

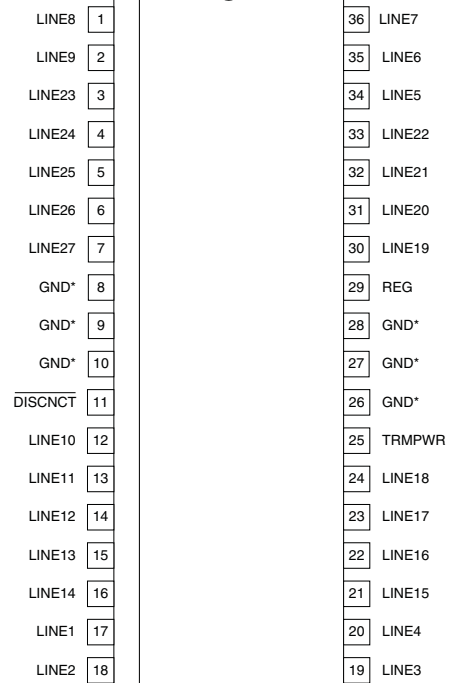
ABSOLUTE MAXIMUM RATINGS

TRMPWR Voltage +7V
 Signal Line Voltage 0V to +7V
 Regulator Output Current 1.5A
 Storage Temperature –65°C to +150°C
 Junction Temperature –55°C to +150°C
 Lead Temperature (Soldering, 10 Sec.) +300°C

*Currents are positive into, negative out of the specified terminal.
 Consult Packaging Section of Databook for thermal limitations
 and considerations of packages.*

CONNECTION DIAGRAM

**QSSOP-36 (Top View)
 MWP Package**



* MWP package pins 8 - 10 and 26 - 28 serve as heatsink/ground.

ELECTRICAL CHARACTERISTICS Unless otherwise stated, these specifications apply for $T_A = 0^\circ\text{C}$ to 70°C ,
 TRMPWR = 4.75V, DISCNCT = 4.75V, $T_A = T_J$.

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Supply Current Section					
TRMPWR Supply Current	All Termination Lines = Open		1	2	mA
	All Termination Lines = 0.2V		630	650	mA
Power Down Mode	DISCNCT = 0V		100	200	μA
Output Section (Termination Lines)					
Termination Impedance	(Note 3)	104.5	110	115.5	Ω
Output High Voltage	(Note 1)	2.6	2.8	3.0	V
Max Output Current	$V_{\text{LINE}} = 0.2\text{V}$, $T_J = 25^\circ\text{C}$	–22.1	–23.3	–24	mA
	$V_{\text{LINE}} = 0.2\text{V}$	–20.7	–23.3	–24	mA
	$V_{\text{LINE}} = 0.2\text{V}$, TRMPWR = 4V, $T_J = 25^\circ\text{C}$ (Note 1)	–21	–23	–24	mA
	$V_{\text{LINE}} = 0.2\text{V}$, TRMPWR = 4V (Note 1)	–20	–23	–24	mA
	$V_{\text{LINE}} = 0.5\text{V}$			22.4	mA
Output Leakage	DISCNCT = 0V, TRMPWR = 0V to 5.25V		10	400	nA
Output Capacitance	DISCNCT = 0V (Note 2)		2.5	4	pF

ELECTRICAL CHARACTERISTICS

ELECTRICAL CHARACTERISTICS Unless otherwise stated, these specifications apply for $T_A = 0^{\circ}\text{C}$ to 70°C , $\text{TRMPWR} = 4.75\text{V}$, $\overline{\text{DISC}}\text{NCT} = 4.75\text{V}$, $T_A = T_J$.

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Regulator Section					
Regulator Output Voltage		2.6	2.8	3.0	V
Drop Out Voltage	All Termination Lines = 0.2V		0.4	0.8	V
Short Circuit Current	V _{REG} = 0V	−650	−900	−1300	mA
Sinking Current Capability	V _{REG} = 3.5V	300	500	900	mA
Thermal Shutdown			170		°C
Thermal Shutdown Hysteresis			10		°C
Disconnect Section					
Disconnect Threshold		0.8	1.5	2.0	V
Input Current	DISCNECT = 0V		−20	−60	μA

Note 1: Measuring each termination line while other 26 are low (0.2V).

Note 2: Ensured by design. Not 100% tested in production.

Note 3: Tested by measuring I_{OUT} with $V_{OUT} = 0.2V$ and V_{OUT} with no load, then calculate: $Z = \frac{V_{OUT} N.L. - 0.2V}{I_{OUT} \text{ at } 0.2V}$

PIN DESCRIPTIONS

DISCNET: Taking this pin low causes all channels to become high impedance, and the chip to go into low-power mode; a high state or leaving it open allows the channels to provide normal termination.

GND: Ground reference for the IC.

LINE1 - LINE27: 110Ω termination channels.

