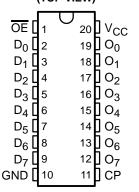
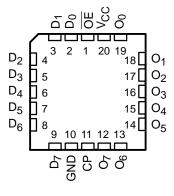
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- Function, Pinout, and Drive Compatible With FCT and F Logic
- Reduced V_{OH} (Typically = 3.3 V) Versions of Equivalent FCT Functions
- Edge-Rate Control Circuitry for Significantly Improved Noise Characteristics
- I_{off} Supports Partial-Power-Down Mode Operation
- Matched Rise and Fall Times
- Fully Compatible With TTL Input and Output Logic Levels
- ESD Protection Exceeds JESD 22
 - 2000-V Human-Body Model (A114-A)
 - 200-V Machine Model (A115-A)
 - 1000-V Charged-Device Model (C101)
- Edge-Triggered D-Type Inputs
- 250-MHz Typical Switching Rate
- CY54FCT574T
 - 32-mA Output Sink Current
 - 12-mA Output Source Current
- CY74FCT574T
 - 64-mA Output Sink Current
 - 32-mA Output Source Current
- 3-State Outputs

CY54FCT574T . . . D PACKAGE CY74FCT574T . . . Q OR SO PACKAGE (TOP VIEW)



CY54FCT574T . . . L PACKAGE (TOP VIEW)



description

The 'FCT574T devices are high-speed, low-power, octal D-type flip-flops, featuring separate D-type inputs for each flip-flop. These devices have 3-state outputs for bus-oriented applications. A buffered clock (CP) and output-enable (\overline{OE}) inputs are common to all flip-flops. The 'FCT574T are identical to 'FCT374T, except for a flow-through pinout to simplify board design. The eight flip-flops in the 'FCT574T store the state of their individual D inputs that meet the setup-time and hold-time requirements on the low-to-high CP transition. When \overline{OE} is low, the contents of the eight flip-flops are available at the outputs. When \overline{OE} is high, the outputs are in the high-impedance state. The state of \overline{OE} does not affect the state of the flip-flops.

These devices are fully specified for partial-power-down applications using I_{off}. The I_{off} circuitry disables the outputs, preventing damaging current backflow through the device when it is powered down.



Please be aware that an important notice concerning availability, standard warranty, and use in critical applications of Texas Instruments semiconductor products and disclaimers thereto appears at the end of this data sheet.



ORDERING INFORMATION

TA	PACI	KAGEŤ	SPEED (ns)	ORDERABLE PART NUMBER	TOP-SIDE MARKING
	QSOP – Q	Tape and reel	5.2	CY74FCT574CTQCT	FCT574C
	SOIC - SO	Tube	5.2	CY74FCT574CTSOC	FCT574C
	3010 - 30	Tape and reel	5.2	CY74FCT574CTSOCT	FC1574C
	QSOP – Q	Tape and reel	6.5	CY74FCT574ATQCT	FCT574A
–40°C to 85°C	C SOIC - SO	Tube	6.5	CY74FCT574ATSOC	FCT574A
	3010 - 30	Tape and reel	6.5	CY74FCT574ATSOCT	FC1574A
	QSOP – Q	Tape and reel	10	CY74FCT574TQCT	FCT574
	SOIC - SO	Tube	10	CY74FCT574TSOC	FCT574
	3010 = 30	Tape and reel	10	CY74FCT574TSOCT	101374
	CDIP – D	Tube	6.2	CY54FCT574CTDMB	
–55°C to 125°C	CDIP – D	Tube	7.2	CY54FCT574ATDMB	
	LCC – L	Tube	7.2	CY54FCT574ATLMB	

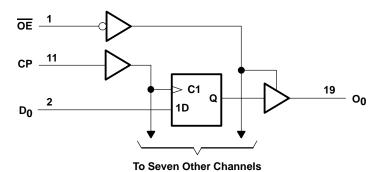
[†] Package drawings, standard packing quantities, thermal data, symbolization, and PCB design guidelines are available at www.ti.com/sc/package.

