

Data sheet acquired from Harris Semiconductor SCHS210G

August 1997 - Revised June 2006

High-Speed CMOS Logic Triple 3-Input OR Gate

Features

- · Buffered Inputs
- Typical Propagation Delay: 8ns at V_{CC} = 5V, C_L = 15pF, T_A = 25°C
- Fanout (Over Temperature Range)

 - - -
- Wide Operating Temperature Range . . . -55°C to 125°C
- Balanced Propagation Delay and Transition Times
- Significant Power Reduction Compared to LSTTL Logic ICs
- HC Types
 - 2V to 6V Operation
 - High Noise Immunity: N_{IL} = 30%, N_{IH} = 30% of V_{CC} at V_{CC} = 5V
- HCT Types
 - 4.5V to 5.5V Operation
 - Direct LSTTL Input Logic Compatibility,
 V_{IL}= 0.8V (Max), V_{IH} = 2V (Min)
 - CMOS Input Compatibility, I_I \leq 1 μ A at V_{OL}, V_{OH}

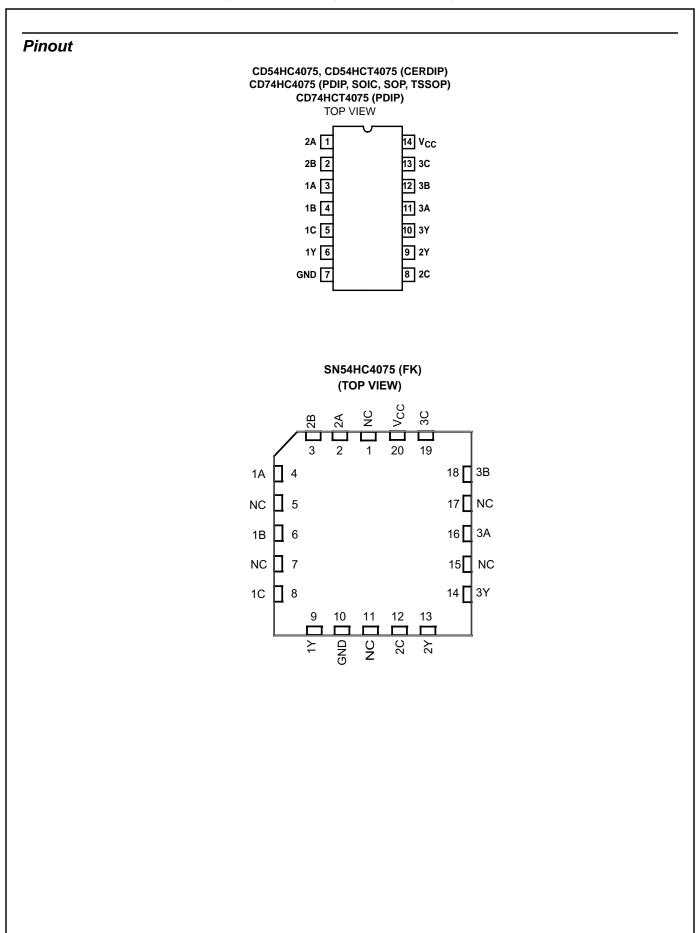
Description

The 'HC4075 and 'HCT4075 logic gates utilize silicon-gate CMOS technology to achieve operating speeds similar to LSTTL gates with the low power consumption of standard CMOS integrated circuits. All devices have the ability to drive 10 LSTTL loads. The HCT logic family is functionally pin compatible with the standard LS logic family.

