Partner presentation

Quarter 3/2020

flex

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About us

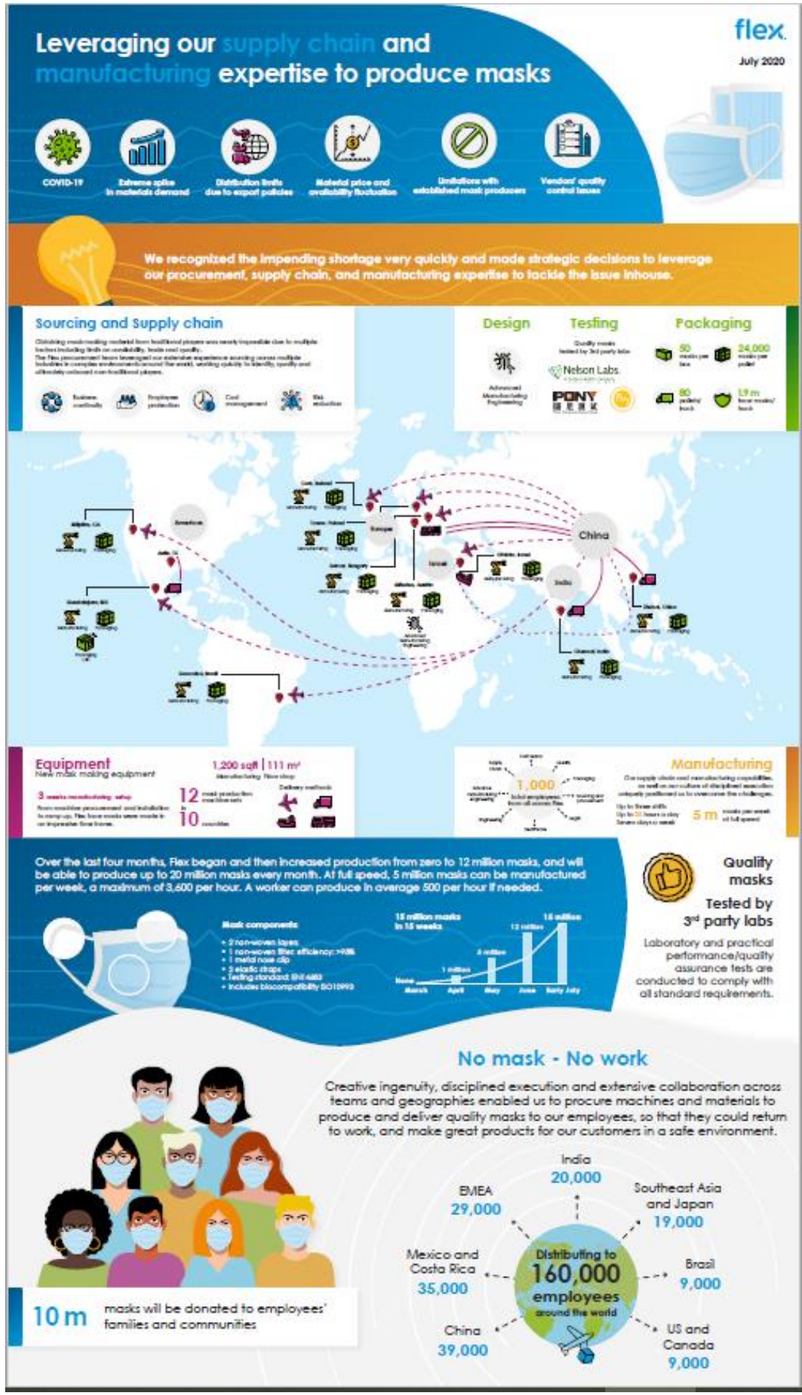
ISO 9001 recertification process

- Flex corporate requires own ISO certifications for all independent entities
- Flex Power Modules Sweden is preparing an ISO recertification for R&D, PM and Sales scheduled for October 2020
- Flex Power Modules Shanghai was ISO certified in the area of production in 2019 and will be recertified in operations, R&D, PM and Sales in October 2020

About us • Create the extraordinary

Flex@Corona

- Consequences of Corona have become financially visible within certain departments in Flex
- Flex Power Modules has achieved a good results in Q2 and Q3/2020 with strong development in datacom and telecom segments
- Flex corporate has established many initiatives such as **production of masks** overcoming the challenges of a short time frame, no experience and no equipment
- Result: within 22 weeks 30 million masks produced
- For info is found on the web



