

12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20110608000

Qualification of an alternate material set for assembly with Au wire and add Cu as an Additional Wire Base Metal Option for select devices in the SOIC package – Group 1A
Change Notification / Sample Request

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

We request you acknowledge receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance of the change. If you require samples or additional data to support your evaluation, please request within 30 days.

The changes discussed within this PCN will not take effect any earlier than **90** days from the date of this notification, unless customer agreement has been reached on an earlier implementation of the change. This notification period is per TI's standard process.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice, contact your local Field Sales Representative or the PCN Manager (PCN www admin team@list.ti.com).

Sincerely,

PCN Team SC Business Services Phone: +1(214) 480-6037 Fax: +1(214) 480-6659

| PCN Number: 20110608000 PCN Date: 06 | | | | | | | 06 | /14/2011 | | | | | |
|--|---|-------------------------|---------|------------------------------|---|-------|--------------------------------|----------|-------------|----------|---------|----------------------------------|------------|
| Title: | Qualification of an alternate material set for assembly with Au wire and add Cu as an additional wire base metal option for select devices in the SOIC package – Group 1A | | | | | | | | | | | | |
| Customer PCN_ww_admin_te | | | _tea | team@list.ti.com | | none: | e: +1(214)480- 6037 | | 480- | Dep | t: | Quality Services | |
| Propose | d 1 | st Ship Date | : | | 09/14/2011 | | timate ailabil | | mple | | | Date provided at sample request. | |
| Change | Тур | e: | | | | | | | | | | | |
| Ass | emb | ly Site | | | Assembly Prod | ess | | | \boxtimes | Assem | bly Ma | ater | ials |
| Des | ign | | | | Electrical Spec | ifica | ation | | | Mechai | nical S | Spec | cification |
| Tes: | t Sit | e | | | Packing/Shipp | ing/ | <mark>/Labeli</mark> i | ng | | Test Pr | ocess | | |
| ☐ Waf | er B | ump Site | | | Wafer Bump M | late | rial | | | Wafer | Bump | Pro | cess |
| Waf | er F | ab Site | | | Wafer Fab Mat | eria | ıls | | | Wafer | Fab P | roce | ess |
| | | | | | PCN I | Det | ails | | | | | | |
| Descrip | tion | of Change: | | | | | | | | | | | |
| | | | | | terial set for ass at devices in the | SOI | C pack | age – | Grou | up 1A. S | ee tal | ole l | oelow: |
| | | | | | Current Assemb | oly | | | | _ | | | nd wire |
| | | | | | Au wire | | Au wi | | | | | op | otion |
| Materia | | | | _ | | | | | | | | | |
| Mold compound | | | 4205694 | | | | 1880 | | | | 1880 | | |
| Die attach | | | 4042500 | | | | 147C | | 421147 | | | | |
| Wire dia | Wire dia. (Mils) | | | 0.8, 0.9, 0.96, 1.0, 1.15 | | 0.8 | 0.8, 0.9, 0.9 1.15 | | | | 0 | .96 | |
| | | | | _ | | | | | | | | | |
| Materia | | | | | 4005/04 | | 404 | 4000 | | | 404 | 1000 | |
| Mold co | | ound | | | 4205694 | | 4211880 | | | | | 1880 | |
| Die atta | | A:1 \ | | | 4147858 | | 4147858, 42° 0.8, 0.9, 0.96 | | | 4147 | | , 4211470 | |
| Wire dia | a. (N | /IIIS) | | | 0.8, 0.9, 0.96, 1 1.15 | .0, | 0.8 | | 0.96 15 | , 1.0, | | | .96 |
| Reason | for | Change: | | | | | | | | | | | |
| Continuity of supply. 1) To align with world technology trends and use wiring with enhanced mechanical and electrical properties 2) Maximize flexibility within our Assembly/Test production sites. 3) Cu is easier to obtain and stock | | | | | | | | | | | | | |
| Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative): | | | | | | | | gative): | | | | | |
| None. | | | | | | | | | | | | | |
| Changes to product identification resulting from this PCN: | | | | | | | | | | | | | |
| None. | | | | | | | | | | | | | |
| Product | Product Affected: | | | | | | | | | | | | |
| Please see page two of this document for your list of PCN affected devices. | | | | | | | | | | | | | |