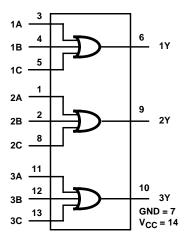
Ordering Information

| PART NUMBER | TEMP. RANGE (°C) | PACKAGE |
|----------------|---------------------|--------------|
| CD54HC4075F3A | -55 to 125 | 14 Ld CERDIP |
| CD54HC4075FK | -55 to 125 | 20 LCCC |
| CD54HCT4075F3A | -55 to 125 | 14 Ld CERDIP |
| CD74HC4075E | -55 to 125 | 14 Ld PDIP |
| CD74HC4075M | -55 to 125 | 14 Ld SOIC |
| CD74HC4075MT | -55 to 125 | 14 Ld SOIC |
| CD74HC4075M96 | -55 to 125 | 14 Ld SOIC |
| CD74HC4075NSR | -55 to 125 | 14 Ld SOP |
| CD74HC4075PW | -55 to 125 | 14 Ld TSSOP |
| CD74HC4075PWR | -55 to 125 | 14 Ld TSSOP |
| CD74HC4075PWT | -55 to 125 | 14 Ld TSSOP |
| CD74HCT4075E | -55 to 125 | 14 Ld PDIP |

NOTE: When ordering, use the entire part number. The suffixes 96 and R denote tape and reel. The suffix T denotes a small-quantity reel of 250.



Functional Diagram

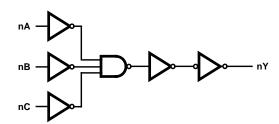


TRUTH TABLE

| | INPUTS | | | | | | | | |
|----|--------|----|---|--|--|--|--|--|--|
| nA | nB | nY | | | | | | | |
| L | L | L | L | | | | | | |
| Н | Х | X | Н | | | | | | |
| X | Н | X | Н | | | | | | |
| Х | Х | Н | Н | | | | | | |

H = High Voltage Level, L = Low Voltage Level, X = Irrelevant

Logic Diagram



Absolute Maximum Ratings

| DC Supply Voltage, V _{CC} | 5V to 7V |
|---|----------|
| DC Input Diode Current, I _{IK} | |
| For $V_1 < -0.5V$ or $V_1 > V_{CC} + 0.5V$ | ±20mA |
| DC Output Diode Current, I _{OK} | |
| For $V_O < -0.5V$ or $V_O > V_{CC} + 0.5V$ | ±20mA |
| DC Output Source or Sink Current per Output Pin, IO | |
| For $V_O > -0.5V$ or $V_O < V_{CC} + 0.5V$ | ±25mA |
| DC V _{CC} or Ground Current, I _{CC or} I _{GND} | ±50mA |

Operating Conditions

| Temperature Range (T _A)55°C to 125°C |
|---|
| Supply Voltage Range, V _{CC} |
| HC Types2V to 6V |
| HCT Types |
| DC Input or Output Voltage, V _I , V _O |
| Input Rise and Fall Time |
| 2V |
| 4.5V 500ns (Max) |
| 6V |

Thermal Information

| Package Thermal Impedance, θ_{JA} (see Note 1): |
|--|
| E (PDIP) Package80°C/W |
| M (SOIC) Package86°C/W |
| NS (SOP) Package |
| PW (TSSOP) Package 113°C/W |
| Maximum Junction Temperature (Hermetic Package or Die) . 175°C |
| Maximum Junction Temperature (Plastic Package) 150°C |
| Maximum Storage Temperature Range65°C to 150°C |
| Maximum Lead Temperature (Soldering 10s)300°C |
| (SOIC - Lead Tips Only) |

CAUTION: Stresses above those listed in "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress only rating and operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied.

NOTE:

