposite	, flexi	ble ma	terials i	nterconnect	construc	tions, fla	mmak	oility	only R	ecognit	tion	
82 (ASP 1)	-	-	-	DS	-	Yes	Yes	260	6	288	20	-	V-0	-	-
Multila	yer rigi	d flex c	omposite	, flexi	ble ma	terials i	nterconnect	construc	tions, fo	r flex-	to-in	stall/ri	gid app	olicatior	ıs.

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57 (ASP 1) (Note 2) (Note 3) (Note 4)	0.075	0.075	5 Int:70	DS	25.4	Yes	Yes	260	6	-	-	105	V-0		-
Multilayer Rigid/Flex-to-Install Printed Wiring Boards															
66 @	0.075	0.20	18 Int:70	DS	25.4	No	-	-	-	288	20	120	V-1	All	4
67 @	0.075	0.20	35 Int:35	DS	25.4	No	-	-	-	288	20	120	V-0	All	3
68 @	0.075	0.20	35 Int:35	DS	25.4	No	-	-	-	288	20	120	V-1	All	2
Single l	layer pr	inted w	iring boa	rds											
11	0.076	0.229	16.5	DS	127	No	-	-	-	288	20	130	V-0	All	*
12	0.076	0.229	5	DS	25.4	No	-	-	-	288	20	130	V-0	All	*
12A	0.076	0.229	5	DS	25.4	No	-	-	-	288	20	130	V-1	All	*
14	0.076	0.229	16.5	DS	127	No	-	-	-	288	20	130	V-0	All	*
911	0.08	0.15	17	DS	50.8	No	-	-	-	288	20	130	V-0	All	*
Single l	layer pr	inted w	iring boa	rds, f	amma	bility or	ly Recognitio	on							
13	-	-	-	DS	-	No	-	-	-	288	20	-	V-0	-	-

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

- Various conductor thicknesses, Refer to Report dated August 29, 1978.

% - Various board types; refer to reprt dated 1972-07-20

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

(c) - Board employs embedded, uninsulated wires welded to copper foil

(Note 2) - This construction is DS in the main build-up portion and SS in the reduced thickness milled-down section

(Note 3) - Max external Cu in reduced thickness milled-down portion is 60 microns. No Internal Copper in milled down portion.

(Note 4) - Milled down portion is limited to MAD of 25.4mm, Rigid portion is limited to MAD of 50.8.

(Note 5) - Minimum and Maximum External Copper Thickness on Basefilm = 5 to 70mic, Minimum and Maximum External Copper Thickness on Rigid Laminate = 8 to 102 mic; minimum external copper thickness of 5mic on flex and 8mic on rigid construction is achieved by etching of 12mic base copper foil. The as received copper thickness that can be used in both flex and rigid construction is 12mic minimum only

(Note 6) - Minimum and Maximum External Copper Thickness on Basefilm = 5 to 70mic, Minimum and Maximum External Copper Thickness on Rigid Laminate = 9 to 102 mic; minimum external copper thickness of 5mic on flex and 8mic on rigid construction is achieved by etching of 12mic base copper foil. The as received copper thickness that can be used in both flex and rigid construction is 12mic minimum only

(Note 7) - Type has been evaluated as a production board and is therefore limited to the conductor pattern and build-up construction evaluated

@ - Minimum external Cu thickness in the rigid portion is 12 mic. Maximum internal Cu thickness in rigid portion is 70 mic. Minimum external and maximum internal Cu values indicated refers to flexible portion of the board.

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