| Qualification Plan: This qualification has been developed for the validation of this change. The qualification data | | | | | | | | |
|---|---------------------------------------|-----------------------------------|--------------------|----------|--------------------------|------------|----------|--|
| validates that the propose | • | | | | • | | | |
| Qualification Schedule: | Sta | art: Ma | ıy 2011 | End | : | August 20 | 11 | |
| O | Qual Vehicle 1: MAX232DR (MSL 1-260C) | | | | | | | |
| Package Construction Details | | | | | | | | |
| Assembly Site: | TI Malay | | | | ompound: 4211880 | | | |
| # Pins-Designator, Family: | 16-D, SC | IC | | Mount C | ompound: | 4211470 |) | |
| Lead frame (Finish, Base): | NiPdAu, (| | | | Bond Wire: | 0.96 Mil [| Dia., Cu | |
| Qualification: | | st Results | <u> </u> | | | | , | |
| | | .0.1. | | | Sample | Size (PAS | S/FAIL) | |
| Reliability Test | Con | ditions | | | Lot#1 | Lot#2 | Lot#3 | |
| Steady-state Life Test | 150 | C (168, 300 h | nrs) | | 77/0 | 77/0 | 77/0 | |
| Electrical Characterization | | • | • | | 30/0 | - | - | |
| **High Temp. Storage Bal | ce 170 | C (420hrs) | | | 77/0 | 77/0 | 77/0 | |
| **Biased HAST | | C/85%RH (96 | hrs) | | 77/0 | 77/0 | 77/0 | |
| **Autoclave 121C | 1 | C, 2 atm (96 | | | 77/0 | 77/0 | 77/0 | |
| **T/C -65C/150C | | C/+150C (500 | |) | 77/0 | 77/0 | 77/0 | |
| Visual / Mechanical | - | • | - | | 328/0 | 328/0 | 328/0 | |
| Lead Pull | # of unit | leads to dest | truction, min | 22/0 | 22/0 | 22/0 | | |
| Flammability | | nod A - UL94- | 0 | 5/0 | 5/0 | 5/0 | | |
| Flammability | | nod B - IEC 6 | | | 5/0 | 5/0 | 5/0 | |
| Flammability | | nod C - UL 16 | | | 5/0 | 5/0 | 5/0 | |
| Bond Strength | | | | | 76/0 | 76/0 | 76/0 | |
| Die Shear | 76 L | all bonds, mi | II. 3 UIIIIS | | 10/0 | 10/0 | 10/0 | |
| Manufacturability | - (nor | mfg. Site spe | ocification) | | 1/0 | 1/0 | 1/0 | |
| **Thermal Shock | | C/+150C (500 | | ` | 77/0 | 77/0 | 77/0 | |
| X-ray | | side only) | <i>5,</i> 1000 Cyc | 5/0 | 5/0 | 5/0 | | |
| Moisture Sensitivity | | el 1 @ 260C p | 202k + 5 / OC | \ | 12/0 | 12/0 | 12/0 | |
| | | | | 12/0 | 12/0 | 12/0 | | |
| Notes **- Preconditioning sequence: Level 1-260C. Qual Vehicle 2 : RC4558DR (MSL 1-260C) | | | | | | | | |
| Package Construction Details | | | | | | | | |
| Assembly Site: | TI Malay | | | ompound: | 4211880 | | | |
| # Pins-Designator, Family: | 8-D, SOI | 3 | | | mpound: | 4211470 | | |
| Lead frame (Finish, Base): | NiPdAu, (| | | | ond Wire: 0.96 Mil Dia., | | | |
| Qualification: Plan | Пте | st Results | | | | Cu | | |
| _ | | | | | Sample | Size (PAS | S/FAIL) | |
| Reliability Test | Con | ditions | | | Lot#1 | Lot#2 | Lot#3 | |
| Steady-state Life Test | 150 | 150C (168, 300 hrs) | | | 77/0 | - | - | |
| Electrical Characterization | | - | | | | - | - | |
| **High Temp. Storage Bal | | 170C (420hrs) | | | | - | - | |
| **Biased HAST | | 130C/85%RH (96 Hrs) | | | | - | - | |
| **Autoclave 121C | | 121C, 2 atm (96 Hrs) | | | | - | - | |
| **T/C -65C/150C | | -65C/+150C (500, 1000* Cyc) | | | | 77/0 | 77/0 | |
| Visual / Mechanical | - | -030/ + 1300 (300, 1000 Gyc) | | | | _ | - | |
| | # of | # of leads to destruction, min. 3 | | | | | | |
| Lead Pull | unit | units | | | | _ | - | |