1. The package thermal impedance is calculated in accordance with JESD 51-7.

DC Electrical Specifications

| | | TEST CONDITIONS | | v _{cc} | 25°C | | | -40°C T | O 85°C | -55°C TO 125°C | | |
|-----------------------------|-----------------|------------------------------------|--|-----------------|------|------|------|---------|--------|----------------|------|-------|
| PARAMETER | SYMBOL | V _I (V) | V _I (V) I _O (mA) | | MIN | TYP | MAX | MIN | MAX | MIN | MAX | UNITS |
| HC TYPES | | | | | | | | | | | | |
| High Level Input | V _{IH} | - | - | 2 | 1.5 | - | - | 1.5 | - | 1.5 | - | V |
| Voltage | | | | 4.5 | 3.15 | - | - | 3.15 | - | 3.15 | - | V |
| | | | | 6 | 4.2 | - | - | 4.2 | - | 4.2 | - | V |
| Low Level Input | V _{IL} | - | - | 2 | - | - | 0.5 | - | 0.5 | - | 0.5 | V |
| Voltage | | | | 4.5 | - | - | 1.35 | - | 1.35 | - | 1.35 | V |
| | | | | 6 | - | - | 1.8 | - | 1.8 | - | 1.8 | V |
| High Level Output | V _{OH} | V _{IH} or V _{IL} | -0.02 | 2 | 1.9 | - | - | 1.9 | - | 1.9 | - | V |
| Voltage CMOS Loads | | | -0.02 | 4.5 | 4.4 | - | - | 4.4 | - | 4.4 | - | V |
| OWIGO Educa | | | -0.02 | 6 | 5.9 | - | - | 5.9 | - | 5.9 | - | V |
| High Level Output | | | | -4 | 4.5 | 3.98 | - | - | 3.84 | - | 3.7 | - |
| Voltage TTL Loads | | | -5.2 | 6 | 5.48 | - | - | 5.34 | - | 5.2 | - | V |
| Low Level Output | V _{OL} | V _{IH} or V _{IL} | 0.02 | 2 | - | - | 0.1 | - | 0.1 | - | 0.1 | V |
| Voltage CMOS Loads | | | 0.02 | 4.5 | - | - | 0.1 | - | 0.1 | - | 0.1 | V |
| OWIGO Eddas | | | 0.02 | 6 | - | - | 0.1 | - | 0.1 | - | 0.1 | V |
| Low Level Output | | | 4 | 4.5 | - | - | 0.26 | - | 0.33 | - | 0.4 | V |
| Voltage TTL Loads | | | 5.2 | 6 | - | - | 0.26 | - | 0.33 | - | 0.4 | V |
| Input Leakage Current | lı | V _{CC} or GND | - | 6 | - | - | ±0.1 | - | ±1 | - | ±1 | μΑ |
| Quiescent Device Current | Icc | V _{CC} or GND | 0 | 6 | - | - | 2 | - | 20 | - | 40 | μΑ |

DC Electrical Specifications (Continued)

| | | TEST CONDITIONS | | V _{CC} | | 25°C | | | O 85°C | -55°C TO 125°C | | |
|--|------------------------------|------------------------------------|---------------------|-----------------|------|------|------|------|--------|----------------|-----|-------|
| PARAMETER | SYMBOL | V _I (V) | I _O (mA) | (V) | MIN | TYP | MAX | MIN | MAX | MIN | MAX | UNITS |
| HCT TYPES | | | | | - | - | - | - | - | | | |
| High Level Input Voltage | V _{IH} | - | - | 4.5 to 5.5 | 2 | - | - | 2 | - | 2 | - | V |
| Low Level Input Voltage | V _{IL} | - | - | 4.5 to 5.5 | - | - | 0.8 | - | 0.8 | - | 0.8 | V |
| High Level Output Voltage CMOS Loads | Voн | V _{IH} or V _{IL} | -0.02 | 4.5 | 4.4 | - | - | 4.4 | - | 4.4 | - | V |
| High Level Output Voltage TTL Loads | | | -4 | 4.5 | 3.98 | - | - | 3.84 | - | 3.7 | - | V |
| Low Level Output Voltage CMOS Loads | V _{OL} | V _{IH} or V _{IL} | 0.02 | 4.5 | - | - | 0.1 | - | 0.1 | - | 0.1 | V |
| Low Level Output Voltage TTL Loads | | | 4 | 4.5 | - | - | 0.26 | - | 0.33 | - | 0.4 | V |
| Input Leakage Current | lį | V _{CC} and GND | 0 | 5.5 | - | | ±0.1 | - | ±1 | - | ±1 | μΑ |
| Quiescent Device Current | Icc | V _{CC} or GND | 0 | 5.5 | - | - | 2 | - | 20 | - | 40 | μΑ |
| Additional Quiescent Device Current Per Input Pin: 1 Unit Load | ΔI _{CC} (Note 2) | V _{CC} -2.1 | - | 4.5 to 5.5 | - | 100 | 360 | - | 450 | - | 490 | μΑ |

NOTE:

HCT Input Loading Table

| INPUT | UNIT LOADS |
|-------|------------|
| All | 1.6 |

NOTE: Unit Load is ΔI_{CC} limit specified in DC Electrical Table, e.g. 360µA max at 25°C.

