



UNISONIC TECHNOLOGIES CO., LTD

產品變更通知 PRODUCT CHANGE NOTIFICATION

PCN No.	IC-PPCN-120901	Issue Date	Sep-10-2012
TITLE	銲線材料變更為銅線(Conversion to Copper)		Page 1 of 6

變更主旨(TITLE):

本公司部份產品之封裝銲線導由金線轉為銅線。
Conversion of Gold wire to Copper wire in selected UTC's products.

變更類別(CHANGE TYPE):

Design Process Raw Material Manufacturing Site
 Testing Packing/Shipping/Labeling Other _____

變更說明(DESCRIPTION OF CHANGE):

友順公司謹此通知我們的客戶，本公司已獲 貴公司承認及交貨之部份產品，其封裝製程所使用之銲線材料將使用銅線取代金線，適用之產品明細請參本通知書**適用產品**內容。

UTC is notifying customers that its use of Copper Wire in place of Gold Wire on the listed products, please refer to **APPLICABLE PRODUCTS** section in this PCN.

使用銅線取代金線有以下之優點，可進一步提高產品可靠性：

The advantages of compared to Gold, Copper wire in quality and reliability:

- 銅的介金屬化合物生長速度較慢，電阻增加量降低，熱量產生減少
Slower intermetallic growth to lower electrical resistivity and reduce thermal generating.
- 寄生電容較小、高熔斷電流和抗電子遷移性能好
Smaller parasitic capacitance, higher fuse current and electromigration resistance.
- 導熱性較高，散熱快能承載更高的熱負載及額定功率
Higher thermal conductivity and good dissipation to has higher current carrying capacity.

品質驗證(VERIFICATION/QUALIFICATION):

本項變更之所有產品封裝別，均經取樣進行完整之特性及可靠性驗證，品質均符合規格書要求。

Reliability qualification and full electrical characterization have been performed by was completed using representative devices, the proposed change is guaranteed to meet the parameters and limits specified in the current UTC's data sheet. Characterization data is available upon request.

生效日期(EFFECTIVE DATE OF CHNAGE):

Dec-11-2012

友順對此變更所引起之不便表達致歉，本變更書已於本公司網站公告，敬請 貴公司協助於公告日起或收到本通知書起30日內，以書面告知您的意見或要求，必要時我們的業務代表會與您聯絡。為利於變更順利執行，本公司若未能於前述時間收到 貴公司之書面文件，將視同 貴公司同意本項變更。

UTC will consider this change approved unless specific requests are addressed in writing within 30 days of announced or receipt of this PCN. We apologize for any inconvenience causing from this change, If you have any questions concerning this change, please contact your local sales or UTC's sales representative.

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適用產品(APPLICABLE PRODUCTS): - Discretes:

Discrete				
1N4148	2SB766A	2SD667	BCP69	HE8551
1N5819	2SB772	2SD669	BD139	IMX17
2N3055	2SB772S	2SD669A	BF488	IMX2
2N3904	2SB776	2SD880	BT151	IMZ2A
2N3906	2SB798	2SD882	BT169	K1109
2N4401	2SB824	2SD882S	BZT52B5V6S	K596
2N4403	2SB834	2SD965	C6084	KSA1625
2N5089	2SB857	2SD965A	CR03AM	KSC945
2N5401	2SC1384	2SK2751	D4120P	MCR100
2N5551	2SC1815	2SK303	D882SS	MCR101
2N6718	2SC2235	5302D	DTA114E	MCR106
2SA1012	2SC2655	8050S	DTA114Y	MJE13001
2SA1015	2SC2688	8550S	DTA123E	MJE13003
2SA1020	2SC2712	9012	DTA123J	MJE13003D
2SA1300	2SC2881	9013	DTA143E	MJE13005
2SA1507	2SC4548	9014	DTA143X	MJE3055T
2SA1700	2SC4617	9015	DTA143Z	ML1225
2SA1740	2SC4672	9018	DTB114E	MMBT1015
2SA1774	2SC4793	B772SS	DTB123Y	MMBT1616A
2SA1797	2SC5353B	BAS21	DTB143E	MMBT1815
2SA2016	2SC5569	BAT54	DTC114E	MMBT2222A
2SA684	2SC945	BAT54ADW	DTC114Y	MMBT2907A
2SA733	2SD1060	BAT54CDW	DTC115E	MMBT3904
2SA928A	2SD1616A	BAT54S	DTC123J	MMBT3906
2SB1116A	2SD1624	BAT54SDW	DTC124E	MMBT4401
2SB1132	2SD1664	BAV70	DTC143E	MMBT4403
2SB1151	2SD1691	BAV99	DTC143X	MMBT5088
2SB1182	2SD1802	BC337	DTC143Z	MMBT5401
2SB1188	2SD1803	BC338	DTC144E	MMBT5551
2SB1202	2SD1804	BC557	DTD113Z	MMBT733
2SB1260	2SD1816	BC817	DTD114E	MMBT9012
2SB1386	2SD1857	BC847	DTD143E	MMBT9013
2SB1412	2SD1898	BC856	HE8050	MMBT9014
2SB649	2SD2136	BC857	HE8051	MMBT9015
2SB649A	2SD313	BCP68	HE8550	MMBT9018