FUNCTION TABLE

	INPUTS		OUTPUT
D	СР	OE	0
Н	1	L	Н
L	\uparrow	L	L
Х	X	Н	Z

H = High logic level, L = Low logic level, X = Don't care, Z = High-impedance state,

logic diagram (positive logic)



^{↑ =} Low-to-high clock transition

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absolute maximum ratings over operating free-air temperature range (unless otherwise noted)†

Supply voltage range to ground potential	0.5 V to 7 V
DC input voltage range	0.5 V to 7 V
DC output voltage range	0.5 V to 7 V
DC output current (maximum sink current/pin)	120 mA
Package thermal impedance, θ _{JA} (see Note 1): Q package	68°C/W
SO package	58°C/W
Ambient temperature range with power applied, T _A	–65°C to 135°C
Storage temperature range, T _{stq}	–65°C to 150°C

[†] Stresses beyond those listed under "absolute maximum ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under "recommended operating conditions" is not implied. Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

recommended operating conditions (see Note 2)

		CY	54FCT57	4T	4.75 5 5.25 2 0.8 -32			UNIT
		MIN	NOM	MAX	MIN	NOM	MAX	UNIT
Vcc	Supply voltage	4.5	5	5.5	4.75	5	5.25	V
VIH	High-level input voltage	2			2			V
VIL	Low-level input voltage			0.8			0.8	V
ІОН	High-level output current			-12			-32	mA
loL	Low-level output current			32			64	mA
T _A	Operating free-air temperature	-55		125	-40		85	°C

NOTE 2: All unused inputs of the device must be held at V_{CC} or GND to ensure proper device operation.



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

CY54FCT574T, CY74FCT574T 8-BIT REGISTERS WITH 3-STATE OUTPUTS

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electrical characteristics over recommended operating free-air temperature range (unless otherwise noted)

DADAMETED		TEST SOMBITIONS		CY	54FCT57	'4T	CY	2 2.4 3.3 0.3 0.55 0.2 5 ±1 ±1 ±1		UNIT
PARAMETER		TEST CONDITIO	JN5	MIN	TYP [†]	MAX	MIN	TYP [†]	MAX	UNII
Vara	V _{CC} = 4.5 V,	I _{IN} = -18 mA			-0.7	-1.2				V
VIK	$V_{CC} = 4.75 \text{ V},$	I _{IN} = -18 mA						-0.7	-1.2	V
	$V_{CC} = 4.5 \text{ V},$	$I_{OH} = -12 \text{ mA}$		2.4	3.3					
Vон	V _{CC} = 4.75 V	$I_{OH} = -32 \text{ mA}$					2			V
	VCC = 4.75 V	$I_{OH} = -15 \text{ mA}$					2.4	3.3		
Voi	$V_{CC} = 4.5 \text{ V},$	$I_{OL} = 32 \text{ mA}$			0.3	0.55				V
VOL	$V_{CC} = 4.75 \text{ V},$	$I_{OL} = 64 \text{ mA}$						0.3	0.55	V
V_{hys}	All inputs				0.2			0.2		V
1.	$V_{CC} = 5.5 \text{ V},$	VIN = VCC				5				μΑ
IJ	$V_{CC} = 5.25 \text{ V},$	VIN = VCC							5	μΑ
lu i	$V_{CC} = 5.5 \text{ V},$	$V_{1N} = 2.7 V$				±1				μΑ
IIH	$V_{CC} = 5.25 \text{ V},$	$V_{1N} = 2.7 V$							±1	μΛ
In	$V_{CC} = 5.5 \text{ V},$	$V_{IN} = 0.5 V$				±1				μΑ
IIL	$V_{CC} = 5.25 \text{ V},$	$V_{IN} = 0.5 V$							±1	μΛ
l _{off}	$V_{CC} = 0 V$,	V _{OUT} = 4.5 V				±1			±1	μΑ
los‡	$V_{CC} = 5.5 \text{ V},$	VOUT = 0 V		-60	-120	-225				mA
iOS+	$V_{CC} = 5.25 \text{ V},$	VOUT = 0 V					-60	-120	-225	ША
lozu	$V_{CC} = 5.5 \text{ V},$	$V_{IN} = 2.7 \text{ V}$				10				μΑ
IOZH	$V_{CC} = 5.25 \text{ V},$	$V_{IN} = 2.7 \text{ V}$							10	μΛ
1071	$V_{CC} = 5.5 \text{ V},$	V _{IN} = 0.5 V				-10				μА
lozL	$V_{CC} = 5.25 \text{ V},$								-10	μΛ
loo	$V_{CC} = 5.5 V$	$V_{IN} \le 0.2 V$	$V_{IN} \ge V_{CC} - 0.2 \text{ V}$		0.1	0.2				mA
Icc	$V_{CC} = 5.25 \text{ V},$	$V_{IN} \le 0.2 V$	$V_{IN} \ge V_{CC} - 0.2 \text{ V}$					0.1	0.2	IIIA
Alco	$V_{CC} = 5.5 \text{ V}, \text{ V}_{I}$	$N = 3.4 \text{ V}$, $f_1 = 0$,	Outputs open		0.5	2				mA
∆ICC	V _{CC} = 5.25 V, V	$IN = 3.4 \text{ V}$, $f_1 = 0$,	Outputs open		•			0.5	2	IIIA

