

Exar Corporation

[www.exar.com](http://www.exar.com) | Support: customersupport@exar.com

**PRODUCTS AFFECTED:** XRP7664IDTR-F

**CHANGE CATEGORY:**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Material          | <input type="checkbox"/> Process              | <input type="checkbox"/> Package          |
| <input checked="" type="checkbox"/> Design | <input checked="" type="checkbox"/> Datasheet | <input type="checkbox"/> Packing/Shipping |
| <input type="checkbox"/> Other (specify)   |   |   |

**DESCRIPTION OF CHANGE:**

**FROM:**

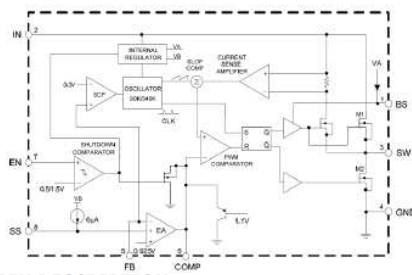
**OPERATING RATINGS**

Input Voltage  $V_{IN}$  ..... 4.75V to 18V

**ELECTRICAL SPECIFICATIONS**

Parameter	Min.	Typ.	Max.	Units	Conditions
Quiescent Current		1.0	1.2	mA	$V_{IN}=2V, V_{FB}=1V$
Feedback Voltage $V_{FB}$	0.900	0.925	0.950	V	*
Feedback Overvoltage Threshold		1.1		V	
High-Side switch On Resistance $R_{OSOHM}$ (Note 2)		120		m $\Omega$	$I_{SW}=0.2A\&0.7A$
Low-Side switch On Resistance $R_{OSOLM}$ (Note 2)		110		m $\Omega$	$I_{SW}=-0.2A\&-0.7A$
Oscillator Frequency $F_{OSC1}$	300	340	380	kHz	
EN Threshold $V_{ENH}$	1.5			V	
EN Threshold $V_{ENL}$			0.5	V	
UVLO Threshold	3.65	4.00	4.45	V	$V_{IN}$ Rising
UVLO Hysteresis		0.30		V	
Soft-start Time (Note 1)		10		ms	$C_{SS}=0.1\mu F, I_{O(EN)}=500mA$

**BLOCK DIAGRAM**



**PIN DESCRIPTION**

Name	Pin Number	Description
EN	7	Control input pin. Forcing this pin above 1.5V enables the IC. Forcing this pin below 0.5V shuts down the IC. When the IC is in shutdown mode all functions are disabled to decrease the supply current below 1 $\mu$ A.

**TO:**

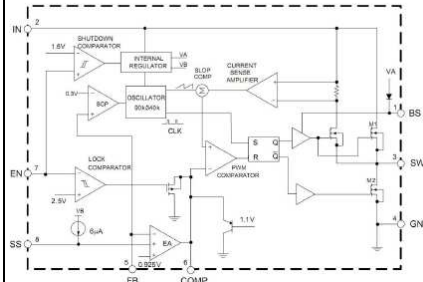
**OPERATING RATINGS**

Input Voltage  $V_{IN}$  ..... 4.50V to 18V

**ELECTRICAL SPECIFICATIONS**

Parameter	Min.	Typ.	Max.	Units	Conditions
Shutdown Supply Current		0.1	10	$\mu$ A	$V_{IN}\leq 0.75V$
Quiescent Current		1.2	1.4	mA	$V_{IN}=3V, V_{FB}=1V$
Feedback Voltage $V_{FB}$	0.907	0.925	0.943	V	
High-Side switch On Resistance $R_{OSOHM}$ (Note 2)		100		m $\Omega$	$I_{SW}=0.2A\&0.7A$
Low-Side switch On Resistance $R_{OSOLM}$ (Note 2)		100		m $\Omega$	$I_{SW}=-0.2A\&-0.7A$
Oscillator Frequency $F_{OSC1}$	280	340	400	kHz	
EN Enable Threshold	2.2	2.5	2.7	V	
EN Enable Threshold Voltage Hysteresis (Note 1)		210		mV	
UVLO Threshold	3.65	4.00	4.25	V	$V_{IN}$ Rising
UVLO Hysteresis		0.20		V	
Soft-start Time (Note 1)		15		ms	$C_{SS}=0.1\mu F$

**BLOCK DIAGRAM**



**PIN DESCRIPTION**

Name	Pin Number	Description
EN	7	Control input pin. Forcing this pin above 2.7V enables the IC. Forcing this pin below 0.75V shuts down the IC. Pull up to $V_{IN}$ with 100k $\Omega$ resistor for automatic startup.

**PROPRIETARY INFORMATION**

THIS DOCUMENT CONTAINS INFORMATION WHICH IS THE EXCLUSIVE PROPERTY OF EXAR CORPORATION. DISTRIBUTION, REPRODUCTION OR USE BY OTHERS IS NOT PERMITTED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF EXAR CORPORATION.



# Product Change Notice

PCN Number: 13-0402-01  
Issue Date: 4/17/2013

**Exar Corporation**

[www.exar.com](http://www.exar.com) | Support: [customersupport@exar.com](mailto:customersupport@exar.com)

**REASON FOR CHANGE:**

Product Improvement and compatibility with industry equivalent devices.

**FORM, FIT, FUNCTION CHANGE:**  YES  NO

**IMPACT OF CHANGE:**

New Data Sheet attached.

**TARGET IMPLEMENTATION DATE:** 2-Apr-2013

Please contact customer support ([customersupport@exar.com](mailto:customersupport@exar.com)) for sample date availability or qualification data

**PROPRIETARY INFORMATION**

THIS DOCUMENT CONTAINS INFORMATION WHICH IS THE EXCLUSIVE PROPERTY OF EXAR CORPORATION. DISTRIBUTION, REPRODUCTION OR USE BY OTHERS IS NOT PERMITTED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF EXAR CORPORATION.