

Ref. Des.	Description Order Code
U1	MagI ³ C Power Module (1710X3801)
C1	Aluminum electrolytic capacitor 220 μ F/50V (865060657012)
CIN	2 x Ceramic chip capacitor 4.7 μ F/50V (885012209048)
CVCC	Ceramic chip capacitor 1 μ F/16V (885012207051)
COUT	2 x Ceramic chip capacitor 47 μ F/16V (885012109011)
C9	Aluminum polymer capacitor 220 μ F/16V (875115350002)
Cf	2 x Ceramic chip capacitor 4.7 μ F/50V (optional) (885012209048)
Lf	Filter inductor, 1 μ H, PD2 (optional) (7447732010)
R1	0 Ω resistor bridge
RENT	not mounted
RENB	not mounted
RPG	1 M Ω
RFBT	402 k Ω
J1	Jumper for EN connection to either VIN (device enabled) or GND (device disabled) (61300311121)
J2	Jumper for switching frequency selection. Only one resistor should be selected at a time (61300311121)
J3	Jumper for output voltage selection. Only one resistor should be selected at a time (61301421121)
J4	Jumper to enable & disable spread spectrum behavior (61301421121)

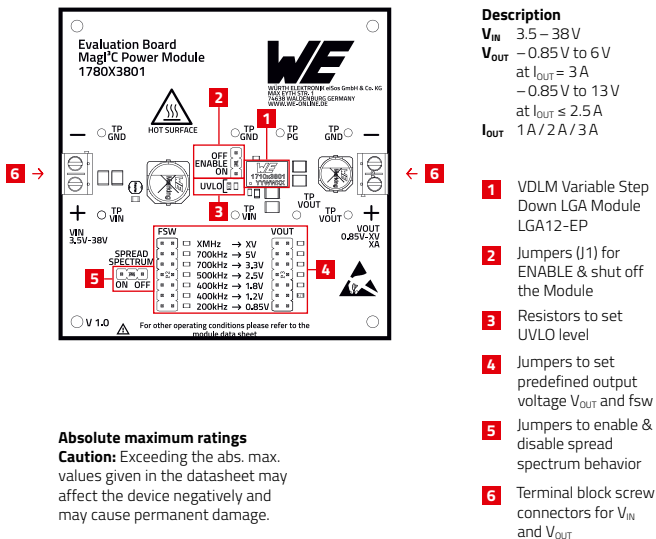
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RFBB	Set by jumper
	30.1 k Ω for $V_{OUT} = 12V$ (1A/2A version)
	64.9 k Ω for $V_{OUT} = 6V$ (3A version)
	80.6 k Ω for $V_{OUT} = 5V$
	137 k Ω for $V_{OUT} = 3.3V$
	205 k Ω for $V_{OUT} = 2.5V$
	357 k Ω for $V_{OUT} = 1.8V$ (default setting)
RFSW*	Set by jumper
	976 k Ω for $V_{OUT} = 1.2V$
	open for $V_{OUT} = 0.85V$
	18.2 k Ω for Fsw = 1.5 MHz (1A/2A version)
	10 k Ω for Fsw = 1 MHz (3A version)
	5.6 k Ω for Fsw = 700 kHz
	3.3 k Ω for Fsw = 500 kHz
RFSW*	Set by jumper
	0 Ω for Fsw = 400 kHz (default setting)
	1.8 k Ω for Fsw = 200 kHz

**Switching frequency in continuous conduction mode*

For Layout, Gerber and Step files visit us on www.we-online.com/catalog/en/MAGIC-VDLM



OVERVIEW



Absolute maximum ratings

Caution: Exceeding the abs. max. values given in the datasheet may affect the device negatively and may cause permanent damage.

This evaluation board is intended to be operated in a research and development environment under the supervision of qualified technicians and engineers who are trained and experienced in the safe use of electronics. This evaluation board was designed and tested according to CISPR32 Class B standards under Würth Elektronik laboratory test conditions, as indicated in the data sheet of

the corresponding power module. Operation in other test setups may cause unintended electrical behavior and exceed the stated performance and limits imposed by the CISPR32 Class B standards. This evaluation board is not intended for usage in final applications. This evaluation board is not intended for resale.

