

Single-Ended UltraSCSI Terminators

- ◆ Designed for FAST-20 SCSI Operation
- ◆ New Adaptive, Non-Linear Architecture
- ◆ 35MHz Bandwidth
 - High signal integrity
 - Lower error rate
- ◆ 24mA Continuous Line Drive
- ◆ Low Bus Loading with Under 3pF Output Capacitance
- ◆ Eliminate Costly Capacitors
 - No regulator compensation capacitor
 - No transient response capacitor
- ◆ Dallas, Linfinity and Unitrode Pinouts



The performance limitations and high system cost imposed by first generation, linear regulator based SCSI terminators are overcome with the IMP non-linear terminator architecture. Linear terminators require two external regulator capacitors for stability and high-frequency transient response. IMP uses a non-linear, 35MHz output structure that eliminates the stabilization and transient response capacitors, saving space and reducing cost. High bandwidth ensures signal integrity and robust Fast-20 designs.

Bus current is supplied from adaptive non-linear circuitry. By maximizing the continuous 24mA line current, the result is a near ideal terminator. Compared with linear regulator/resistor terminators, the new

IMP non-linear terminators supply higher current at any voltage below 2.5V.

Pin-for-pin replacements offering wider bandwidth and requiring no external regulator output capacitors are available for the popular Dallas DS21S07A and for many Unitrode devices. SCSI peripherals in current production can benefit immediately.

Reduced component count, maximum 24mA current capability, 35MHz bandwidth and "Real World" cable matching capability add up to a low cost, reliable terminator solution for new and old UltraSCSI designs.

Selection Guide

PART NUMBER	LINES	SCSI STANDARD 1, 2, 3 FAST-20	SLEEP CURRENT (μ A)	OUTPUT CAPACITANCE	HOT SWAP	PLUG & PLAY	ENABLED	SAMPLES AVAILABLE	PRODUCTION STATUS
IMP5111	9	✓	275	<3pF	Yes	No	High	Now	Full
IMP5112	9	✓	275	<3pF	Yes	No	Low	Now	Full
IMP5115	9	✓	375	<3pF	Yes	No	High	Now	Full
IMP5218	9	✓	275	<3pF	Yes	Yes	Low	Now	Full
IMP5219	9	✓	275	<3pF	Yes	No	High	Now	Full
IMP5121	27	✓	375	<3pF	Yes	Yes	High	Now	Full
IMP5225	18	✓	275	<3pF	Yes	No	H/L	Now	Full
IMP5226	18	✓	275	<3pF	Yes	No	Low	Now	Full

Single-Ended SCSI Terminator Cross Reference

**Data Sheet &
Sample Order Form**

PART NUMBER IMP	LINES	PACKAGE TYPE	PART NUMBER				FREE SAMPLE ✓	DATA SHEET ✓
			DALLAS	LINFINITY	MOTOROLA	UNITRODE		
IMP5111CDP	9	16-pin Plastic SOIC, Power		LX5111CDP LX5211DP		UC5605DP UCC5606DP	<input type="checkbox"/>	<input type="checkbox"/>
IMP5111CPWP	9	24-pin Plastic TSSOP, Power		LX5111CPWP		UC5605PWP UCC5606PWP	<input type="checkbox"/>	<input type="checkbox"/>
IMP5112CDP	9	16-pin Plastic SOIC, Power		LX5112CDP LX5212DP		UC5603DP UC5604DP UC5612DP UC5613DP UCC5614DP	<input type="checkbox"/>	<input type="checkbox"/>
IMP5112CPWP	9	24-pin Plastic TSSOP, Power		LX5112CPWP LX5212PWP		UC5604PWP UC5612PWP UC5613PWP UCC5614PWP	<input type="checkbox"/>	<input type="checkbox"/>
IMP5115CD	9	16-pin Plastic SOIC	DS2105Z	LX5107CD LX5115CD			<input type="checkbox"/>	<input type="checkbox"/>
IMP5115CDW	9	16-pin Plastic SOWB	DS21S07AS DS21T07S DS2105S	LX5107CDW LX5115CDW	MCCS142237DW		<input type="checkbox"/>	<input type="checkbox"/>
IMP5115CPWP	9	20-pin Plastic TSSOP, Power	DS21S07AE DS21T07E	LX5107CPWP LX5115CPWP	MCCS142237DT		<input type="checkbox"/>	<input type="checkbox"/>
IMP5218CDW	9	16-pin Plastic SOWB		LX5218CDW			<input type="checkbox"/>	<input type="checkbox"/>
IMP5218CPW	9	20-pin Plastic TSSOP		LX5218CPW			<input type="checkbox"/>	<input type="checkbox"/>
IMP5219CDW	9	16-pin Plastic SOWB		LX5219CDW			<input type="checkbox"/>	<input type="checkbox"/>
IMP5219CPW	9	20-pin Plastic TSSOP		LX5219CPW			<input type="checkbox"/>	<input type="checkbox"/>
IMP5225CDB	18	28-pin Plastic SSOP		LX5205CDB LX5225CDB			<input type="checkbox"/>	<input type="checkbox"/>
IMP5225CDWP	18	28-pin Plastic SOWB, Power	DS2109S	LX5205CDWP LX5225CDWP		UC5607DWP UCC5611DWP UCC5617DWP	<input type="checkbox"/>	<input type="checkbox"/>
IMP5226CDB	18	28-pin Plastic SSOP		LX5226CDB			<input type="checkbox"/>	<input type="checkbox"/>
IMP5226CDWP	18	28-pin Plastic SOWB, Power		LX5207CDWP LX5226CDWP	MCCS142236DW	UC5601DWP UC5602DWP UC5608DWP UCC5610DWP UCC5618DWP	<input type="checkbox"/>	<input type="checkbox"/>
IMP5121CPW	27	56-pin Plastic TSSOP		LX5121CPW			<input type="checkbox"/>	<input type="checkbox"/>
IMP5121CDB	27	44-pin Plastic SSOP		LX5121CDB			<input type="checkbox"/>	<input type="checkbox"/>

Name:	Title:
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Issue Date: 08/08/05

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