Product information

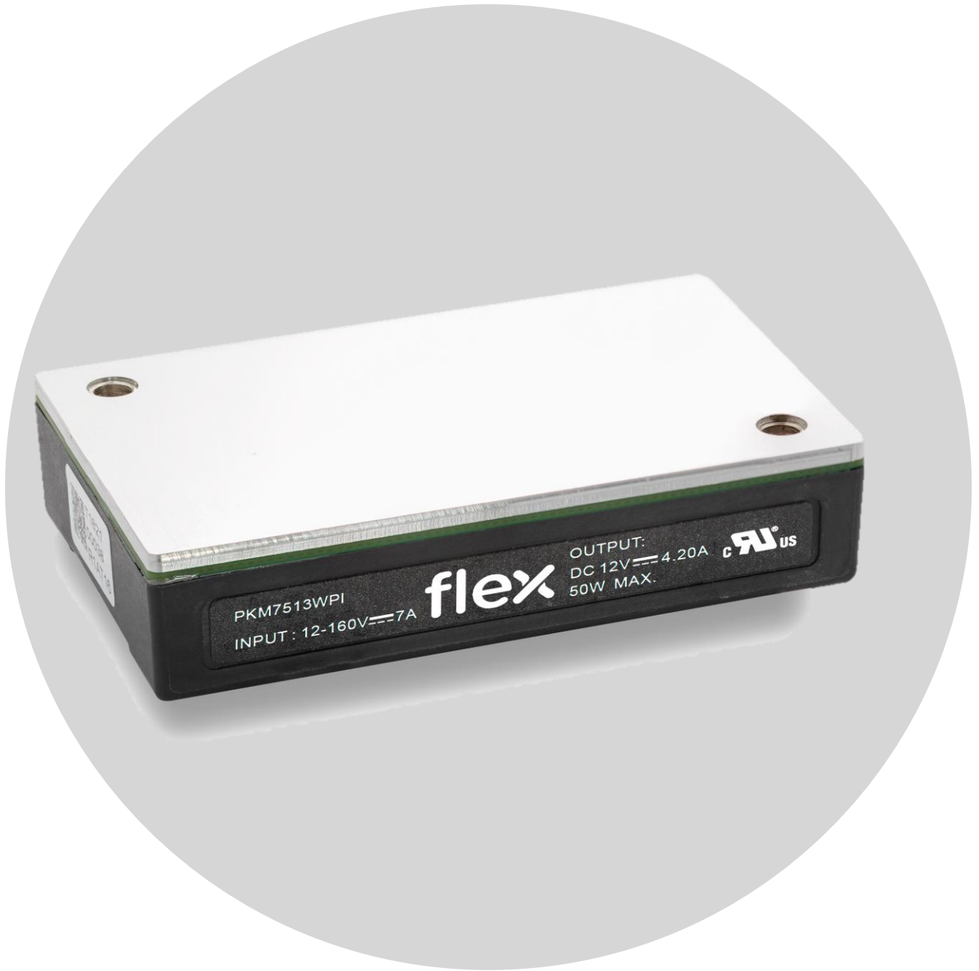
Recently released or upcoming new products

Refresh: PKM7500W and PKM7100W

Key features:

- Ultra-wide input voltage range
- Fully encapsulated quarter brick converter
- Excellent price/performance ratio

	PKM7500W	PKM7100W
Mechanical		
Dimensions	57.91 x 36.8 x 12.7 mm	
Electrical specs		
Input voltage range	12 – 160 V	14-160 V
Output voltage	5/12/13.8/15/24/48/54 V	
Output power	50 W	100 W
Efficiency	Up to 90 %	
Isolation	4000 V	
Other features		
Release date	**Released**	**Released August/20**



RAILWAY INDUSTRIAL

BMR683 • RFPA

Key features:

- Digital quarter brick DC/DC up to 500 W P_{out}
- Designed for high power LDMOS and GAN RFPA applications
- High efficiency with 95.5%

	BMR683
Mechanical	
Dimensions	58.4 * 36.8 * 12.7mm (2.3 * 1.45 * 0.5 in)
Electrical specs	
Input voltage range	36 - 60V
Output voltage	18 – 32 V
Output power/current	500W / 17.9A
Efficiency	95.5 %
Isolation	1500 V
Other features	
Release date	**September 2020**

TELECOM

BMR491 • digital high-power DC/DC

Key features:

- Digital quarter brick DC/DC
- Up to 2250 W peak power
- 48-60V & 40-60V input variants
- 12V nominal output
- High efficiency up to 97.6%