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適用產品(APPLICABLE PRODUCTS): - Discretes:

Discrete				
MMBT945	TF202	UT137FG		
MMBTA06	TF215	UT137G		
MMBTA13	TF218	UT138E		
MMBTA42	TIP102	UT138F		
MMBTA44	TIP122	UT138FE		
MMBTA56	TIP31C	UT138FF		
MMBTA92	TIP41C	UT138FG		
MMBTA94	TIP42C	UT138G		
MMBTH10	UA11J	UT2274		
MPSA06	UBV45	X0202		
MPSA13	UD2195	X0202A		
MPSA42	UG8J	XL1225		
MPSA44	UN1518			
MPSA56	UP1753			
MPSA92	UP1853			
MPSA92M	UP1855			
MPSA94	UP2518			
PN2222A	UP2855			
PN2907A	US112N			
PUMT1	US112S			
PUMX1	USS4350			
PUMZ1	USS5350			
PZT2222A	UT131			
PZT2907A	UT134E			
PZT4033	UT134F			
PZT5401	UT134G			
PZT5551	UT136D			
PZTA42	UT136E			
PZTA92	UT136F			
RB521S30	UT136FF			
RB531S30	UT136G			
RB751V40	UT137E			
S8050	UT137F			
S8550	UT137FE			
SB2202	UT137FF			

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適用產品(APPLICABLE PRODUCTS): - ICs:

IC					
319	78L09	79L15	88C21	LM386	MC4558
3308	78L09M	79T05A	88C27	LM393	MC4580
3414	78L10	8120	88C29	LM4041	P2576
3544	78L12	8122	88C34	LM4880	P3576
4051	78L12M	8125	A7240	LM7805	P3596
4052	78L15	8130	BA6208	LM7806	PA1517
4053	78L18	8133	BA6220	LM7807	PA2005
75185	78M05	8142	F2961	LM7808	PA7522
75232	78M06	81C15	KA22241	LM7809	PA9069A
75323	78M08	81C16	KA8602	LM7810	R1MX55
78D05	78M09	81C18	L38812	LM7812	SK8509
78D05A	78M12	81C19	L6726	LM7815	SR2803
78D05L	78M15	81C21	L8012	LM7818	T78040
78D06	78M18	81C22	L8115	LM7905	T78041
78D06A	78N06	81C23	L8211	LP2950	T8172
78D06L	78T05	81C25	L8561	LP2951	TA7368P
78D07A	78T05A	81C26	L8562	LR1106	TA8227AP
78D08	78T06	81C27	LD1117	LR1116	TBA820M
78D08A	78T06A	81C28	LD1117A	LR1116B	TDA1519C
78D08L	78T07A	81C29	LD1985	LR1118	TDA2003
78D09	78T08	81C30	LD2117	LR18115	TDA2030
78D09A	78T08A	81C31	LD2117A	LR3965	TDA2030A
78D09L	78T09	81C33	LD2985	LS1240A	TDA2050
78D10A	78T09A	81C36	LM1875	LV321	TDA2822
78D12	78T10A	81C41	LM224	LV358	TDA2822H
78D12A	78T12	81C45	LM2937	M2073	TDA6375
78D12L	78T12A	81C46	LM2940	M2125	TDA7266
78D15	78T15	81C50	LM2954	M29150B	TDA7375
78D15A	78T15A	81N25	LM317	MC1458	TDA7377
78D18	78T18	81N29	LM317A	MC3361BP	TDA7388
78D18A	78T18A	82C10	LM317L	MC34018	TDA7496
78L05	79D05	82C20	LM317M	MC34063A	TDA7496L
78L05M	79D05A	82C22	LM324	MC34074	TDA7499
78L06	79L05	82C34	LM339	MC34118	TDA8496
78L08	79L12	8507	LM358	MC34119	TEA1062

