
PRODUCT CHANGE NOTICE

**Data Sheet Specification
Change for Intersil Product
ISL43L220IRZ and
ISL43L220IRZ-T**

**Refer to:
PCN13020**

Date: February 28, 2013

February 28, 2013

To: Our Valued Intersil Customer

Subject: **Data Sheet Specification Change for Intersil Product ISL43L220IRZ and ISL43L220IRZ-T**

This notice is to inform you that Intersil has changed the data sheet specification for the ISL43L220IRZ and ISL43L220IRZ-T products. The changes to the *Thermal Information* section and *Electrical Specifications - 4.3V Supply* table align the data sheet with the product characteristics and are necessary to maintain product manufacturability in support of customer delivery requirements. Details regarding the change are contained on the following pages. The updated data sheet is available on the Intersil web site at <http://www.intersil.com/content/dam/Intersil/documents/fn60/fn6093.pdf>.

There have been no changes made to the die/silicon. There will be no change in external marking of the packaged parts. Parts affected by this change are identifiable via Intersil's internal traceability system.

Intersil will take all necessary actions to conform to agreed upon customer requirements and to ensure the continued high quality and reliability of Intersil products being supplied. Customers may expect to receive product electrically screened to the revised data sheet beginning *ninety* days from the date of this notification or earlier with approval.

If you have concerns with this notice, Intersil must hear from you promptly. Please contact the nearest Intersil Sales Office or call the Intersil Corporate line at 1-888-468-3774, in the United States, or 1-321-724-7143 outside of the United States.

Regards,



Jon Brewster
Intersil Corporation

PCN13020

CC: J. Touvell W. Choroco R. Pitts

PA13020 Data Sheet Updates

From:

Absolute Maximum Ratings

V+ to GND	-0.3 to 4.7V
Input Voltages	
NO, NC, IN (Note 2)	-0.3 to ((V+) + 0.3V)
Output Voltages	
COM (Note 2)	-0.3 to ((V+) + 0.3V)
Continuous Current NO, NC, or COM	±300mA
Peak Current NO, NC, or COM	
(Pulsed 1ms, 10% Duty Cycle, Max)	±500mA
ESD Rating:	
HBM	>9kV
MM	>500V
CDM	>1kV

Thermal Information

Thermal Resistance (Typical, Note 3)	θ_{JA} (°C/W)
10 Ld 3x3 DFN Package	110
Maximum Junction Temperature (Plastic Package)	150°C
Maximum Storage Temperature Range	-65°C to 150°C
Maximum Lead Temperature (Soldering 10s)	300°C
(Lead Tips Only)	

Operating Conditions

Temperature Range	
ISL43L220IR	-40°C to 85°C

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.

NOTES:

- Signals on NC, NO, IN, or COM exceeding V+ or GND are clamped by internal diodes. Limit forward diode current to maximum current ratings.
- θ_{JA} is measured with the component mounted on a low effective thermal conductivity test board in free air. See Tech Brief TB379 for details.

Electrical Specifications - 4.3V Supply

Test Conditions: V+ = +3.9V to +4.5V, GND = 0V, V_{INH} = 1.6V, V_{INL} = 0.5V (Notes 4, 6), Unless Otherwise Specified

PARAMETER	TEST CONDITIONS	TEMP (°C)	(NOTE 5) MIN	TYP	(NOTE 5) MAX	UNITS
ANALOG SWITCH CHARACTERISTICS						
Analog Signal Range, V _{ANALOG}		Full	0	-	V+	V
ON Resistance, R _{ON}	V+ = 3.9V, I _{COM} = 100mA, V _{NO} or V _{NC} = 0V to V+ (See Figure 5)	25	-	0.23	0.35	Ω
		Full	-	-	0.35	Ω
R _{ON} Matching Between Channels, ΔR _{ON}	V+ = 3.9V, I _{COM} = 100mA, V _{NO} or V _{NC} = Voltage at max R _{ON} (Note 9)	25	-	0.03	0.06	Ω
		Full	-	-	0.06	Ω
R _{ON} Flatness, R _{FLAT(ON)}	V+ = 3.9V, I _{COM} = 100mA, V _{NO} or V _{NC} = 0V to V+ (Note 7)	25	-	0.03	0.08	Ω
		Full	-	-	0.08	Ω
NO or NC OFF Leakage Current, I _{NO(OFF)} or I _{NC(OFF)}	V+ = 4.5V, V _{COM} = 0.3V, 3V, V _{NO} or V _{NC} = 3V, 0.3V	25	-45	-	45	nA
		Full	-110	-	110	nA
COM ON Leakage Current, I _{COM(ON)}	V+ = 4.5V, V _{COM} = 0.3V, 3V, or V _{NO} or V _{NC} = 0.3V, 3V, or Floating	25	-45	-	45	nA
		Full	-100	-	100	nA