[†] Typical values are at V_{CC} = 5 V, T_A = 25°C.



Not more than one output should be shorted at a time. Duration of short should not exceed one second. The use of high-speed test apparatus and/or sample-and-hold techniques are preferable to minimize internal chip heating and more accurately reflect operational values. Otherwise, prolonged shorting of a high output can raise the chip temperature well above normal and cause invalid readings in other parametric tests. In any sequence of parameter tests, IOS tests should be performed last.

[§] Per TTL-driven input (V_{IN} = 3.4 V); all other inputs at V_{CC} or GND

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electrical characteristics over recommended operating free-air temperature range (unless otherwise noted) (continued)

PARAMETER ICCD¶		TEST CONDITIO	Ne	CY	'54FCT57	'4T	CY	74FCT57	4T	UNIT
PARAMETER		TEST CONDITIO	on 5	MIN	TYP [†]	MAX	MIN	TYP [†]	MAX	UNII
loop¶		tputs open, g at 50% duty cycle $N \ge V_{CC} - 0.2 V$, OE = GND,		0.06	0.12				mA/
ICCD.		utputs open, g at 50% duty cycle $N \ge V_{CC} - 0.2 V$, OE = GND,					0.06	0.12	MHz
		One bit switching at f ₁ = 5 MHz	$V_{IN} \le 0.2 \text{ V or}$ $V_{IN} \ge V_{CC} - 0.2 \text{ V}$		0.7	1.4				
	$V_{CC} = 5.5 \text{ V},$ $f_0 = 10 \text{ MHz},$	at 50% duty cycle	V _{IN} = 3.4 V or GND		1.2	3.4				
	Outputs open, OE = GND	Eight bits switching at f ₁ = 2.5 MHz	$V_{IN} \le 0.2 \text{ V or}$ $V_{IN} \ge V_{CC} - 0.2 \text{ V}$		1.6	3.2				
l _C		at 50% duty cycle	V _{IN} = 3.4 V or GND		3.9	12.2				mA
10		One bit switching at f ₁ = 5 MHz	$V_{IN} \le 0.2 \text{ V or}$ $V_{IN} \ge V_{CC} - 0.2 \text{ V}$					0.7	1.4	IIIA
	$V_{CC} = 5.25 \text{ V},$ $f_0 = 10 \text{ MHz},$	at 50% duty cycle	V _{IN} = 3.4 V or GND					1.2	3.4	
	Outputs open, OE = GND	Eight bits switching at f ₁ = 2.5 MHz	$V_{IN} \le 0.2 \text{ V or}$ $V_{IN} \ge V_{CC} - 0.2 \text{ V}$					1.6		
		at 50% duty cycle	V _{IN} = 3.4 V or GND					3.9	12.2	
Ci		-			5	10		5	10	pF
Co					9	12		9	12	pF

[†] Typical values are at $V_{CC} = 5 \text{ V}$, $T_A = 25^{\circ}\text{C}$.