Switching Specifications Input t_{r} , $t_{f} = 6$ ns

| | | TEST | | 25°C | | -40°C TO 85°C | | -55°C TO 125°C | | | |
|-----------------------------|-------------------------------------|-----------------------|---------------------|------|-----|------------------|-----|----------------|-----|-----|-------|
| PARAMETER | SYMBOL | CONDITIONS | V _{CC} (V) | MIN | TYP | MAX | MIN | MAX | MIN | MAX | UNITS |
| HC TYPES | | | | | | - | _ | | - | - | |
| Propagation Delay, | t _{PLH} , t _{PHL} | C _L = 50pF | 2 | - | - | 100 | - | 125 | - | 150 | ns |
| Input to Output (Figure 1) | | | 4.5 | - | - | 20 | - | 25 | - | 30 | ns |
| | | | 6 | - | - | 17 | - | 21 | - | 26 | ns |
| | | C _L = 15pF | 5 | - | 8 | - | - | - | - | - | ns |
| Transition Times (Figure 1) | t _{TLH} , t _{THL} | C _L = 50pF | 2 | - | - | 75 | - | 95 | - | 110 | ns |
| | | | 4.5 | - | - | 15 | - | 19 | - | 22 | ns |
| | | | 6 | - | - | 13 | - | 16 | - | 19 | ns |
| Input Capacitance | C _{IN} | - | - | - | _ | 10 | - | 10 | - | 10 | pF |

^{2.} For dual-supply systems theoretical worst case (V_I = 2.4V, V_{CC} = 5.5V) specification is 1.8mA.

Switching Specifications Input t_r , $t_f = 6ns$ (Continued)

| | | TEST | | 25°C | | -40°C TO 85°C | | -55°C T | | | |
|--|-------------------------------------|-----------------------|---------------------|------|-----|------------------|-----|---------|-----|-----|-------|
| PARAMETER | SYMBOL | CONDITIONS | V _{CC} (V) | MIN | TYP | MAX | MIN | MAX | MIN | MAX | UNITS |
| Power Dissipation Capacitance (Notes 3, 4) | C _{PD} | - | 5 | - | 26 | - | - | - | - | - | pF |
| HCT TYPES | | | | | | | | | | | |
| Propagation Delay, Input to | t _{PLH} , t _{PHL} | C _L = 50pF | 4.5 | - | - | 24 | - | 30 | - | 36 | ns |
| Output (Figure 2) | | C _L = 15pF | 5 | - | 9 | - | - | - | - | - | ns |
| Transition Times (Figure 2) | t _{TLH} , t _{THL} | C _L = 50pF | 4.5 | - | - | 15 | - | 19 | - | 22 | ns |
| Input Capacitance | C _{IN} | - | - | - | - | 10 | - | 10 | - | 10 | pF |
| Power Dissipation Capacitance (Notes 3, 4) | C _{PD} | - | 5 | - | 28 | - | - | - | - | - | pF |

NOTES:

- 3. $C_{\mbox{\scriptsize PD}}$ is used to determine the dynamic power consumption, per gate.
- 4. $P_D = V_{CC}^2 f_i (C_{PD} + C_L)$ where f_i = Input Frequency, C_L = Output Load Capacitance, V_{CC} = Supply Voltage.

