



**THE DATASHEET OF
UCC5619MWP**

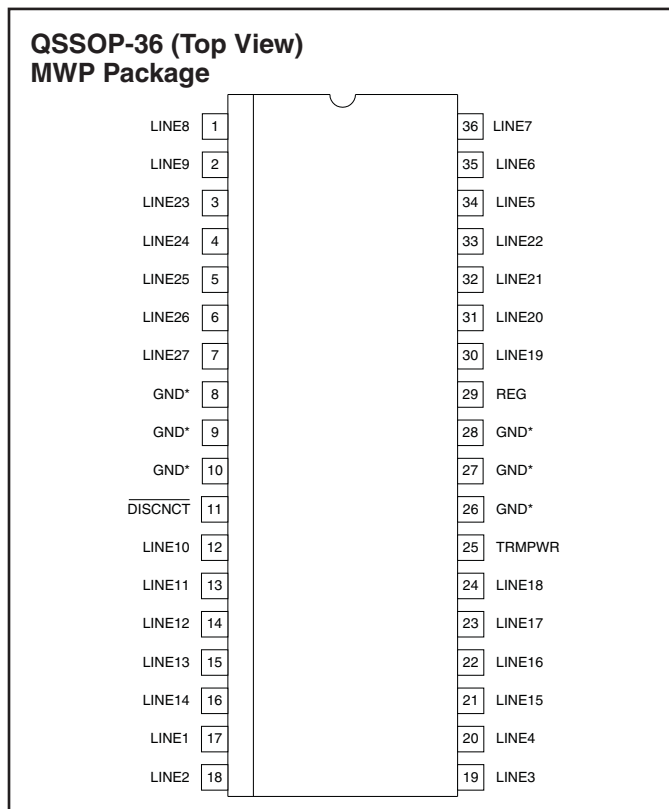


ABSOLUTE MAXIMUM RATINGS

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



* 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	$V_{LINE} = 0.2V, T_J = 25^\circ\text{C}$	-22.1	-23.3	-24	mA
	$V_{LINE} = 0.2V$	-20.7	-23.3	-24	mA
	$V_{LINE} = 0.2V, TRMPWR = 4V, T_J = 25^\circ\text{C}$ (Note 1)	-21	-23	-24	mA
	$V_{LINE} = 0.2V, TRMPWR = 4V$ (Note 1)	-20	-23	-24	mA
	$V_{LINE} = 0.5V$			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 Unless otherwise stated, these specifications apply for $T_A = 0^{\circ}\text{C}$ to 70°C , $\text{TRMPWR} = 4.75\text{V}$, $\text{DISCNCNT} = 4.75\text{V}$, $T_A = T_J$.

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	$V_{\text{REG}} = 0\text{V}$	-650	-900	-1300	mA
Sinking Current Capability	$V_{\text{REG}} = 3.5\text{V}$	300	500	900	mA
Thermal Shutdown			170		$^{\circ}\text{C}$
Thermal Shutdown Hysteresis			10		$^{\circ}\text{C}$
Disconnect Section					
Disconnect Threshold		0.8	1.5	2.0	V
Input Current	$\overline{\text{DISCNCNT}} = 0\text{V}$		-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 $V_{\text{OUT}} = 0.2\text{V}$ and V_{OUT} with no load, then calculate: $Z = \frac{V_{\text{OUT N.L.}} - 0.2\text{V}}{I_{\text{OUT at 0.2V}}}$

PIN DESCRIPTIONS

DISCNCNT: 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 4.7μF capacitor to GND.