PA13020 Data Sheet Updates

To:

Absolute Maximum Ratings

V+ to GND	-0.3 to 4.7V
Input Voltages	
NO, NC, IN (Note 5)	-0.3 to ((V+) + 0.3V)
Output Voltages	
COM (Note 5)	-0.3 to ((V+) + 0.3V)
Continuous Current NO, NC, or COM	±300mA
Peak Current NO, NC, or COM (Pulsed 1ms, 10% Duty Cycle, Max)	±500mA
ESD Rating:	
HBM	>9kV
MM	>500V
CDM	>1kV

Thermal Information

Thermal Resistance (Typical, Notes 6, 7)	θ_{JA} ($^{\circ}\text{C}/\text{W}$)	θ_{JC} ($^{\circ}\text{C}/\text{W}$)
10 Ld 3x3 DFN Package	47	10.5
Maximum Junction Temperature (Plastic Package)	150 $^{\circ}\text{C}$	
Maximum Storage Temperature Range	-65 $^{\circ}\text{C}$ to 150 $^{\circ}\text{C}$	
Maximum Lead Temperature (Soldering 10s) (Lead Tips Only)	300 $^{\circ}\text{C}$	
Pb-Free Reflow Profile	see link below http://www.intersil.com/pbfree/Pb-FreeReflow.asp	

Operating Conditions

Temperature Range	-40 $^{\circ}\text{C}$ to 85 $^{\circ}\text{C}$
ISL43L220IR	

CAUTION: Do not operate at or near the maximum ratings listed for extended periods of time. Exposure to such conditions may adversely impact product reliability and result in failures not covered by warranty.

NOTES:

- Signals on NC, NO, IN, or COM exceeding V+ or GND are clamped by internal diodes. Limit forward diode current to maximum current ratings.
- θ_{JA} is measured in free air with the component mounted on a high effective thermal conductivity test board with "direct attach" features. See Tech Brief [TB379](#).
- For θ_{JC} , the "case temp" location is the center of the exposed metal pad on the package underside.

Electrical Specifications - 4.3V Supply

Test Conditions: V+ = +3.9V to +4.5V, GND = 0V, V_{INH} = 1.6V, V_{INL} = 0.5V (Notes 8, 10), Unless Otherwise Specified

PARAMETER	TEST CONDITIONS	TEMP (°C)	(NOTE 9) MIN	TYP	(NOTE 9) MAX	UNITS
ANALOG SWITCH CHARACTERISTICS						
Analog Signal Range, V _{ANALOG}		Full	0	-	V+	V
ON Resistance, R _{ON}	V+ = 3.9V, I _{COM} = 100mA, V _{NO} or V _{NC} = 0V to V+ (See Figure 5)	25	-	0.23	0.35	Ω
		Full	-	-	0.35	Ω
R _{ON} Matching Between Channels, ΔR_{ON}	V+ = 3.9V, I _{COM} = 100mA, V _{NO} or V _{NC} = Voltage at max R _{ON} (Note 13)	25	-	0.03	0.06	Ω
		Full	-	-	0.06	Ω
R _{ON} Flatness, R _{FLAT(ON)}	V+ = 3.9V, I _{COM} = 100mA, V _{NO} or V _{NC} = 0V to V+ (Note 11)	25	-	0.03	0.08	Ω
		Full	-	-	0.08	Ω
NO or NC OFF Leakage Current, I _{NO(OFF)} or I _{NC(OFF)}	V+ = 4.5V, V _{COM} = 0.3V, 3V, V _{NO} or V _{NC} = 3V, 0.3V	25	-60	-	60	nA
		Full	-110	-	110	nA
COM ON Leakage Current, I _{COM(ON)}	V+ = 4.5V, V _{COM} = 0.3V, 3V, or V _{NO} or V _{NC} = 0.3V, 3V, or Floating	25	-60	-	60	nA
		Full	-100	-	100	nA