Test Circuits and Waveforms

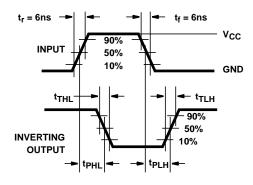


FIGURE 1. HC AND HCU TRANSITION TIMES AND PROPAGATION DELAY TIMES, COMBINATION LOGIC

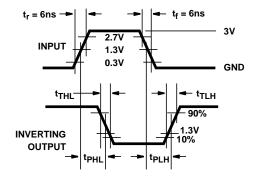


FIGURE 2. HCT TRANSITION TIMES AND PROPAGATION DELAY TIMES, COMBINATION LOGIC

5-Sep-2011

PACKAGING INFORMATION

| Orderable Device | Status (1) | Package Type | Package Drawing | Pins | Package Qty | Eco Plan ⁽²⁾ | Lead/ Ball Finish | MSL Peak Temp ⁽³⁾ | Samples (Requires Login) |
|------------------|------------|--------------|--------------------|------|-------------|----------------------------|----------------------|------------------------------|-----------------------------|
| 5962-87722012A | ACTIVE | LCCC | FK | 20 | 1 | TBD | POST-PLATE | N / A for Pkg Type | |
| 5962-8772201CA | ACTIVE | CDIP | J | 14 | 1 | TBD | Call TI | Call TI | |
| CD54HC4075F3A | ACTIVE | CDIP | J | 14 | 1 | TBD | A42 | N / A for Pkg Type | |
| CD54HC4075FK | ACTIVE | LCCC | FK | 20 | 1 | TBD | POST-PLATE | N / A for Pkg Type | |
| CD54HCT4075F3A | ACTIVE | CDIP | J | 14 | 1 | TBD | A42 | N / A for Pkg Type | |
| CD74HC4075E | ACTIVE | PDIP | N | 14 | 25 | Pb-Free (RoHS) | CU NIPDAU | N / A for Pkg Type | |
| CD74HC4075EE4 | ACTIVE | PDIP | N | 14 | 25 | Pb-Free (RoHS) | CU NIPDAU | N / A for Pkg Type | |
| CD74HC4075M | ACTIVE | SOIC | D | 14 | 50 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075M96 | ACTIVE | SOIC | D | 14 | 2500 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075M96E4 | ACTIVE | SOIC | D | 14 | 2500 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075M96G4 | ACTIVE | SOIC | D | 14 | 2500 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075ME4 | ACTIVE | SOIC | D | 14 | 50 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075MG4 | ACTIVE | SOIC | D | 14 | 50 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075MT | ACTIVE | SOIC | D | 14 | 250 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075MTE4 | ACTIVE | SOIC | D | 14 | 250 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075MTG4 | ACTIVE | SOIC | D | 14 | 250 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075NSR | ACTIVE | SO | NS | 14 | 2000 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075NSRG4 | ACTIVE | SO | NS | 14 | 2000 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075PW | ACTIVE | TSSOP | PW | 14 | 90 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075PWE4 | ACTIVE | TSSOP | PW | 14 | 90 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |





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| Orderable Device | Status (1) | Package Type | Package Drawing | Pins | Package Qty | Eco Plan ⁽²⁾ | Lead/ Ball Finish | MSL Peak Temp ⁽³⁾ | Samples (Requires Login) |
|------------------|------------|--------------|--------------------|------|-------------|----------------------------|----------------------|------------------------------|-----------------------------|
| CD74HC4075PWG4 | ACTIVE | TSSOP | PW | 14 | 90 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075PWR | ACTIVE | TSSOP | PW | 14 | 2000 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075PWRE4 | ACTIVE | TSSOP | PW | 14 | 2000 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075PWRG4 | ACTIVE | TSSOP | PW | 14 | 2000 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075PWT | ACTIVE | TSSOP | PW | 14 | 250 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075PWTE4 | ACTIVE | TSSOP | PW | 14 | 250 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HC4075PWTG4 | ACTIVE | TSSOP | PW | 14 | 250 | Green (RoHS & no Sb/Br) | CU NIPDAU | Level-1-260C-UNLIM | |
| CD74HCT4075E | ACTIVE | PDIP | N | 14 | 25 | Pb-Free (RoHS) | CU NIPDAU | N / A for Pkg Type | |
| CD74HCT4075EE4 | ACTIVE | PDIP | N | 14 | 25 | Pb-Free (RoHS) | CU NIPDAU | N / A for Pkg Type | |

(1) The marketing status values are defined as follows:

ACTIVE: Product device recommended for new designs.

