Product Change Notice

Ref. Number: 13-0402-02
Issue Date: 04-08-2013

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CATEGORY:

- ☐ Material
- ☒ Design
- ☐ Process
- ☒ Datasheet
- ☐ Package
- ☐ Packing/Shipping
- ☐ Other (specify)

DETAILS:

REASON FOR CHANGE:
Product Improvement and compatibility with industry equivalent devices.

DESCRIPTION OF CHANGE: Die Revision

From:

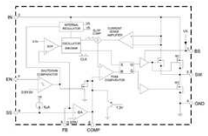
OPERATING RATINGS

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

ELECTRICAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Units		Conditions
utdown Supply Current		0.1	10	µA		V_{EN}=0V
escent Current		1.0	1.2	mA		V_{EN}=2V, V_{FB}=1V
dback Voltage V_{FB}	0.900	0.925	0.950	V	•	
h-Side switch On Resistance $_{ONH}$ (Note 2)		100		mΩ		I_{SW}=0.2A&0.7A
v-Side switch On Resistance $_{ONL}$ (Note 2)		90		mΩ		I_{SW}=-0.2A&-0.7A
illator Frequency F_{OSC1}	300	340	380	kHz		
Threshold V_{ENH}	1.5			V		
Threshold V_{ENL}			0.5			
O Threshold	3.65	4.00	4.45	V		V_{IN} Rising
O Hysteresis		0.30		V		
t-start Time (Note 1)		15		ms		C_{SS}=0.1µF, I_{OUT}=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 1µA.

Plus all typical performance characteristic curves and related text and description.

To:

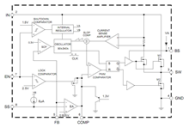
OPERATING RATINGS

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

ELECTRICAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Units		Conditions
Shutdown Supply Current		0.1	10	µA		V_{EN}≤0.75V
Quiescent Current		1.2	1.4	mA		V_{EN}=3V, V_{FB}=1V
Feedback Voltage V_{FB}	0.907	0.925	0.943	V		
High-Side switch On Resistance R_{DSONH} (Note 2)		100		mΩ		I_{SW}=0.2A&0.7A
Low-Side switch On Resistance R_{DSONL} (Note 2)		100		mΩ		I_{SW}=-0.2A&-0.7A
Oscillator Frequency F_{OSC1}	280	340	400	kHz		
EN Enable Threshold Voltage	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}=0.1µF

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 VIN with 100kΩ for automatic startup.

All typical performance characteristic curves and related text and description within document.

ENABLE FUNCTION

The XRP7665 is enabled by raising the voltage on the EN pin above 2.5V nominally. Connect the EN pin to the VIN via a 100kΩ resistor for automatic start-up. Shutdown is achieved by pulling the EN pin voltage below 1.1V nominally.

CUSTOMER IMPACT OF CHANGE:
New Data Sheet attached.

Qualification date: February 20, 2013

Target Implementation date: February 20, 2013

Please contact customer support (customersupport@exar.com) for sample date availability or reliability data.

Affected Part Numbers: XRP7665IDBTR-F

Product Description: Please refer to www.exar.com