REG: Output of the internal 2.7V regulator; bypass with a 4.7 μ F capacitor to GND.

TRMPWR: Power for the IC; bypass with a 4.7 μ F capacitor to GND.

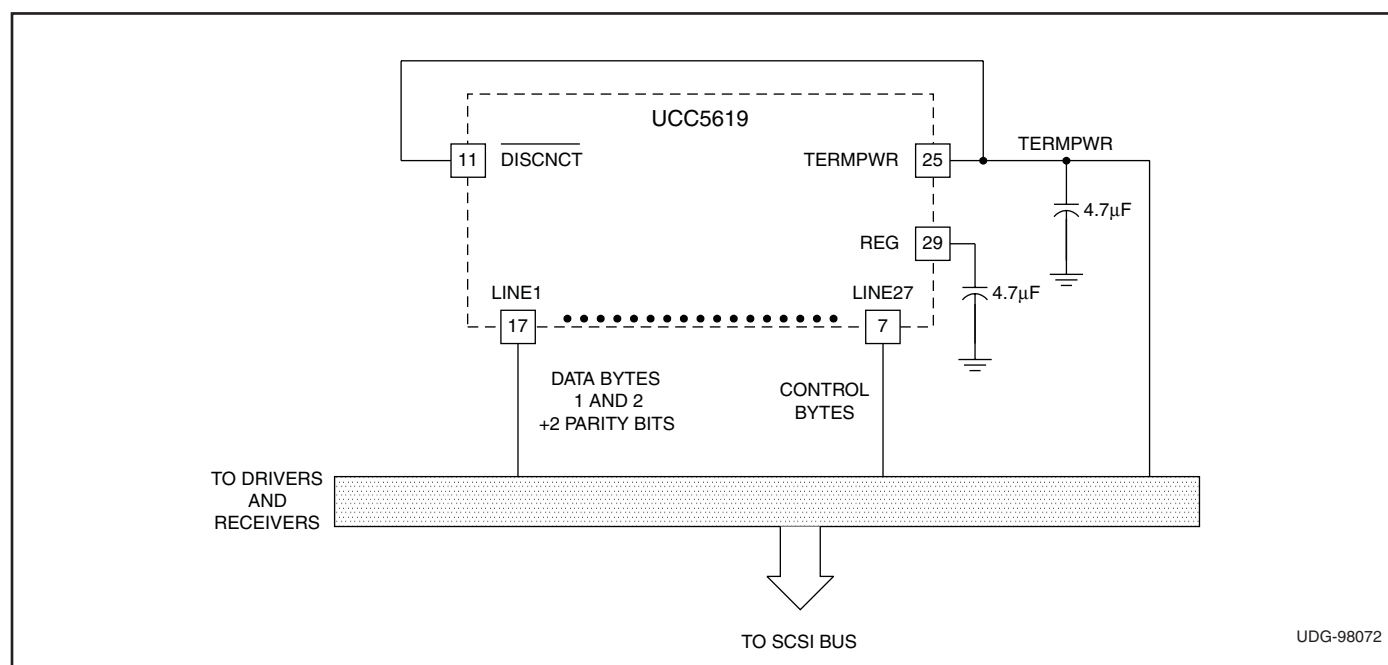


Figure 1. Typical wide SCSI bus configuration using the UCC5619

PACKAGING INFORMATION

Orderable Device	Status ⁽¹⁾	Package Type	Package Drawing	Pins	Package Qty	Eco Plan ⁽²⁾	Lead/Ball Finish	MSL Peak Temp ⁽³⁾
UCC5619MWP	ACTIVE	SSOP	DCE	36	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
UCC5619MWPG4	ACTIVE	SSOP	DCE	36	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
UCC5619MWPTR	ACTIVE	SSOP	DCE	36	1000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
UCC5619MWPTRG4	ACTIVE	SSOP	DCE	36	1000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM

⁽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.