LIFEBUY: TI has announced that the device will be discontinued, and a lifetime-buy period is in effect.

NRND: Not recommended for new designs. Device is in production to support existing customers, but TI does not recommend using this part in a new design.

PREVIEW: Device has been announced but is not in production. Samples may or may not be available.

OBSOLETE: TI has discontinued the production of the device.

(2) Eco Plan - The planned eco-friendly classification: Pb-Free (RoHS), Pb-Free (RoHS Exempt), or Green (RoHS & no Sb/Br) - please check http://www.ti.com/productcontent for the latest availability information and additional product content details.

TBD: The Pb-Free/Green conversion plan has not been defined.

Pb-Free (RoHS): TI's terms "Lead-Free" or "Pb-Free" mean semiconductor products that are compatible with the current RoHS requirements for all 6 substances, including the requirement that lead not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, TI Pb-Free products are suitable for use in specified lead-free processes.

Pb-Free (RoHS Exempt): This component has a RoHS exemption for either 1) lead-based flip-chip solder bumps used between the die and package, or 2) lead-based die adhesive used between the die and leadframe. The component is otherwise considered Pb-Free (RoHS compatible) as defined above.

Green (RoHS & no Sb/Br): TI defines "Green" to mean Pb-Free (RoHS compatible), and free of Bromine (Br) and Antimony (Sb) based flame retardants (Br or Sb do not exceed 0.1% by weight in homogeneous material)

(3) MSL, Peak Temp. -- The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.

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PACKAGE OPTION ADDENDUM

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OTHER QUALIFIED VERSIONS OF CD54HC4075, CD54HCT4075, CD74HC4075, CD74HCT4075:

- Catalog: CD74HC4075, CD74HCT4075
- Military: CD54HC4075, CD54HCT4075

NOTE: Qualified Version Definitions:

- Catalog TI's standard catalog product
- Military QML certified for Military and Defense Applications

PACKAGE MATERIALS INFORMATION

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TAPE AND REEL INFORMATION

REEL DIMENSIONS



TAPE DIMENSIONS



| A0 | Dimension designed to accommodate the component width |
|----|---|
| В0 | Dimension designed to accommodate the component length |
| K0 | Dimension designed to accommodate the component thickness |
| W | Overall width of the carrier tape |
| P1 | Pitch between successive cavity centers |

TAPE AND REEL INFORMATION

*All dimensions are nominal

| 'All dimensions are nominal | | | | | | | | | | | | |
|-----------------------------|-----------------|--------------------|----|------|--------------------------|--------------------------|------------|------------|------------|------------|-----------|------------------|
| Device | Package Type | Package Drawing | | SPQ | Reel Diameter (mm) | Reel Width W1 (mm) | A0 (mm) | B0 (mm) | K0 (mm) | P1 (mm) | W (mm) | Pin1 Quadrant |
| CD74HC4075M96 | SOIC | D | 14 | 2500 | 330.0 | 16.4 | 6.5 | 9.0 | 2.1 | 8.0 | 16.0 | Q1 |
| CD74HC4075MT | SOIC | D | 14 | 250 | 330.0 | 16.4 | 6.5 | 9.0 | 2.1 | 8.0 | 16.0 | Q1 |
| CD74HC4075NSR | SO | NS | 14 | 2000 | 330.0 | 16.4 | 8.2 | 10.5 | 2.5 | 12.0 | 16.0 | Q1 |
| CD74HC4075PWR | TSSOP | PW | 14 | 2000 | 330.0 | 12.4 | 6.9 | 5.6 | 1.6 | 8.0 | 12.0 | Q1 |
| CD74HC4075PWT | TSSOP | PW | 14 | 250 | 330.0 | 12.4 | 6.9 | 5.6 | 1.6 | 8.0 | 12.0 | Q1 |

