### 日本テキサス・インスツルメンツ株式会社



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お客様各位

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# データシート訂正 (UCC1895/2895/3895 製品)のご案内

拝啓 貴社益々ご清栄の事とお喜び申し上げます。平素は弊社製品のご愛顧を賜り、厚く御礼申し上げます。さて、標題の件につきまして下記にご連絡させていただきます。ご査収の程、宜しくお願い申し上げます。

敬具

— 記 —

通知タイプ	☐Initial notice (Plan)	■Final notice						
	■Design/Specification	□Design	■Electrical	□Mechanical				
	Wafer Fab	□Site	□Process	□Material				
変更概要	Wafer Bump	□Site	□Process	□Material				
<b>发史似安</b>	Assembly	□Site	□Process	□Material				
	Test	□Site	□Process					
	Others	□Packing/Shipp	ing/Labeling	-				
	データシート 10 項目の記	記載訂正						
変更内容	現行 : 10 項目の記載							
	変更後:10項目の記載訂正							
対象製品	対象製品リスト参照							
変更時期	データシート訂正は8月7	下旬に実施済みで~	す。					
品質認定試験	□計画	□終了						
製品表示	■変更無し	□変更あり						
備考	_							

尚、ご不明な点、ご質問等がございましたら、担当営業或いは $\underline{pcn\ tij@list.ti.com}$ にお問い合わせ下さい。

以上

# 変更内容

内容:今回のお知らせは、通知のみを目的としたものになります。

発行済みのデータシートに訂正箇所がありその訂正をお知らせするものです。弊社 HPA(ハイパフォーマンスアナログ) ″UCC1895/2895/3895 ″製品について、製品の変更は一切ありませんが、製品特性をより反映する為にデータシートの記載訂正を実施しました。更新済のデータシートについては、下記webを参照ください。尚、今回の変更で訂正対象項目を除き、製品についての互換性(寸法/交差),外観,品質,信頼性への影響はありません。

理由:データシートの訂正の為

# 対象製品リスト

		713N3XHH 7 / 1	_	
		対象製品名		
UCC1895J	UCC2895DWTR	UCC2895N	UCC2895QG3	UCC3895PW
UCC1895J883B	UCC2895DWTR/1	UCC2895NG4	UCC3895DW	UCC3895PWG4
UCC1895L	UCC2895DWTR/1G4	UCC2895PW	UCC3895DWG4	UCC3895PWTR
UCC2895DW	UCC2895DWTR/3	UCC2895PWG4	UCC3895DWTR	UCC3895PWTRG4
UCC2895DW/1	UCC2895DWTR/3G4	UCC2895PWTR	UCC3895DWTRG4	UCC3895Q
UCC2895DWG4	UCC2895DWTRG4	UCC2895PWTRG4	UCC3895N	UCC3895QG3
UCC2895DWR/3	UCC2895MDWREP	UCC2895Q	UCC3895NG4	

### 詳細:

1. Datasheet#

 $SLUS157K \Rightarrow SLUS157L$ 

http://focus.ti.com/lit/ds/symlink/ucc1895.pdf

Item	Page/Location	Description of Change
C.1	Pg. 3, Title Heading, RECOMMENDED OPERATING CONDITIONS table	Added explanatory note (3)
C.2	Pg. 3, Supply voltage bypass capacitor, V <sub>DD</sub> , RECOMMENDED OPERATING CONDITIONS table	Change, TYPICAL spec from 0.1 to 10 x Cref. Also added explanatory note (1).
C.3	Pg. 3, Reference bypass capacitor C <sub>REF</sub> , RECOMMENDED OPERATING CONDITIONS table	Remove typical spec of 0.1 and add MIN spec of 0.1. Also added explanatory note (2).
C.4	Pg. 3, Delay resistor R <sub>DEL_AB</sub> , R <sub>DEL_CD</sub> , RECOMMENDED OPERATING CONDITIONS table	Change, units from pF to $k\Omega$
C.5	Pg. 3, Operating junction temperature, TJ	Added explanatory note (4)
C.6	Pg. 4, V <sub>IH_SYNC</sub> , "ELECTRICAL CHARACTERISTICS" table	Change parameter description from "High-level input voltage, SYNC" to "SYNC input threshold, SYNC"
C.7	Pg. 4, V <sub>OH_SYNC</sub> , "ELECTRICAL CHARACTERISTICS" table	Change parameter description from "High-level input voltage, SYNC" to "High-level output voltage, SYNC"
C.8	Pg. 4, V <sub>OH_SYNC</sub> , "ELECTRICAL CHARACTERISTICS" table	Change test conditions from "V <sub>CT</sub> = 2.6 V" to "VCT = 0.0 V"
C.9	Pg. 6, VDD, "TERMINAL FUNCTIONS" table	Added last sentence, "The addition of a 10-µF low ESR, low ESL between VDD and PGND is recommended."
C.10	Pg. 11, Chip supply (VDD), "DETAILED PIN DESCRIPTION section	Added last sentence, "The addition of a 10-µF low ESR, low ESL between VDD and PGND is recommended.