| Flammability | Mothod A III O | 1.0 | 5/0 | _ | | | | | |
|---|---------------------------------------|------------------------|------------------------------|------------------|------------------|--|--|--|--|
| Flammability Flammability | | Method A - UL94-0 | | | - | | | | |
| , | | Method B - IEC 695-2-2 | | | - | | | | |
| Flammability | Method C - UL 1 | | 5/0 76/0 | - | - | | | | |
| Bond Strength | 76 ball bonds, m | in. 3 units | | - | - | | | | |
| Die Shear | - C:t | ! £! ! \ | 10/0 | - | - | | | | |
| Manufacturability | (per mfg. Site sp | | 1/0 | 77/0 | 77/0 | | | | |
| **Thermal Shock | -65C/+150C (50 | 00, 1000° Cyc) | 77/0 | 77/0 | 77/0 | | | | |
| X-ray | (top side only) | | 5/0 | 10/0 | 10/0 | | | | |
| Moisture Sensitivity | (level 1 @ 260C | | 12/0 | 12/0 | 12/0 | | | | |
| Notes **- Preconditioning sequence: Level 1-260C. | | | | | | | | | |
| Qual Vehicle 3 : SN74LV14ADR (MSL 1-260C) | | | | | | | | | |
| | 1 | struction Details | | 1 | | | | | |
| Assembly Site: | TI Malaysia | Mold (| Compound: | 4211880 | | | | | |
| # Pins-Designator, Family: | 14-D, SOIC | Mount (| Compound: | 4211470 | | | | | |
| Lead frame (Finish, Base): | NiPdAu, Cu | В | ond Wire: | 0.96 Mil Cu | Dia., | | | | |
| Qualification: Plan | ☐ Test Results | | | | | | | | |
| Reliability Test | Conditions | | Sample | Size (PASS/FAIL) | | | | | |
| Reliability Test | Conditions | | Lot#1 | Lot#2 | Lot#3 | | | | |
| Steady-state Life Test | 150C (168, 300 | hrs) | 77/0 | - | - | | | | |
| Electrical Characterization | - | | 30/0 | - | - | | | | |
| **High Temp. Storage Bal | ke 170C (420hrs) | | 77/0 | - | ı | | | | |
| **Biased HAST | 130C/85%RH (9 | 6 Hrs) | 77/0 | - | - | | | | |
| **Autoclave 121C | 121C, 2 atm (96 | Hrs) | 77/0 | - | - | | | | |
| **T/C -65C/150C | -65C/+150C (50 | 00, 1000* Cyc) | 77/0 | 77/0 | 77/0 | | | | |
| Visual / Mechanical | - | | 328/0 | - | - | | | | |
| Lood Dull | | struction, min. 3 | 22/0 | - | - | | | | |
| Lead Pull Flammability | units Method A - UL94 | 1-0 | 5/0 | _ | _ | | | | |
| Flammability | Method B - IEC | | 5/0 | _ | _ | | | | |
| Flammability | Method C - UL 1 | | 5/0 | _ | _ | | | | |
| Bond Strength | 76 ball bonds, m | | 76/0 | _ | _ | | | | |
| Die Shear | - | iii. o diiits | 10/0 | _ | _ | | | | |
| Manufacturability | (per mfg. Site s | necification) | 1/0 | _ | _ | | | | |
| **Thermal Shock | -65C/+150C (50 | | 77/0 | 77/0 | 77/0 | | | | |
| X-ray | (top side only) | .c, .cco oyo, | 5/0 | - | - | | | | |
| Moisture Sensitivity | (level 1 @ 260C | peak +5/-00) | 12/0 | 12/0 | 12/0 | | | | |
| | ng sequence: Level 1- | | | | | | | | |
| | ıal Vehicle 4 : ULN2 | | 600) | | | | | | |
| Gu | | | 555) | | | | | | |
| Apparetti CV | 1 | struction Details | Compress := -l | 4211880 | | | | | |
| Assembly Site: | - | Malaysia Mold C | | | | | | | |
| # Pins-Designator, Family: | 16-D, SOIC | | | |) | | | | |
| Lead frame (Finish, Base): | NiPdAu, Cu | | Bond Wire: 0.96 Mil Dia., Cu | | | | | | |
| Qualification: | Test Results | | | | | | | | |
| Reliability Test | Conditions | Conditions | | | S/FAIL) Lot#3 | | | | |
| Steady-state Life Test | 1500 (168 300 | 150C (168, 300 hrs) | | | - | | | | |
| Electrical Characterization | · · · · · · · · · · · · · · · · · · · | - 1500 (100, 300 1115) | | | _ | | | | |
| **High Temp. Storage Bal | İ | | 30/0 77/0 | _ | _ | | | | |
| Lingii romp. Storage bar | (4201113) | | 1110 | 1 | | | | | |