BMR491		
Regulation	HRR	Fixed output regulation
Dimensions	58.4 * 36.8 * 12.7mm (2.3 * 1.45 * 0.5 in)	
Electrical specs		
Input voltage range	48 – 60 V	40 – 60 V
Output voltage	12 V	12 V
Output power/peak power	1300 W / 1850 W	1300 W
Efficiency	97. 6 % half load, Vin 48 V	97. 4 % half load, Vin 48 V
Isolation	1500 V	1500 V
Other features		
Release date	**Q4 2020**	**Q4 2020**

TELECOM DATACOM

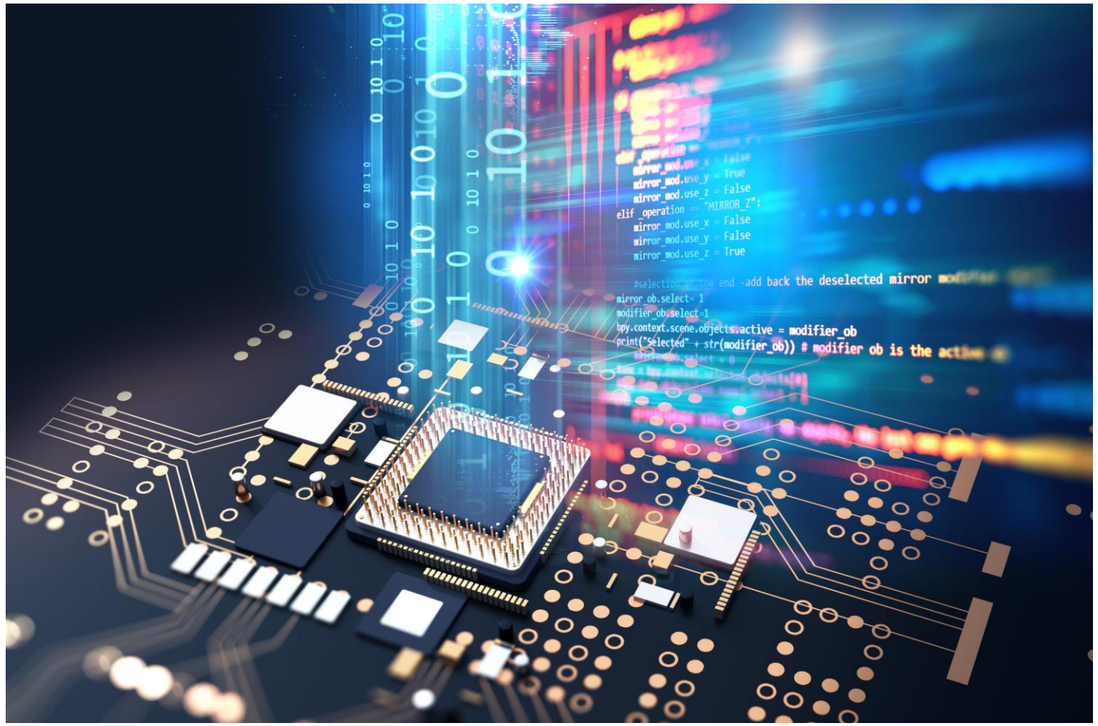
Software

Flex Power Designer our free of charge software tool to design, monitor and improve power systems.

Flex Power Designer release 4.0.1

Key features:

- **Reference design for FPGAs**
  - Importing load data from Xilinx Power Estimator
  - System optimization for finding products and optimizing bus voltage
  - Droop compensation and include accuracy for V_{out} in Loop Compensator
- **Support for BMR491**
- **Support for PMU**