### C.1 Pg. 3, Title Heading, RECOMMENDED OPERATING CONDITIONS table

C.2 Pg. 3, Supply voltage bypass capacitor, VDD, RECOMMENDED OPERATING CONDITIONS table

C.3 Pg. 3, Reference bypass capacitor CREF, RECOMMENDED OPERATING CONDITIONS table

C.4 Pg. 3, Delay resistor RDEL\_AB, RDEL\_CD, RECOMMENDED OPERATING CONDITIONS table

C.5 Pg. 3, Operating junction temperature, TJ

### **RECOMMENDED OPERATING CONDITIONS**

	MIN	TYP	MAX	UNIT
Supply voltage, V <sub>DD</sub>	9		16.5	V
Supply voltage bypass capacitor, V <sub>DD</sub>		0.1		-
Reference bypass capacitor, C <sub>REF</sub>		0.1	1.0	μF
Timing capacitor, C <sub>T</sub> (for 500 kHz switching frequency)		220		pF
Timing resistor, R <sub>T</sub> (for 500 kHz switching frequency)		82		kΩ
Delay resistor RDEL_AB, RDEL_CD	2.5		40	pF
Operating junction temperature, T <sub>J</sub> (3)	-55		125	°C

<sup>(3)</sup> It is not recommended that the device operate under conditions beyond those specified in this table for extended periods of time.



## RECOMMENDED OPERATING CONDITIONS(3)

	MIN	TYP	MAX	UNIT
Supply voltage, V <sub>DD</sub>	9	<i></i>	16.5	V
Supply voltage bypass capacitor, VDD(1)	>	10 x C <sub>REF</sub>		-
Reference bypass capacitor, CREF(2);	0.1		1.0	μF
Timing capacitor, C <sub>T</sub> (for 500 kHz switching frequency)		220		pF
Timing resistor, R <sub>T</sub> (for 500 kHz switching frequency)		82		, kΩ
Delay resistor RDEL_AB, RDEL_CD_	2.5		40	[ KX ]
Operating junction temperature, T <sub>J</sub> (4)	-55		125_	°C

<sup>(1)</sup> The V<sub>DD</sub> capacitor should be a low ESR, ESL ceramic capacitor located directly across the VDD and PGND pins. A larger bulk capacitor s hould belocated as physically close as possible to the V<sub>DD</sub> pins.

# C.6 Pg. 4, VIH\_SYNC, "ELECTRICAL CHARACTERISTICS" table C.7 Pg. 4, VOH\_SYNC, "ELECTRICAL CHARACTERISTICS" table C.8 Pg. 4, VOH\_SYNC, "ELECTRICAL CHARACTERISTICS" table

**ELECTRICAL CHARACTERISTICS**  $V_{DD}$  = 12 V,  $R_T$  = 82 kΩ,  $C_T$  = 220 pF,  $R_{DELAB}$  = 10 kΩ,  $R_{DELCD}$  = 10 kΩ,  $C_{REF}$  = 0.1 μF,  $C_{VDD}$  = 0.1 μF and no load on the outputs,  $T_A$  =  $T_J$ .  $T_A$  = 0°C to 70°C for UCC3895x,  $T_A$  =  $T_A$ 0°C to 85°C for UCC2895x and  $T_A$  =  $T_A$ 0°C to 125°C for the UCC1895x. (unless otherwise noted)