| **Biased HAST | 130C/85%RH (96 Hrs) | 77/0 | - | - | | | |
|---|---|-------|---|---|--|--|--|
| **Autoclave 121C | 121C, 2 atm (96 Hrs) | 77/0 | - | - | | | |
| **T/C -65C/150C | -65C/+150C (500, 1000* Cyc) | 77/0 | - | - | | | |
| Visual / Mechanical | - | 328/0 | - | - | | | |
| Lead Pull | # of leads to destruction, min. 3 units | 22/0 | - | - | | | |
| Bond Strength | 76 ball bonds, min. 3 units | 76/0 | - | - | | | |
| Die Shear | - | 10/0 | - | - | | | |
| Manufacturability | (per mfg. Site specification) | 1/0 | - | - | | | |
| **Thermal Shock | -65C/+150C (500, 1000* Cyc) | 77/0 | - | - | | | |
| X-ray | (top side only) | 5/0 | - | - | | | |
| Notes **- Preconditioning sequence: Level 1-260C. | | | | | | | |

Qualification Data:

| This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications. | | | | | | | | |
|---|-------------------------------|---|---------------------|-----------|----------|--------------------------|-----------------|--|
| Qualification Schedule: | art: | May | / 2011 | End: | | August 2011 | | |
| Qual Vehicle 1 : CD4053BM96 (MSL 1-260C) | | | | | | | | |
| Package / Die Construction Details | | | | | | | | |
| Assembly Site: | TI Mexic | o | | Mold Co | mpound: | 42 | 11880 | |
| # Pins-Designator, Family: | 16-D, S | SOIC | | Mount Co | mpound: | 41 | 47858 | |
| Leadframe (Finish, Base): | NiPdAu, | Cu | | Во | nd Wire: | 0.9 | 96 Mil Dia., Cu | |
| Qualification: Plan | Т | est Resu | ılts | | | | | |
| Reliability Test | Conditi | ons | | | | Sample Size Pass/Fail | | |
| **Steady-state Life Test | 150C (168, 300 Hrs) | | | | 77/0 | | | |
| Electrical Characterization | 1 | - | | | | | 30/0 | |
| **High Temp. Storage Ba | 150C (| 500, ⁻ | 1000 Hrs) | | | 77/0 | | |
| **Biased HAST | | 130C/8 | 130C/85%RH (96 Hrs) | | | | 77/0 | |
| **Autoclave 121C | | 121C, 2 atm (96 Hrs) | | | | 77/0 | | |
| **T/C -65C/150C | | -65C/+ | -150C | (500 Cyc) | | | 77/0 | |
| Visual / Mechanical | | - | - | | | | 328/0 | |
| Lead Pull | | # of leads to destruction, min. 3 units | | | | 22/0 | | |
| Flammability | | Method A - UL94-0 | | | | 5/0 | | |
| Flammability | | Method B - IEC 695-2-2 | | | | 5/0 | | |
| Flammability | Method C - UL 1694 | | | | 5/0 | | | |
| Bond Strength | 76 ball bonds, min. 3 units | | | | 76/0 | | | |
| Manufacturability | (per mfg. Site specification) | | | | 1/0 | | | |
| **Thermal Shock | -65C/+150C (500, 1000* Cyc) | | | | 77/0 | | | |
| X-ray | (Top-side only) | | | | 5/0 | | | |
| Moisture Sensitivity | (level 1 @ 260C peak +0/-5C) | | | | 12/0 | | | |
| Notes **- Preconditioning sequence: Level 1-260C. | | | | | | | | |