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*All dimensions are nominal

| 7 til dillionsions are nominal | | | | | | | |
|--------------------------------|--------------|-----------------|------|------|-------------|------------|-------------|
| Device | Package Type | Package Drawing | Pins | SPQ | Length (mm) | Width (mm) | Height (mm) |
| CD74HC4075M96 | SOIC | D | 14 | 2500 | 367.0 | 367.0 | 38.0 |
| CD74HC4075MT | SOIC | D | 14 | 250 | 367.0 | 367.0 | 38.0 |
| CD74HC4075NSR | SO | NS | 14 | 2000 | 367.0 | 367.0 | 38.0 |
| CD74HC4075PWR | TSSOP | PW | 14 | 2000 | 367.0 | 367.0 | 35.0 |
| CD74HC4075PWT | TSSOP | PW | 14 | 250 | 367.0 | 367.0 | 35.0 |

14 LEADS SHOWN



- A. All linear dimensions are in inches (millimeters).
- B. This drawing is subject to change without notice.
- C. This package is hermetically sealed with a ceramic lid using glass frit.
- D. Index point is provided on cap for terminal identification only on press ceramic glass frit seal only.
- E. Falls within MIL STD 1835 GDIP1-T14, GDIP1-T16, GDIP1-T18 and GDIP1-T20.

FK (S-CQCC-N**)

LEADLESS CERAMIC CHIP CARRIER

28 TERMINAL SHOWN



- A. All linear dimensions are in inches (millimeters).
- B. This drawing is subject to change without notice.
- C. This package can be hermetically sealed with a metal lid.
- D. Falls within JEDEC MS-004



N (R-PDIP-T**)

PLASTIC DUAL-IN-LINE PACKAGE

16 PINS SHOWN



- A. All linear dimensions are in inches (millimeters).
- B. This drawing is subject to change without notice.
- Falls within JEDEC MS-001, except 18 and 20 pin minimum body length (Dim A).
- The 20 pin end lead shoulder width is a vendor option, either half or full width.



D (R-PDSO-G14)

PLASTIC SMALL OUTLINE



- A. All linear dimensions are in inches (millimeters).
- B. This drawing is subject to change without notice.
- Body length does not include mold flash, protrusions, or gate burrs. Mold flash, protrusions, or gate burrs shall not exceed 0.006 (0,15) each side.
- Body width does not include interlead flash. Interlead flash shall not exceed 0.017 (0,43) each side.
- E. Reference JEDEC MS-012 variation AB.



D (R-PDSO-G14)

PLASTIC SMALL OUTLINE



- A. All linear dimensions are in millimeters.
- B. This drawing is subject to change without notice.
- C. Publication IPC-7351 is recommended for alternate designs.
- D. Laser cutting apertures with trapezoidal walls and also rounding corners will offer better paste release. Customers should contact their board assembly site for stencil design recommendations. Refer to IPC-7525 for other stencil recommendations.
- E. Customers should contact their board fabrication site for solder mask tolerances between and around signal pads.



PW (R-PDSO-G14)

PLASTIC SMALL OUTLINE



- A. All linear dimensions are in millimeters. Dimensioning and tolerancing per ASME Y14.5M—1994.
- B. This drawing is subject to change without notice.
- Body length does not include mold flash, protrusions, or gate burrs. Mold flash, protrusions, or gate burrs shall not exceed 0,15 each side.
- Body width does not include interlead flash. Interlead flash shall not exceed 0,25 each side.
- E. Falls within JEDEC MO-153



PW (R-PDSO-G14)

PLASTIC SMALL OUTLINE



- A. All linear dimensions are in millimeters.
- B. This drawing is subject to change without notice.
- C. Publication IPC-7351 is recommended for alternate designs.
- D. Laser cutting apertures with trapezoidal walls and also rounding corners will offer better paste release. Customers should contact their board assembly site for stencil design recommendations. Refer to IPC-7525 for other stencil recommendations.
- E. Customers should contact their board fabrication site for solder mask tolerances between and around signal pads.



MECHANICAL DATA

NS (R-PDSO-G**)

14-PINS SHOWN

PLASTIC SMALL-OUTLINE PACKAGE



- A. All linear dimensions are in millimeters.
- B. This drawing is subject to change without notice.
- C. Body dimensions do not include mold flash or protrusion, not to exceed 0,15.



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| Applications |
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