Short intro video for FPD available on website
Click here

Roadmap

Product roadmap monthly updated and available from your Sales contact

Roadmap datacom

NEW | Aug | Q4 | Q1-21 | 2021

BMR492

BMR491

BMR491

P — BMR492
40-60 V/ 600 W
12 V full V_{in} range

F — BMR492
40-60 V / 700 W
950 W peak
9.2 -10.4 V_{out}

P — BMR491
48-60 V/1300 W
1850 W peak
11.4 - 12V HRR

P — BMR491
40-60 V/1300 W
12 V full V_{in} range

F — BMR491
48-60 V/1300 W
10,4 V HRR

F — BMR491
48-60 V/1540 W
2400 W peak
12 V HRR

R= released | P= planned | F= future project

Roadmap datacom

NEW | Aug | Q4 | Q1-21 | 2021

BMR510

F

BMR510
4.5 – 16 V_{in}
1.5 V_{out}

BMR482

F

BMR482
40-60 V_{in}
1 V / 100 A

BMR474

F

BMR474
6-14.4 V /
Max198 W
0.6 -3.3 V_{out}

R= released P= planned F= future project

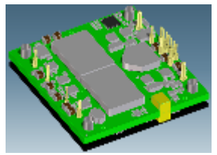
Roadmap telecom

NEW | Aug | Q4 | Q1-21 | 2021

BMR683

P
BMR683 **RFPA**
36-60 V/28 V
500 W / digital

F
BMR683 **RFPA**
36-75 V/50 V
500 W / digital



BMR685

P
BMR685 **RFPA**
36-75 V/50 V
1300 W / digital

R= released P= planned F= future project

Roadmap industrial & transportation

NEW | Aug | Q3 | Q4 | 2021

PUB-B

- PUB-1B **4000 V isolation 1 W** — R
- PUB-2B **4000 V isolation 2 W** — R

PUC-B

- PUC-1B **6000 V isolation 1 W** — R
- PUC-2B **6000 V isolation 2 W** — R

PNA

- PNA **24 V_{in} analog** — F
- PNA **24 V_{in} digital** — F

R= released P= planned F= future project

Flex Power Designer tool

Release 4.0

Date: Released

Features:

- Support for BMR491
- Reference design for FPGAs
- Interactive technical specification
- Xilinx load based design.

Release 4.1

Date: January 2021

Features:

- Support for BMR492 (Shasta controller)
- Xilinx extended support
- Thermal model for BMR491 and BMR492

Release 4.2

Date: August 2021

Features:

- Switched cap module (BMR310) support

Miscellaneous

Information about events, new brochures etc.

Miscellaneous

Collateral:

Selection Guide Q3/Q4 2020 available on our website

Webinar:

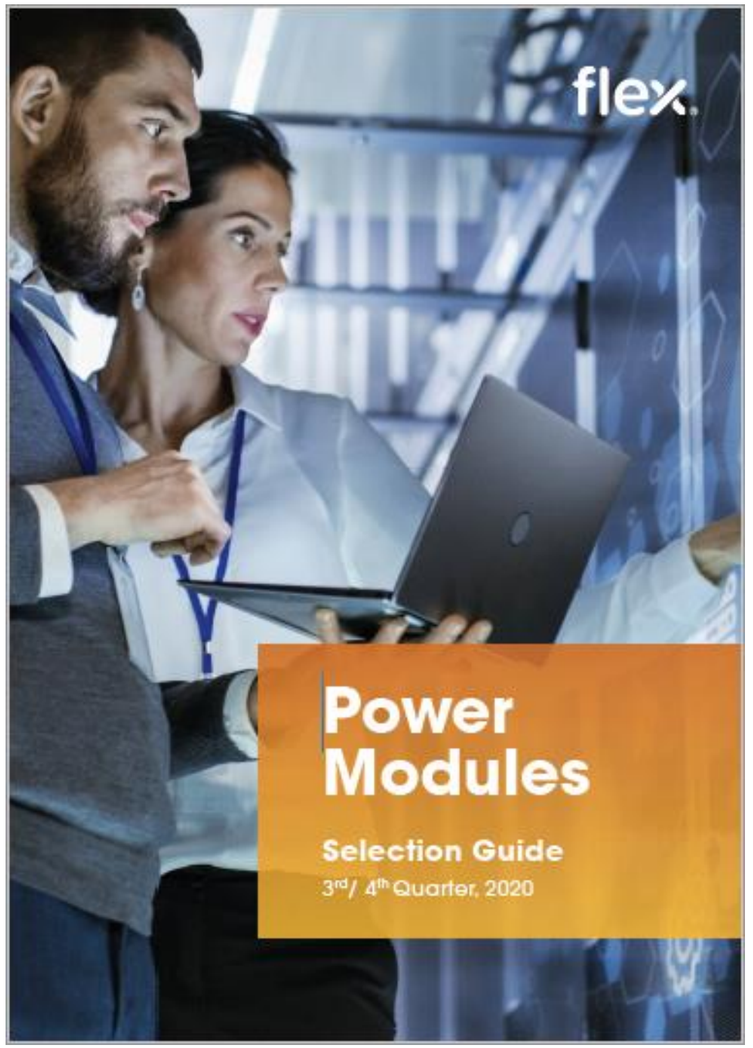
Topic: FPD release 4.0 scheduled for 5th November – more info soon on our web

Events:

OCP Global Summit, San Jose 3-4.03.2021

Innotrans, Berlin, 27-30.04.2021

Electronica, Shanghai, 14-16.04.2021



flex

Powering your innovation