| Qual Vehicle 2 : LM358DR (MSL 1-260C) | | | | | | | | |
|--|----------|---------------------|-----------------------|----------------------|--------------|---------|--|--|
| Package / Die Construction Details | | | | | | | | |
| Assembly Site: | TIN | 1exico | Mold Compound | : 4211880 | | | | |
| # Pins-Designator, Family: | 8-0 |), SOIC | 1: 4147858 | | | | | |
| Leadframe (Finish, Base): | | dAu, Cu | Bond Wire | | lil Dia., Cu | | | |
| Qualification: Plan | | Test Results | | | | | | |
| | | | | Sample | Size (PAS | S/FAIL) | | |
| Reliability Test | | Conditions | | Lot#1 | Lot#3 | | | |
| Steady-state Life Test | | 150C (168, 300 l | hrs) | 77/0 | Lot#2 | - | | |
| Electrical Characterization | <u> </u> | _ | 1113) | 30/0 | _ | _ | | |
| **High Temp. Storage Ba | | 170C (420hrs) | | 77/0 | _ | _ | | |
| **Biased HAST | IKC | 130C/85%RH (9 | 6 Urc) | 77/0 | _ | _ | | |
| **Autoclave 121C | | 121C, 2 atm (96 | • | 77/0 | | _ | | |
| **T/C -65C/150C | | -65C/+150C (50 | | 77/0 | 77/0 | 77/0 | | |
| Visual / Mechanical | | -0307+1300 (30 | 0, 1000 Cyc) | 328/0 | | - | | |
| Visual / Mechanical | | # of leads to des | truction min 2 | 320/0 | - | - | | |
| Lead Pull | | units | druction, min. 3 | 22/0 | - | - | | |
| Flammability | | Method A - UL94 | -0 | 5/0 | _ | _ | | |
| Flammability | | Method B - IEC 6 | | 5/0 | _ | _ | | |
| Flammability | | Method C - UL 16 | | 5/0 | _ | _ | | |
| Bond Strength | | 76 ball bonds, m | | 76/0 | _ | _ | | |
| Die Shear | | 70 ball bollus, III | III. 3 UIIII. | 10/0 | | _ | | |
| | | (nor mfg. Site on | ocification) | 1/0 | | _ | | |
| Manufacturability | | (per mfg. Site sp | | 77/0 | 77/0 | 77/0 | | |
| **Thermal Shock | | -65C/+150C (50 | 0, 1000° Cyc) | 5/0 | | | | |
| X-ray | | (top side only) | nook : E / OC) | 12/0 | 12/0 | 12/0 | | |
| Moisture Sensitivity Notes **- Preconditioni | na c | (level 1 @ 260C | | 12/0 | 12/0 | 12/0 | | |
| | | equence: Level 1-2 | | -\ | | | | |
| | | | 94IDR (MSL 1-260 | 3) | | | | |
| | F | Package / Die Co | nstruction Details | | | | | |
| Assembly Site: | TIN | 1exico | Mold Compound | | | | | |
| # Pins-Designator, Family: | 16- | D, SOIC | d: 4147858 | | | | | |
| Leadframe (Finish, Base): | | dAu, Cu | Bond Wire | e: 0.96 Mil Dia., Cu | | | | |
| Qualification: Plan | <u> </u> | Test Results | | | | | | |
| Reliability Test | | Conditions | Sample Size (PASS/FAI | | | | | |
| Reliability Test | | Conditions | Lot#1 | Lot#2 | Lot#3 | | | |
| Steady-state Life Test | | 150C (168, 300 l | hrs) | 77/0 | 77/0 | 77/0 | | |
| Electrical Characterization | 1 | - | | 30/0 | - | - | | |
| **High Temp. Storage Ba | | 170C (420hrs) | 77/0 | 77/0 | 77/0 | | | |
| **Biased HAST | | 130C/85%RH (9 | 6 Hrs) | 77/0 | 77/0 | 77/0 | | |
| **Autoclave 121C | | 121C, 2 atm (96 | | 77/0 | 77/0 | 77/0 | | |
| **T/C -65C/150C | | -65C/+150C (50 | 77/0 | 77/0 | 77/0 | | | |
| Visual / Mechanical | | - | 328/0 | 328/0 | 328/0 | | | |
| | | # of leads to des | 22/0 | 22/0 | 22/0 | | | |
| Lead Pull | | units | 0 | E /O | | F /O | | |
| Flammability | | Method A - UL94 | | 5/0 | 5/0 | 5/0 | | |
| Flammability | | Method B - IEC 6 | | 5/0 | 5/0 | 5/0 | | |
| Flammability | | Method C - UL 16 | | 5/0 | 5/0 | 5/0 | | |
| Bond Strength | | 76 ball bonds, m | 76/0 | 76/0 | 76/0 | | | |