Where:

I_C = Total supply current

ICC = Power-supply current with CMOS input levels

 ΔI_{CC} = Power-supply current for a TTL high input ($V_{IN} = 3.4 \text{ V}$)

D_H = Duty cycle for TTL inputs high N_T = Number of TTL inputs at D_H

I_{CCD} = Dynamic current caused by an input transition pair (HLH or LHL)

f₀ = Clock frequency for registered devices, otherwise zero

f₁ = Input signal frequency

 N_1 = Number of inputs changing at f_1

All currents are in milliamperes and all frequencies are in megahertz.

|| Values for these conditions are examples of the I_{CC} formula.



 $[\]P$ This parameter is derived for use in total power-supply calculations.

 $^{^{\#}}$ IC = ICC + Δ ICC \times DH \times NT + ICCD (f₀/2 + f₁ \times N₁)

CY54FCT574T, CY74FCT574T 8-BIT REGISTERS WITH 3-STATE OUTPUTS

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timing requirements over recommended operating free-air temperature range (unless otherwise noted) (see Figure 1)

		CY54FC	T574T	CY54FC1	574AT	CY54FCT	574CT	UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	UNIT
t _W	Pulse duration, CP high or low	7		6		6		ns
t _{su}	Setup time, data before CP↑	2		2		2		ns
t _h	Hold time, data after CP↑	1.5		1.5		1.5	·	ns

timing requirements over recommended operating free-air temperature range (unless otherwise noted) (see Figure 1)

		CY74FC	T574T	CY74FC1	574AT	CY74FCT	574CT	UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	UNIT
t _W	Pulse duration, CP high or low	7		5		5		ns
t _{su}	Setup time, data before CP↑	2		2		2		ns
t _h	Hold time, data after CP↑	1.5		1.5		1.5		ns

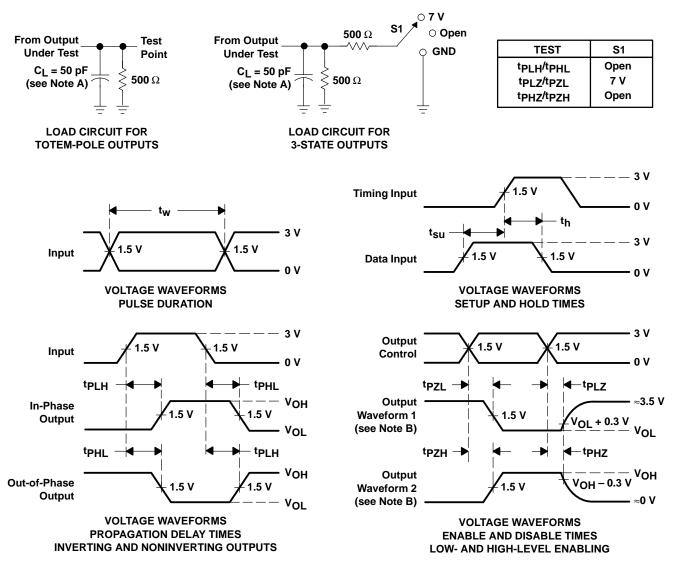
switching characteristics over operating free-air temperature range (see Figure 1)

PARAMETER	FROM	то	CY54FC	T574T	CY54FC	Г574AT	CY54FC1	T574CT	UNIT
PARAMETER	(INPUT)	(OUTPUT)	MIN	MAX	MIN	MAX	MIN	MAX	UNIT
t _{PLH}	СР	0	2	11	2	7.2	2	6.2	20
tpHL	CF	O	2	11	2	7.2	2	6.2	ns
^t PZH	ŌĒ	0	1.5	14	1.5	7.5	1.5	6.2	no
t _{PZL}	OE	O	1.5	14	1.5	7.5	1.5	6.2	ns
t _{PHZ}	ŌĒ	0	1.5	8	1.5	6.5	1.5	5.7	no
tPLZ	OE	O	1.5	8	1.5	6.5	1.5	5.7	ns

switching characteristics over operating free-air temperature range (see Figure 1)