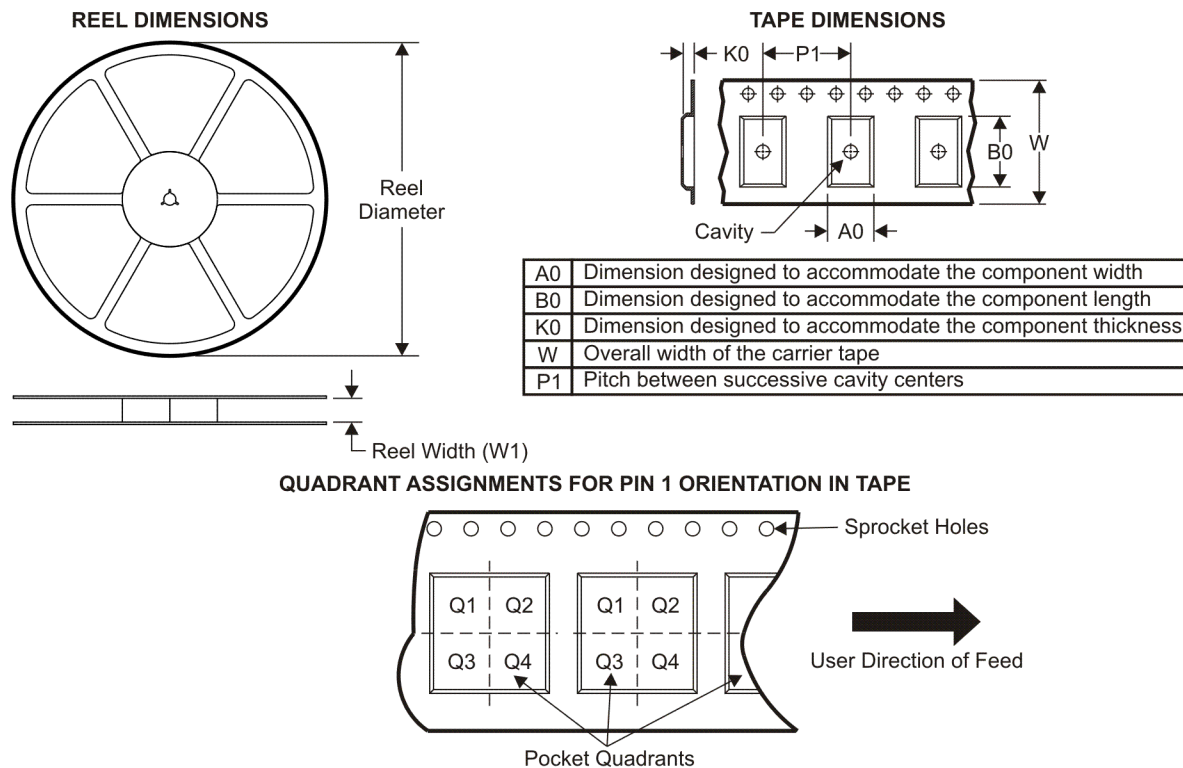
Green (RoHS & no Sb/Br): TI defines "Green" to mean Pb-Free (RoHS compatible), and free of Bromine (Br) and Antimony (Sb) based flame retardants (Br or Sb do not exceed 0.1% by weight in homogeneous material)

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

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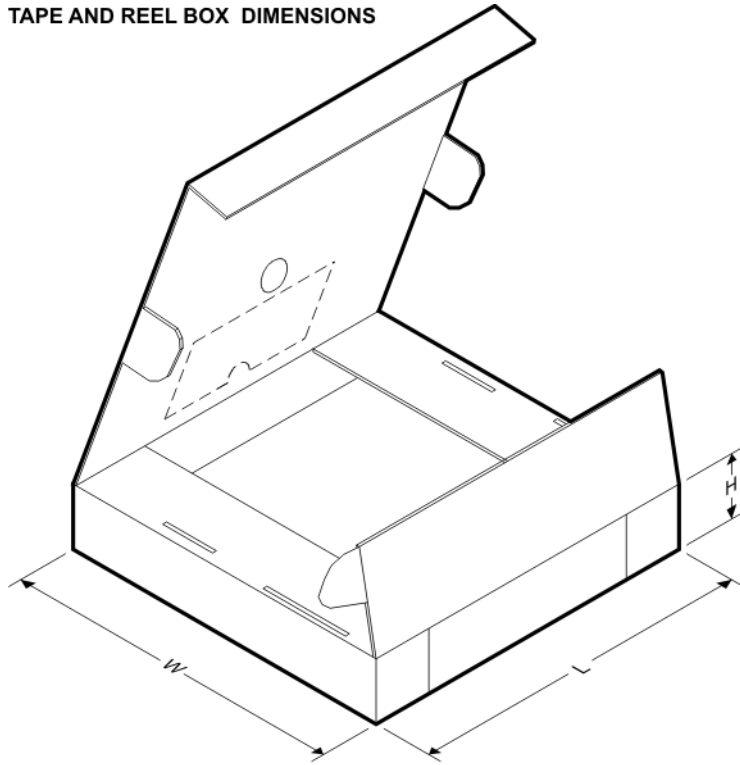
TAPE AND REEL INFORMATION



*All dimensions are nominal

Device	Package Type	Package Drawing	Pins	SPQ	Reel Diameter (mm)	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin1 Quadrant
UCC5619MWPTR	SSOP	DCE	36	1000	330.0	24.4	10.85	15.8	2.7	12.0	24.0	Q1

TAPE AND REEL BOX DIMENSIONS



*All dimensions are nominal

Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
UCC5619MWPTR	SSOP	DCE	36	1000	346.0	346.0	41.0

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