| Die Shear | - | 10 | | | ′ O | 10/0 | 10/0 | |
|--|--------------------------------|---|----------------|--------------------------|------------|----------|------|--|
| Manufacturability | er mfg. Site specification) 1/ | | | Э | 1/0 | 1/0 | | |
| **Thermal Shock -650 | | 5C/+150C (50 | 0, 1000* Cyc) | 77/ | 0 | 77/0 | 77/0 | |
| X-ray | (to | p side only) | | 5/0 | С | 5/0 | 5/0 | |
| Moisture Sensitivity | (le | vel 1 @ 260C | peak +5/-0C) | 12/ | ′ 0 | 12/0 | 12/0 | |
| Notes **- Preconditioning | g seque | ence: Level 1-2 | 260C. | | | | | |
| Qual Vehicle 4 : ULN2003ADR (MSL 1-260C) | | | | | | | | |
| Package / Die Construction Details | | | | | | | | |
| Assembly Site: | TI Mexic | 0 | Mold Compound | l: 42 | 1188 | 30 | | |
| # Pins-Designator, Family: | 16-D, S | SOIC | Mount Compound | l: 41 | 4785 | 58 | | |
| Leadframe (Finish, Base): | NiPdAu, | Cu | Bond Wire | : 0.9 | 96 Mil | Dia., Cu | | |
| Qualification: Plan | T. | est Results | | | | | | |
| Reliability Test | Conditions | | | Sample Size Pass/Fail | | | | |
| **Steady-state Life Test | 150C (168, 300 Hrs) | | | 77/0 | | | | |
| Electrical Characterization | - | | | | 30/0 | | | |
| **High Temp. Storage Bak | 150C (500, | 1000 Hrs) | | | 77/0 | | | |
| **Biased HAST | 130C/85%RH (96 Hrs) | | | | 77/0 | | | |
| **Autoclave 121C | 121C, 2 atm | (96 Hrs) | | | 77/0 | | | |
| **T/C -65C/150C | -65C/+150C (500 Cyc) | | | | 77/0 | | | |
| Visual / Mechanical | - | | | 328/0 | | | | |
| Lead Pull | | # of leads to destruction, min. 3 units | | | 22/0 | | | |
| Flammability | | Method A - UL94-0 | | | 5/0 | | | |
| Flammability | Method B - IEC 695-2-2 | | | 5/0 | | | | |
| Flammability | Method C - UL 1694 | | | 5/0 | | | | |
| Bond Strength | 76 ball bonds, min. 3 units | | | 76/0 | | | | |
| Manufacturability | (per mfg. Site specification) | | | 1/0 | | | | |
| **Thermal Shock | -65C/+150C (500, 1000* Cyc) | | | 77/0 | | | | |
| X-ray | (Top-side only) | | | 5/0 | | | | |
| Moisture Sensitivity | (level 1 @ 260C peak +0/-5C) | | | 12/0 | | | | |
| Notes **- Preconditioning | g seque | ence: Level 1-2 | 260C. | | | | | |

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

| Location | E-Mail |
|--------------|--------------------------------|
| USA | PCNAmericasContact@list.ti.com |
| Europe | PCNEuropeContact@list.ti.com |
| Asia Pacific | PCNAsiaContact@list.ti.com |
| Japan | PCNJapanContact@list.ti.com |