PARAMETER	FROM	то	CY74FC	T574T	CY74FC	Γ574AT	CY74FC1	574CT	UNIT
PARAMETER	(INPUT)	(OUTPUT)	MIN	MAX	MIN	MAX	MIN	MAX	UNIT
^t PLH	СР	0	2	10	2	6.5	2	5.2	ns
^t PHL	OF .		2	10	2	6.5	2	5.2	115
^t PZH	ŌĒ	0	1.5	12.5	1.5	6.5	1.5	5.5	no
^t PZL	OE .	U	1.5	12.5	1.5	6.5	1.5	5.5	ns
^t PHZ	ŌĒ	0	1.5	8	1.5	5.5	1.5	5	no
^t PLZ]		1.5	8	1.5	5.5	1.5	5	ns

PARAMETER MEASUREMENT INFORMATION



NOTES: A. C_L includes probe and jig capacitance.

- B. Waveform 1 is for an output with internal conditions such that the output is low except when disabled by the output control. Waveform 2 is for an output with internal conditions such that the output is high except when disabled by the output control.
- C. The outputs are measured one at a time with one input transition per measurement.

Figure 1. Load Circuit and Voltage Waveforms





25-Sep-2013

PACKAGING INFORMATION

Orderable Device	Status	Package Type		Pins		Eco Plan	Lead/Ball Finish	MSL Peak Temp	Op Temp (°C)	Device Marking	Samples
	(1)		Drawing		Qty	(2)		(3)		(4/5)	
5962-9222203M2A	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	-55 to 125	5962- 9222203M2A CY54FCT 574ATLMB	Samples
5962-9222203MRA	ACTIVE	CDIP	J	20	1	TBD	A42	N / A for Pkg Type	-55 to 125	5962-9222203MR A	Samples
5962-9222205MRA	ACTIVE	CDIP	J	20	1	TBD	A42	N / A for Pkg Type	-55 to 125	5962-9222205MR A	Samples
CY54FCT574ATLMB	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	-55 to 125	5962- 9222203M2A CY54FCT 574ATLMB	Samples
CY74FCT574ATQCT	ACTIVE	SSOP	DBQ	20	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-2-260C-1 YEAR	-40 to 85	FCT574A	Samples
CY74FCT574ATQCTE4	ACTIVE	SSOP	DBQ	20	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-2-260C-1 YEAR	-40 to 85	FCT574A	Samples
CY74FCT574ATQCTG4	ACTIVE	SSOP	DBQ	20	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-2-260C-1 YEAR	-40 to 85	FCT574A	Samples
CY74FCT574ATSOC	ACTIVE	SOIC	DW	20	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574A	Samples
CY74FCT574ATSOCE4	ACTIVE	SOIC	DW	20	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574A	Samples
CY74FCT574ATSOCG4	ACTIVE	SOIC	DW	20	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574A	Samples
CY74FCT574ATSOCT	ACTIVE	SOIC	DW	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574A	Samples
CY74FCT574ATSOCTE4	ACTIVE	SOIC	DW	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574A	Samples
CY74FCT574ATSOCTG4	ACTIVE	SOIC	DW	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574A	Samples
CY74FCT574CTQCT	ACTIVE	SSOP	DBQ	20	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-2-260C-1 YEAR	-40 to 85	FCT574C	Samples
CY74FCT574CTQCTE4	ACTIVE	SSOP	DBQ	20	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-2-260C-1 YEAR	-40 to 85	FCT574C	Samples