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

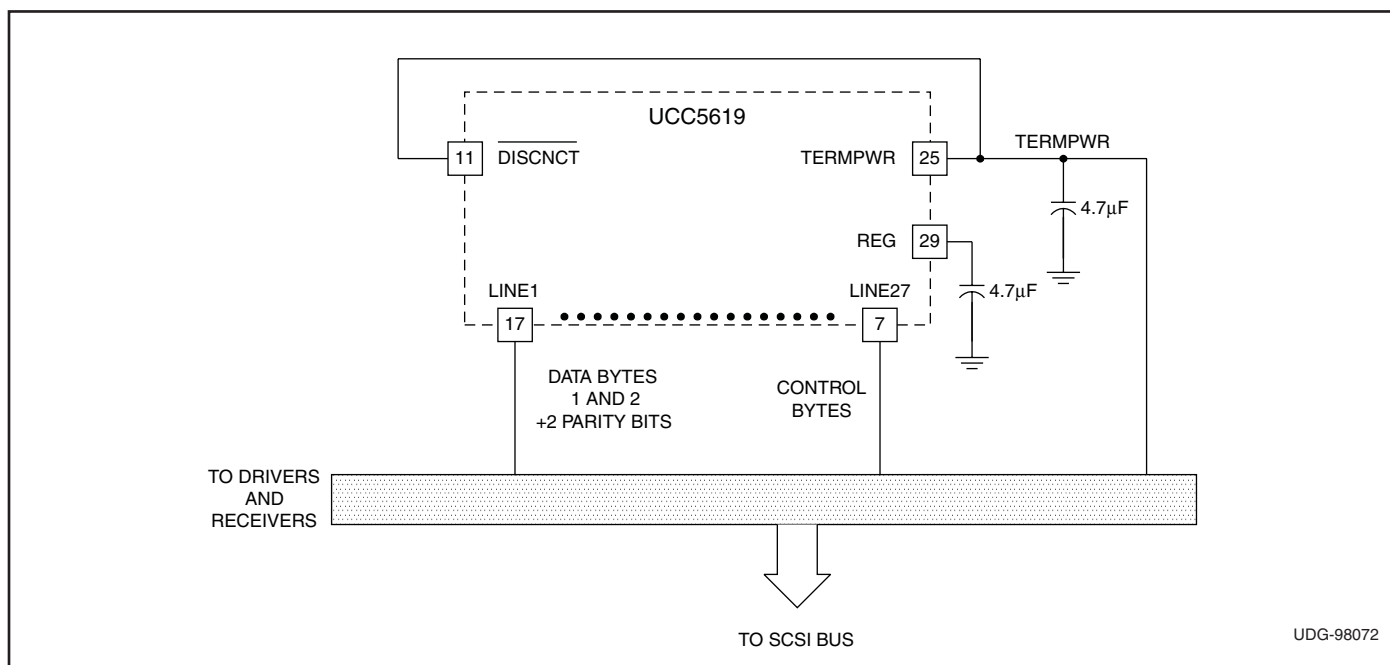


Figure 1. Typical wide SCSI bus configuration using the UCC5619

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.

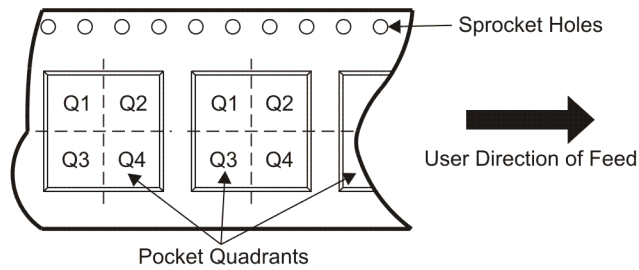
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TAPE AND REEL INFORMATION



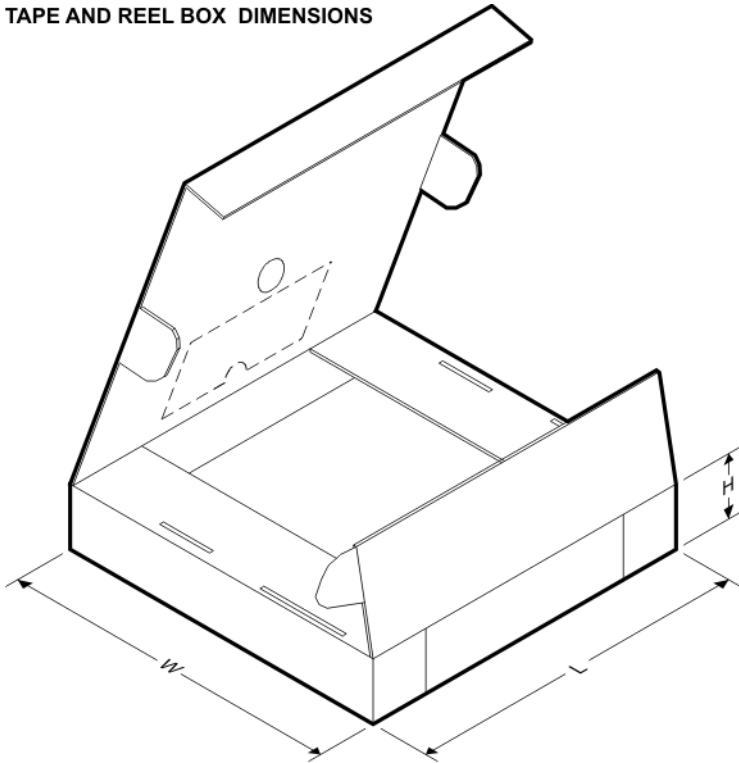
QUADRANT ASSIGNMENTS FOR PIN 1 ORIENTATION IN TAPE



*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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