	PARAMETER	TEST C	TEST CONDITIONS			TYP	MAX	UNITS
OSCILLATOR	L .	_						
V <sub>IH</sub> _SYNC	High-level input voltage, SYNC				2.05	2.10	2.40	
VOH_SYNC	High-level input voltage, SYNC	I <sub>SYNC</sub> = -400 μA,	$V_{CT} = 2.6 \text{ V}$		4.1	4.5	5.0	V
V <sub>OL_SYNC</sub>	Low-level output voltage, SYNC	I <sub>SYNC</sub> = 100 μA,	V <sub>CT</sub> = 2.6 V		0.0	0.5	1.0	



**ELECTRICAL CHARACTERISTICS**  $V_{DD}$  = 12 V,  $R_T$  = 82 kΩ,  $C_T$  = 220 pF,  $R_{DELAB}$  = 10 kΩ,  $R_{DELCD}$  = 10 kΩ,  $C_{REF}$  = 0.1 μF,  $C_{VDD}$  = 0.1 μF and no load on the outputs,  $T_A$  =  $T_J$ .  $T_A$  = 0°C to 70°C for UCC3895x,  $T_A$  = -40°C to 85°C for UCC2895x and  $T_A$  = -55°C to 125°C for the UCC1895x. (unless otherwise noted)

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
OSCILLATOR					
VIH_SYNC SYNC input threshold, SYNC		2.05	2.10	2.40	
VOH_SYNC , High-level output voltage, SYNC ,	I <sub>SYNC</sub> = -400 µA, _V <sub>GT</sub> = 2.6.V.	4.1	4.5	5.0	V
VOL SYNC Low-level output voltage, SYNC	I <sub>SYNC</sub> = 100 μA, V <sub>CT</sub> = 0.0 V	0.0	0.5	1.0	

<sup>(2)</sup> The V<sub>REF</sub> capacitor should be a low ESR, ESL ceramic capacitor located directly across the REF and GND pins. If a larger capacitor is d esired for the V<sub>REF</sub> then it should be located near the V<sub>REF</sub> cap and connected to the V<sub>REF</sub> pin with a resistor of 51 Ω or greater. The bulk capacitor on V<sub>DD</sub> must be a factor of 10 greater than the total V<sub>REF</sub> capacitance.

VDD must be a factor of 10 greater than the total VREF capacitance.

(3) It is recommended that there be a single point grounded between GND and PGND directly under the device. There should be a seperate ground plane associated with the GND pin and all components associated with pins 1 through 12 plus 19 and 20 be located over this gmod plane. Any connections associated with these pins to ground should be connected to this ground plane

<sup>(4)</sup> It is not recommended that the device operate under conditions beyond those specified in this table for extended periods of time.

# C.9 Pg. 6, VDD, "TERMINAL FUNCTIONS" table

### **TERMINAL FUNCTIONS**

TERMI	NAL		DESCRIPTION
NAME	NO.	1/0	DESCRIPTION
VDD	15	ı	Power supply input pin. VDD must be bypassed with a minimum of a 1.0µF low ESR, low ESL capacitor to ground.

### **TERMINAL FUNCTIONS**



TERMI	NAL	1/0	DESCRIPTION
NAME	NO.	1/0	DESCRIPTION
VDD	15	I	Power supply input pin . VDD must be bypassed with a minimum of a 1.0µF.low ESR, low ESL capacitor to ground! The addition of a 10¬µF low ESR, low ESL between VDD and PGND is recommended.

## C.10 Pg. 11, Chip supply (VDD), "DETAILED PIN DESCRIPTION sectionDESCRIPTION section

### Chip Supply (VDD)

This is the input pin to the chip. VDD must be bypassed with a minimum of 1.QrF low ESR, low ESL capacitor to ground.

## Chip Supply (VDD)

This is the input pin to the chip. VDD must be bypassed with a minimum of 1.Q.F low ESR, low ESL capacitor to ground. The addition of a 10- $\mu$ F low ESR, low ESL between VDD and PGND is recommended.