25-Sep-2013

Orderable Device	Status	Package Type	_	Pins	_	Eco Plan	Lead/Ball Finish	MSL Peak Temp	Op Temp (°C)	Device Marking	Samples
	(1)		Drawing		Qty	(2)		(3)		(4/5)	
CY74FCT574CTQCTG4	ACTIVE	SSOP	DBQ	20	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-2-260C-1 YEAR	-40 to 85	FCT574C	Samples
CY74FCT574CTSOC	ACTIVE	SOIC	DW	20	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574C	Samples
CY74FCT574CTSOCE4	ACTIVE	SOIC	DW	20	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574C	Samples
CY74FCT574CTSOCG4	ACTIVE	SOIC	DW	20	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574C	Samples
CY74FCT574CTSOCT	ACTIVE	SOIC	DW	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574C	Samples
CY74FCT574CTSOCTE4	ACTIVE	SOIC	DW	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574C	Samples
CY74FCT574CTSOCTG4	ACTIVE	SOIC	DW	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574C	Samples
CY74FCT574TQCT	ACTIVE	SSOP	DBQ	20	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-2-260C-1 YEAR	-40 to 85	FCT574	Samples
CY74FCT574TQCTE4	ACTIVE	SSOP	DBQ	20	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-2-260C-1 YEAR	-40 to 85	FCT574	Samples
CY74FCT574TQCTG4	ACTIVE	SSOP	DBQ	20	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-2-260C-1 YEAR	-40 to 85	FCT574	Samples
CY74FCT574TSOC	ACTIVE	SOIC	DW	20	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574	Samples
CY74FCT574TSOCE4	ACTIVE	SOIC	DW	20	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574	Samples
CY74FCT574TSOCG4	ACTIVE	SOIC	DW	20	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	-40 to 85	FCT574	Samples

⁽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.

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

⁽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.



PACKAGE OPTION ADDENDUM

25-Sep-2013

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.
- (4) There may be additional marking, which relates to the logo, the lot trace code information, or the environmental category on the device.
- (5) Multiple Device Markings will be inside parentheses. Only one Device Marking contained in parentheses and separated by a "~" will appear on a device. If a line is indented then it is a continuation of the previous line and the two combined represent the entire Device Marking for that device.

Important Information and Disclaimer: The information provided on this page represents TI's knowledge and belief as of the date that it is provided. TI bases its knowledge and belief on information provided by third parties, and makes no representation or warranty as to the accuracy of such information. Efforts are underway to better integrate information from third parties. TI has taken and continues to take reasonable steps to provide representative and accurate information but may not have conducted destructive testing or chemical analysis on incoming materials and chemicals. TI and TI suppliers consider certain information to be proprietary, and thus CAS numbers and other limited information may not be available for release.

In no event shall TI's liability arising out of such information exceed the total purchase price of the TI part(s) at issue in this document sold by TI to Customer on an annual basis.

PACKAGE MATERIALS INFORMATION

www.ti.com 26-Jan-2013

TAPE AND REEL INFORMATION





A0	Dimension designed to accommodate the component width
B0	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

QUADRANT ASSIGNMENTS FOR PIN 1 ORIENTATION IN TAPE



*All dimensions are nominal

All differsions 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
CY74FCT574ATQCT	SSOP	DBQ	20	2500	330.0	16.4	6.5	9.0	2.1	8.0	16.0	Q1
CY74FCT574ATSOCT	SOIC	DW	20	2000	330.0	24.4	10.8	13.0	2.7	12.0	24.0	Q1
CY74FCT574CTQCT	SSOP	DBQ	20	2500	330.0	16.4	6.5	9.0	2.1	8.0	16.0	Q1
CY74FCT574CTSOCT	SOIC	DW	20	2000	330.0	24.4	10.8	13.0	2.7	12.0	24.0	Q1
CY74FCT574TQCT	SSOP	DBQ	20	2500	330.0	16.4	6.5	9.0	2.1	8.0	16.0	Q1

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*All dimensions are nominal

Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
CY74FCT574ATQCT	SSOP	DBQ	20	2500	367.0	367.0	38.0
CY74FCT574ATSOCT	SOIC	DW	20	2000	367.0	367.0	45.0
CY74FCT574CTQCT	SSOP	DBQ	20	2500	367.0	367.0	38.0
CY74FCT574CTSOCT	SOIC	DW	20	2000	367.0	367.0	45.0
CY74FCT574TQCT	SSOP	DBQ	20	2500	367.0	367.0	38.0

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