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適用產品(APPLICABLE PRODUCTS): - ICs:

IC				
TEA1062AN	U74AHC1G32	U74HC4052	U74LVC2G86	UR5516
TEA1062N	U74AHC34	U74HC4094	U74LVC32A	UR5516A
TEA1110A	U74AHC373	U74HC563	U74LVC34	UR6225
TL062	U74AHC374	U74HC564	U74LVC573	UT13243
TL072	U74AHC3G06	U74HC574	U74LVC86A	UT7136
TL074	U74AHC3G14	U74HC595A	UA31136	UZ1084
TL082	U74AHC3G17	U74HC640	UA9287	UZ1085
TL084	U74AHC3G34	U74HC86	UC33063A	UZ1086
TL1093	U74AHC86	U74HCT125	UC3842A	UZ2085
TL431	U74AHCT08	U74HCT138	UC3842B	
TL431K	U74AHCT125	U74HCT20	UC3843A	
TL431L	U74AHCT126	U74HCT245	UC3843B	
TL431NS	U74AHCT14A	U74HCT373	ULN2003	
TL494	U74AHCT1G00	U74HCT374	ULN2004	
TS391	U74AHCT1G02	U74HCT4094	ULN2803	
TS391A	U74AHCT1G08	U74HCT563	ULN2804	
TS391B	U74AHCT1G125	U74HCT573	UM21125	
TS391C	U74AHCT1G126	U74HCT574	UM601	
U74AC04	U74AHCT1G32	U74HCT640	UM603	
U74AC244	U74AHCT1G86	U74LVC00A	UM603A	
U74AC74	U74AHCT374	U74LVC04A	UM604	
U74ACT04	U74AHCT3G04	U74LVC14A	UM606	
U74ACT240	U74AHCT3G06	U74LVC17A	UM606D	
U74AHC04	U74AHCT3G17	U74LVC1G08	UM607BG	
U74AHC04A	U74AHCT3G34	U74LVC1G125	UM66T05L	
U74AHC07	U74AHCT86	U74LVC1G126	UM66T08L	
U74AHC08	U74HC00	U74LVC1G17	UM66T11L	
U74AHC125	U74HC138	U74LVC1G34	UM66T19L	
U74AHC126	U74HC14	U74LVC1G99	UM66T32L	
U74AHC14	U74HC164	U74LVC244	UPS602	
U74AHC14A	U74HC20	U74LVC2G00	UR132	
U74AHC157	U74HC245	U74LVC2G02	UR133	
U74AHC1G02	U74HC32	U74LVC2G132	UR133A	
U74AHC1G09	U74HC373	U74LVC2G158	UR533	
U74AHC1G14	U74HC374	U74LVC2G66	UR5512	

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適用產品(APPLICABLE PRODUCTS): - MOSFETs:

MOSFET				
10N50	4N50	UF640	UT5504	
10N60	4N60	UF730	UT6302	
10N65	4N65	UF830	UT6402	
10NN15	4N70	UF830Z	UT7401	
11N40	4N80	UF840	UT8205A	
12N10	4N90	UK3018	UT9435	
12N40	5N40	UK3019	UT9435H	
13N50	5N50	UT12N10	UT9564	
1N50Z	5N60	UT20N03	UT9971P	
1N60	5N65	UT2301	UTR4502	
1N60A	5N80	UT2302	UTT18P10	
1N60Z	5N90	UT2304	UTT6N10	
1N65	6N10	UT2305		
1N70Z	6N40	UT2305A		
2N60	6N60	UT2306		
2N60L	6N65	UT2308		
2N65	6N70	UT2309		
2N65L	6N90	UT2311		
2N70	7N10	UT2312		
2N7000	7N50	UT2327		
2N7000Z	7N60	UT2340		
2N7002	7N65	UT3006		
2N7002Z	7N70	UT3055		
2N7002ZDW	7N75	UT3400		
2N7002ZT	7N80	UT3401		
2N7002ZW	8N40	UT3401Z		
2N90	8N60	UT3403		
3N40	8N70	UT3404		
3N50	8N70	UT3409		
3N60	BSS138	UT3416		
3N65	MMBF170	UT3419		
3N65A	SSM3K333R	UT3458		
3N70	UF520	UT3N06		
3N80	UF601	UT4430		
3N90	UF630	UT5003		